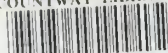
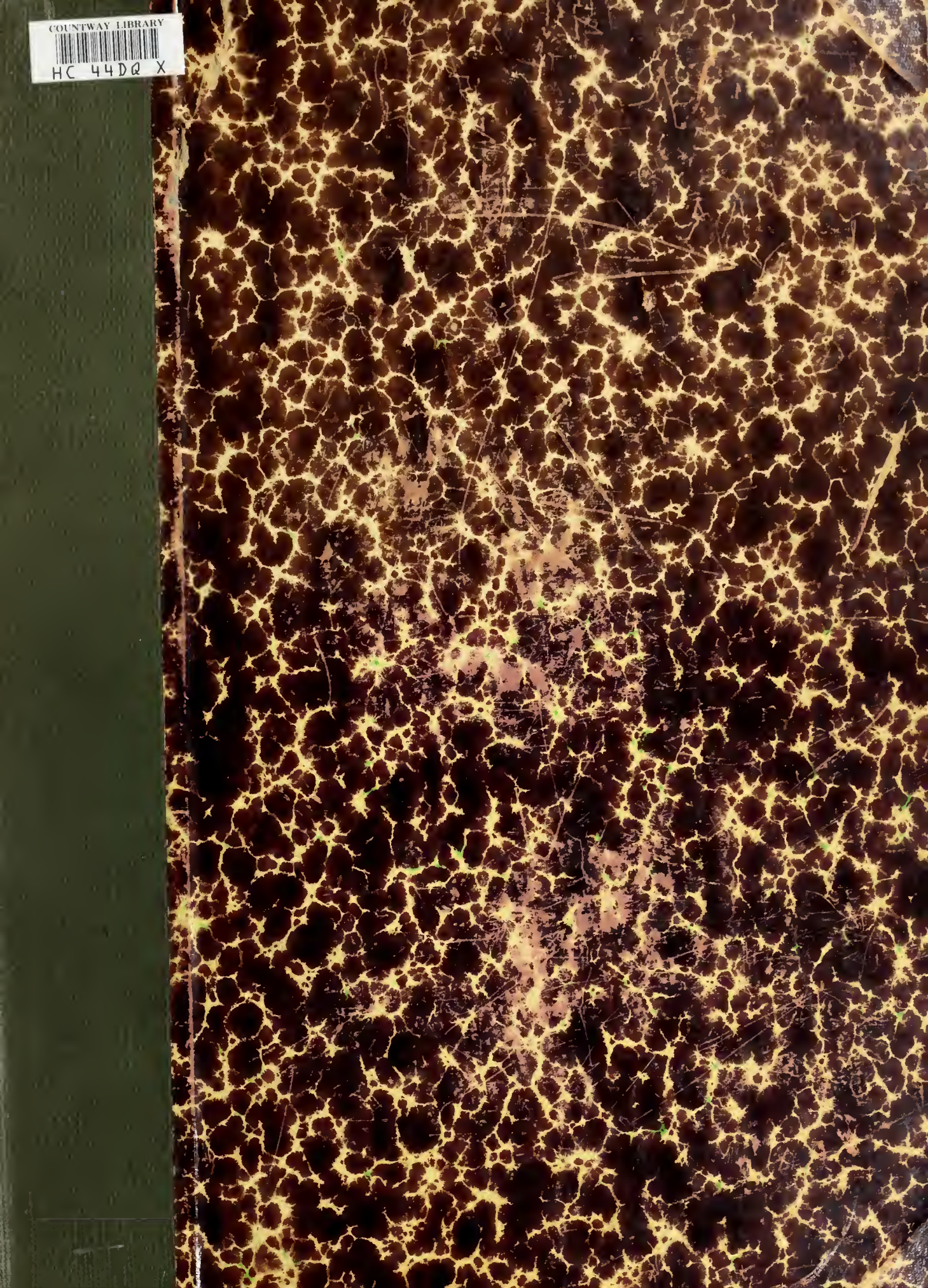


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THE PENNSYLVANIA MEDICAL JOURNAL

OCTOBER, 1933 - SEPTEMBER, 1934

REPRESENTING

THE TRANSACTIONS OF THE MEDICAL SOCIETY
OF THE STATE OF PENNSYLVANIA

AT ITS ANNUAL SESSION HELD AT

PHILADELPHIA, PA., OCTOBER, 1933

VOLUME LXIII

(VOLUME XXXVII OF THE JOURNAL)

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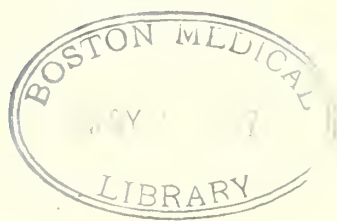
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VOL. XXXVII

HARRISBURG, PA., OCTOBER, 1933

No. 1

ADDRESS OF THE PRESIDENT*

DONALD GUTHRIE, M.D., SAYRE, PA.

It is impossible for me, in the time allotted for this address, to review reports of commissions on medical education, on social trends, and on the costs of medical care, or to discuss the many important problems in medical economics which face the profession.

It behooves every thoughtful physician to keep himself well-informed upon these important problems and I know of no better way for him to acquire this knowledge than to review them carefully in our State JOURNAL, a publication of great excellence and regarded by other state medical societies as one of the best of the state medical journals. Correct information upon all these vital and important questions which concern the public's and the physician's welfare is available in the monthly issues.

The function of the county medical society is no longer one of entire scientific assembly, for it has many new and important interests and its relation to the public upon all matters of health is one of its most important functions.

I should like to reopen the question of full-time executive secretaries for the county medical society. The larger societies are able to employ these full-time secretaries but the smaller societies are unable to create such offices. In these bad times many societies have been loathe to vote an additional expenditure of money. We must not lose sight of the fact that to cope with and solve the perplexing problems which confront the profession, it will be necessary for the society to spend more of its money, but that the great return to be derived to the society in having an executive secretary serve as a liaison officer between the public and the society on matters of common interest far outweighs the sum expended. The medical profession would be

assured that the presentation to the public of its aims, its duties, and its attitude upon great questions which involve the public welfare would be correctly given and not garbled by the press or destroyed by the heat of argument. If additional funds might be available by increasing the per-capita assessment, five or six qualified young men could be trained in the office of the secretary and sent out to serve groups of the smaller societies. The benefit of such a plan, to my mind, would be very great and lasting.

Ladies and gentlemen, if we are to attain the enviable position held by the New York State Medical Society and a few other societies, our per-capita assessment should be increased. This society is blessed by having faithful devoted officers and I feel that I am expressing to you their feeling in this matter.

The medical profession has always shown a rare unselfishness and altruism in performing its work, but during these years of the depression it has been called upon to perform a heroic task and, in a glorious spirit, it has met the unusual challenge of taking care of the indigent and those temporarily unemployed in spite of the fact that the majority of its members have been in severe economic straits themselves. The great service rendered by the profession, particularly by the profession of this State, has been noteworthy and its wonderful work has been monumental. But there are limits to which sacrifices can be made, and now we have come to the point at which the physician is physically and economically unable to bear any further increase in the terrific mass of indigent sick that has swept upon him in this wave of depression, submerging and in some cases almost ruining him.

The care of the indigent has always been the medical profession's own personal charity, but it is time to change this and have the different

* Read before the General Meeting of the Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

counties in the state appropriate monies for medical care, just as these same counties appropriate money for clothing, fuel, and shelter for these unfortunates. It is hoped a sum of money budgeted for this medical care will be given to the county society to dispense on a fee basis to those members who choose to do this work.

H. L. Hopkins, Federal Relief Administrator, has recently announced rules covering the expenditure of federal funds for medical, nursing, and dental care of the sick and destitute unemployed persons who are on the relief. The use of this money for medical care is limited to service in the home and office calls—the object of the plan is to retain the traditional family and family-physician relationship in the authorization of medical care for the indigent persons in their homes, the traditional physician-nurse relationship in the authorization of bedside nursing care, and the traditional dentist-patient relationship in emergency dental care. These funds cannot be used to pay hospital bills or for treatment in nursing homes and dispensaries. The medical, dental, and nursing organizations will be asked to designate advisory committees to work with the relief executives in the states in formulating more adequate and uniform policies.

The science of medicine has always undergone evolutionary and progressive advancement and every physician in order to keep in close touch with these advances must continually study the recent developments in medicine. "The profession and the public are coming to realize that medical science is unbreakably linked with medical education. The medical profession is rooted in medical education and will not rise higher than the soil in which it grows!" Appreciating this fact, many of the state medical societies have adopted plans of postgraduate extension teaching to help the practicing physicians, who live away from the teaching centers.

THE NEW YORK PLAN

The New York State Medical Society through its Public Health and Medical Education Committee has engaged in postgraduate extension teaching since 1925 and the plan is financed out of its per-capita assessment fund. A course of 5 lectures is given during the winter months and the work has actually reached 47 counties, representing approximately 70 per cent of the membership of the State Society. The annual expenditure is \$7000 to \$8000. In 1922, the Medical Society of the County of Kings adopted as one of its functions the supplying of postgraduate medical education and arranged with Long Island College Hospital for a joint com-

mittee to offer courses for general practitioners. The courses are held during afternoons in 12 hospitals. Informal lectures, clinics, and bedside teaching are carried out. A registration fee of \$10 is charged and in 4 years there has been a total registration of 955. Postgraduate courses to practicing physicians are also held at the Albany Medical College, University of Buffalo, University of Rochester, and the College of Medicine at Syracuse.

THE MICHIGAN PLAN

A study made by the Michigan State Medical Society revealed the fact that 50 per cent of the practicing physicians had never had any postgraduate instruction of any kind. The postgraduate teaching began in 1919 and is still functioning. The Michigan State Medical Society defrays the traveling expenses of speakers before the district conferences and all incidental expenses. The annual expenditure is \$4000 to \$5000.

THE WISCONSIN PLAN

Wisconsin began postgraduate work in 1928. It has package library service, short courses and institutes, and systematic lectures are also given. The speakers are furnished by the University Extension Division without cost to the counties.

THE OHIO PLAN

Ohio State Medical Society in coöperation with the medical schools, hospitals, county societies, and the State Board of Health has conducted intensive courses of a week's duration for the benefit of the district societies. Prominent physicians of this and other countries are invited to lecture and conduct clinics during the week. The expense is prorated and ranges from \$10 to \$25 per student. Ohio has also developed a series of clinic days in the larger hospitals and lectures on topics of interest are offered throughout the year.

THE NORTH CAROLINA PLAN

North Carolina has carried on postgraduate instruction to physicians for several years. The work consists solely of combined lectures and clinics during the summer months. Lecture circuits are planned to save time and expense of travel. Usually there are 6 towns or centers on one circuit in which the instructor will give a lecture and a demonstration on a certain day each week throughout the 12 weeks of the course. The work is supported by enrollment fees of \$25 to \$30.

THE MINNESOTA PLAN

The Minnesota State Medical Society, the Medical School of the University of Minnesota, and the General Extension Division of the University give postgraduate medical instruction. There are 2 types of work:

(1) Intensive courses of from 3 days to 2 weeks at the university.

(2) Through coöperation with county medical societies, short courses in communities throughout the state.

The physicians who enroll for the courses bear all the travel and incidental expenses.

THE COLORADO PLAN

The Colorado State Medical Society offered extension courses in 1924. Four-day intensive clinic days are held and the expenses are borne jointly by the University Extension Division and the University Medical School.

THE OREGON PLAN

Five-day institutes are held at the University through coöperation of the Child Health Demonstration, the State Board of Health and the University Medical School.

THE TENNESSEE PLAN

The Commonwealth Fund and Vanderbilt University have courses of twelve weeks. The physicians pay one-half of the expense and the Fund the other half.

THE VIRGINIA PLAN

Virginia began postgraduate work in 1929 and it is functioning very well in this state. The Medical Society, the State Board of Health, and the Medical College agreed upon a plan and engaged a full-time clinician's services. Under the terms of his employment the work is all instruction and he sees no patient except upon the recommendation of a physician. Every medical society in the State of Virginia to which this course has been offered has approved of it, and the endorsement has been unanimous in every case except one. In a year and 5 months, 32 classes have been organized with an enrollment of more than 400 physicians and nearly 200 others in attendance as visitors. The rate of attendance of enrolled members has been over 75 per cent. The work has been largely confined to prenatal and postnatal instruction and has been so successful and the members of the groups so insistent for similar opportunities in other subjects that the Medical Society of Virginia is even in these times pressing forward to arrange for another intensive program in pediatrics. The

cost to the members of the study group is \$5 each. The total collection of fees represents only about one-eighth the cost of the courses which have been subsidized by a grant from the Commonwealth Fund and an appropriation of \$2500 from the Medical Society of the State of Virginia. The entire cost of the plan is from \$6500 to \$7000.

IOWA

Although no definite plan of postgraduate instruction has developed in Iowa, Walter L. Biering, of Des Moines, president-elect of the American Medical Association, reports favorable consideration of the Michigan plan which he feels will lead to definite action at the next meeting of the State Medical Society.

PENNSYLVANIA

The most highly organized and thorough extension courses were those begun in 1922 by The Medical Society of the State of Pennsylvania in coöperation with the county medical societies and the Graduate School of the University of Pennsylvania. The work continued for 2 years totaling 250 hours of instruction. This work was given in only a few counties because it proved expensive and funds were limited.

In 1925 there was inaugurated in this city the Philadelphia nongroup extension program of postgraduate teaching which has continued annually with one exception. This plan has consisted of four systematic courses covering different subjects, five lectures in each. These seminars have been sponsored by the Philadelphia County Medical Society and directed by the society's Committee on Education, without cost to the members of the county society; other members of the State Society are welcome. The seminars are conducted from November to April, on Friday afternoons from 4 to 5 p. m. and have been very popular and well attended. At the end of the seminar season, an attractive intensive 3-day course is conducted, for which no charge is made. The course this year was devoted to cancer control; the one last year to physical therapy.

Postgraduate teaching has been carried on in Pittsburgh since 1928 by the Committee on Graduate Education of the Allegheny County Medical Society. The courses are planned to consider only those subjects of interest to the general practitioner and the registration fee is \$5. Dr. Wilton H. Robinson, secretary of the Committee, reports that this activity has been successful. All except 2 or 3 courses were filled and a few were oversubscribed.

The Postgraduate School of the University of

Pennsylvania carries out excellent postgraduate work offering a course of 3 years' intensive study in the specialties.

The following states have engaged in postgraduate teaching for one or more years but have discontinued the work: Missouri, West Virginia, and Oklahoma.

It will be seen from the foregoing that plans for postgraduate teaching have been well established by many of our largest state medical societies; it will also be noted that this type of teaching is being seriously considered and will unquestionably be adopted by other states. Has the time not arrived for our own State Medical Society to seriously consider plans for this type of instruction for the general practitioners of medicine who live away from our teaching centers?

The busy general practitioner cannot afford the time or the expense of a flare in postgraduate instruction given in the medical centers. I know several ambitious physicians who have attempted it from time to time and they all report that the expenditure was largely out of proportion to the benefit obtained. There are many overworked, underpaid, progressive general practitioners who would eagerly avail themselves of the opportunity of postgraduate study, but it is impossible for them to satisfy their ambitions. Why cannot we find means to bring the university out to the smaller places, to carry continuous and systematic instruction to the very doorstep of the general practitioners, to move the mountain to Mohammed if you will, and give to these deserving men the instruction which they crave? A plan such as this would develop our hospitals in the smaller centers and make them real centers of postgraduate instruction. And what better service could be performed than to encourage medical teaching to the doctor who can ill afford to leave his practice and go to a center? Millions of dollars are given yearly by generous philanthropists and foundations to educate the undergraduate in medicine, but little, I am sorry to say, has been given to help the doctor already on the firing line.

It shall be one of my major efforts, during my term of office, to create a widespread interest in this type of education throughout the State, to endeavor to have the general practitioners of the State realize the need and value of this work, and do my best to have them express a desire for a plan, which would be sponsored by the State Medical Society, acting through the component county medical societies, in cooperation with the teaching institutions of the State and the Department of Health. At the present time, I am very sanguine that this can be accomplished

and I shall bend every effort to bring it about for I know of no better way to help the general practitioners of this State.

SPECIALISM

Specialism as we know it today will surely fail, and as the army of poorly trained, inexperienced young specialists dwindles, the well-trained, alert, well-informed general practitioner will fill the gap, a group made up of men who can correctly diagnose and successfully treat 80 to 85 per cent of human ills without the help of the specialist or the modern instruments of the laboratory.

It is interesting to note how the attitude of the recent graduate of medicine has changed within the past 3 years. Before the depression, practically the entire intern group each year was eager to take out fellowships in clinics or pursue other forms of postgraduate study; today, but one may show any interest in the specialties, while the rest of the group desire to enter general practice immediately at the end of their service. The success of many of these young men has been most gratifying.

The best means of having a redistribution of physicians and of preventing the present overcrowding in the cities will be to have the teachers in our medical schools emphasize the specialties less and to stress more emphatically the advantages of general practice in the small towns and rural communities. Good roads, easy means of transportation, and the proximity to good hospitals have changed the whole type and complexion of the rural practice of medicine.

It is well to have our young men go into general practice and help fill the fast depleting ranks of those most essential and much-needed physicians whose field of usefulness is becoming wider instead of contracting. As to the work of the doctor in the small town or the country, I should like to say a word—for I know it well. Here a useful, healthy life awaits any young doctor who is not afraid of hard work; it is a life of independence, filled with satisfaction which comes from the appreciation, the understanding, and loyalty which these splendid people have for their doctor. I am safe, I believe, in saying that the majority of our present day giants—business and professional men—were country boys before they came to the cities and the relatives of these big men of today still live in many of our small towns and in our rural districts and are the backbone of the nation. Should they not have the best medical protection it is possible to give them?

We are told by lay reformers that our code of ethics is out of date—that it is shopworn and no

longer practical—that it cannot possibly fit into the scheme of modern life. We should resent this suggestion strenuously for it is upon this very code of ethics all that is fine and noble, all that is splendid and admirable in our profession has been founded and from which the practice of modern medicine has developed. Would not it be a fitting thing—here at this moment—in this city, which is the cradle of American medicine, solemnly to reaffirm our faith in that code which is a precious inspiration to every true physician? If medicine is to be robbed of its art—if physicians are to become mere automata, working under the direction of the State or of combined interests composed of self-appointed guardians of the public health, we will have a trade instead of a calling and medical progress will forever cease, much to the detriment of mankind.

Let us be old-fashioned enough to adhere to our code and our ideals, and militant enough to resent and oppose suggestions by lay organizations for radical changes in this business of taking care of the public's health. The care of the sick man is a sacred mission rather well performed by the medical profession for many many years and it is from this traditional experience and not from the belief that we are a superior group that we ask the public to allow the responsibility of safeguarding the nation's health to remain upon our shoulders where it belongs.

We plead for the preservation of individualism in medicine, but this individualism must submerge itself for the common good. Medical ethics have been conserved, nurtured and furthered only because they have provided the best obtainable service for the patient. No economic situation, however trying, would justify an inflexible attitude towards the progressive trends in medical practice. We must strive to promote a high plane of excellence in our individual efforts with the end in view of doing what is best for humanity but, at the same time, let us insist upon the medical point of view as essential in shaping the practical application of humane service to social trends and let us remember that our material rights are inseparably bound to ideals which are of a higher order than those of some of our critics.

As a result of changes in modes of living, acting and thinking in this mechanical age, with codes being applied to industry, banking, commerce, and labor—the outcome of which will bring about changes the importance of which it is difficult to recognize at the present time—it may be necessary for the medical profession to modify some of the present-day methods of safe-

guarding the public's health and caring for the sick. Should such changes prove inevitable we should formulate a plan which, after much analysis, careful consideration and discussion, will render the best medical service and protection to suit the changing conditions, and then let us present it to the public as ours with no embarrassments and with no apologies.

The solution of many of these vexing problems which face the profession will be decided by public opinion—for, in the last analysis the layman will have the voice and the vote. It is our responsibility by education of the public to have it correctly informed upon health matters and to understand our ambitions for its protection. The public should appreciate what medical service and protection really mean. Haggard says, "The public thinks of medicine as limited to the doctor, the hospital, and the dispensary, where in reality medicine includes as well all precautions that make the city of today the healthiest place that has ever been known. It includes such matters as food inspection, sewerage disposal, water purification, health supervision, quarantine, and all measures directed toward controlling and preventing disease. The public should understand that urban civilization as we know it depends upon the work of the medical profession. Present-day civilization is only made possible by medical knowledge. This very city is able to exist only because of the influence of modern medicine. Remove from any city the support provided by medicine and demoralization would follow."

Education of the public upon a reappreciation of values, also, is very essential. The public's health, its protection, its safety, its very well-being depend upon medical service and these matters should at least assume the same importance in the public's mind as its home, its car, its radio, its tobacco and candy, its amusement, and its personal adornment.

Never before has there been more need for a wise and dignified leadership in our profession, a leadership assumed by the individual doctor in his local community in which invariably he holds a position of respect and is an important factor in moulding public thought; never before may the county society under the proper leadership serve as a better influence for good through its Public Relations Committee. Let me plead for a solidarity of medical thought and action for, in spite of the fact that each county society may have its own different problems and difficulties and may be forced to think and act differently on the same problems, the need for a unified and a united profession was never so important as it is today. If medical organization will assume

this type of leadership, we shall not be considered by the public as a bureaucracy seeking only for those things of selfish interest. Far better should we be evolutionists rather than revolutionists, for revolution will simply antagonize public opinion and make us appear in a wrong and an unfortunate light. We should remember, as Dean Lewis says, that "organization is not a synonym of efficiency; neither is change a synonym of progress."

One writing of this thrilling time through which we are passing—really another renaissance

—is bound to record that the medical profession assumed its responsibility willingly, accepted its challenge of duty nobly, and performed its labors magnificently.

To give what none can measure, none can weigh
Simply to go where Duty points the way.
Faith, Honor, Duty—Duty calmly done,
Which shouts no self-praise o'er a victory won;
One bugle note our battle call,
One single watchword, Duty—that is all.

Robert Packer Hospital.

CORONER OR MEDICAL EXAMINER?

J. EVANS SCHEEHLE, M.D.,* LANERCH, PA.

The office of coroner, one of the oldest and most important of all judicial offices, dates backward to the dim hoary past. It is rich in traditions, and seems to have been a part of nearly all nations and peoples, being mentioned in the folklore and history of practically every nationality except that of India, known by various names, but descriptions of its powers and functions being so clear that the office is very easily identified.

Our most authentic historians date the existence of this office in England particularly as of A. D. 925, where the charter of King Athelstan issued to the monastery of St. John of Beverly clearly and accurately describes such an officer and outlines his powers and duties. English history is replete with the story of the coroner, or as he was then known, the crowner or the coronator. Certain historians lead us to the belief that his office antedated that of the sheriff. Certain it is, however, that both offices correlate and go hand in hand through the pages of history.

An editorial published in the PENNSYLVANIA MEDICAL JOURNAL, February, 1933, includes a satirical article in the form of an editorial which appeared in a recent issue of the *Philadelphia Public Ledger*. This article, in the face of lack of definite statistics and of more definite facts, is a libel and a calumny on a very ancient and useful office, and which, like all our present system of laws, is based upon early English law.

The powers and privileges of this office have been materially changed by acts of legislature to fit existing conditions. This is true not only of the coroner's office, but is also true of the various professions including medicine and law. It

is still within the memory of present-day doctors, some of the antique methods and agents formerly used in the treatment of disease that would not be tolerated or considered by the modern school of medicine, and yet we would not for an instant consider the thought or notion of discarding medicine or surgery because of its past history of omission and commission, and the mistakes and fallacies of the ancient doctor.

It is also true that our own profession has been and is, even in these modern times, lacking considerably in its management of and adaptation to the modern problems which beset us. We have originated hospitals, clinics of various types, welfare agencies and so forth, until they have grown more and more powerful and, like Frankenstein, bid fair to overcome their creators, and make us their slaves, ultimately destroying us as a free and independent profession.

We have somehow lost the reverence, the respect, the sacredness, and the distinction that marked the doctor of old, with his gold-headed cane and his unruffled dignity, and have joined the mad stream of commercialism. Ethics, our religion, has been replaced by the fetish of modernism.

The coroner's function, as outlined below, is to investigate sudden deaths, suspicious or unnatural, to determine if possible the cause of death, placing the responsibility and protecting the innocent from wrongful accusation.

A coroner, when holding an inquest, is, in the fullest sense, a judicial officer. His finding is in effect equivalent to a Grand Jury indictment, but parallel proceedings are always taken under the statutes governing the office in Pennsylvania. The coroner must of necessity be versed in the common law of Pennsylvania, particularly in its

* Coroner of Delaware County, Pennsylvania.

relation to the various phases of crime which come under his jurisdiction. He need not necessarily be a physician, but should have the benefit of experienced medical men to assist him in the determining of the actual cause of death. If the scope of the office were limited to that phase, the position of medical examiner would indeed supplant and render useless the office of coroner.

Owing to the classification of our counties, and consequent variations in the codes governing these different classes, the office of coroner is not uniformly administered. Conditions in third class counties, with much greater populations, naturally require different methods of procedure from those which occur in fourth, fifth, or sixth class counties, and decidedly different conditions obtain from those in first class counties, which include large cities such as Philadelphia and Pittsburgh.

The question of necropsies has been taken up by the writer of the editorial mentioned above. He has evidently been imbued with the continental idea, since it is well-known that in many foreign countries necropsies are the rule rather than the exception.

The editorial also brings out the fact or the statement that hospitals have been refused the right on many occasions to perform necropsies, even though done gratis by their pathologist.

Science is one thing; science must progress—but science cannot and must not override the rights of individuals as free men and women. We must remember that this is America and not Russia or Germany—that science must not be dictator.

The Act of Assembly, April 16, 1907, P. L. 92, No. 78, states:

It shall be the duty of the Coroner and the Deputy Coroner of any county of the Commonwealth, where the cause of death is of a suspicious nature and character, to cause an investigation of the facts concerning said death, and to make or cause to be made an autopsy, as the facts of the case may demand by such official.

Following the logic of this ruling, the coroner has not the unlimited right to cause a necropsy to be made in every case coming under his jurisdiction. In cases in which the cause of death can be determined by medical science, and clinical and laboratory findings are correlated, it could be and would be considered by the courts as a misdemeanor, and the coroner would be liable for civil action if such necropsy could be proved unnecessary.

The expense of performing necropsies in every individual case would be prohibitive. The prices paid for necropsies by the county codes differ with various counties, and range from \$20 to \$150 for the individual case.

In the writer's county, which is a third class county, this would make the cost prohibitive. The disadvantage of accepting the free services of hospital pathologists are many. Among them are the annoyance of court attendance, with its many delays and postponings, and the often irritating cross-examinations of opposing counsel, the necessity of absolute impartiality and specificity in the rendering of reports and the necessity for the absolute exclusion of any but the coroner's staff or district attorney's staff in criminal cases.

The writer of the editorial further states that the coroner will try to force the doctor or the hospital to issue the death certificate. Such a statement is contrary to fact. The law does not allow the doctor or the hospital to sign a death certificate in cases coming under the classification of coroner's cases. What the coroner does is to ascertain the name of the last physician in attendance, and by means of a history obtained from him and the physician's opinion as to the cause of death to formulate a cause of death. Such opinion is made and accepted only after a careful examination of all the facts in the case and a thorough examination of the body of the deceased.

The death certificate is always signed by the coroner or his deputy. In those cases in which the doctor or hospital are not willing or cannot give an opinion based on previous treatment of the deceased, there must of necessity be a necropsy. In the particular county over which the writer has jurisdiction, during the year 1930-31, there were 492 cases investigated. Of these, 203 were necropsied. The year ending 1932, there were 430 cases investigated and 92 were necropsied. Surely that percentage will compare favorably with the records of any hospital or medical group engaged in the investigation of deaths not coming under the classification of coroner's cases.

Those cases which indicate by history or necropsy that death may have occurred as the result of poisons of various types, are thoroughly examined by an expert in the science of toxicology, who is paid for each individual case. Inasmuch as these cases are relatively few, the expense of maintaining a man on salary would be prohibitive.

The question of politics has been introduced into the article mentioned. It is true that the coroner's is an elective office. Would the appointment of a medical examiner eliminate politics as a factor? Would the citizen whose case was to be decided upon be in a better position with a man aligned with the prosecutive de-

partment working with and for and by the direction of such officers give an absolutely fair and impartial finding? Or would he not be inclined to lean toward the prosecutive side of the case?

The coroner, being an officer unto himself, decides the case entirely on the result of his investigation, and if the facts warrant it, by a public inquest before a jury called by and under due process of law.

The jury system has proved to be satisfactory, and while undoubtedly mistakes have been made and in some cases the innocent are held for court, yet the prisoner still has the Grand Jury inquiry, and following that, the courts, to try the case, and it must be conceded that the great majority of convictions are just and proper.

While undoubtedly many escape punishment through the maze of legal technicalities, often aided by the so-called medical expert testimony, yet that would not be a reasonable excuse to discard the law as an agent to govern society.

Inasmuch as a large percentage of the coroners in Pennsylvania are doctors of medicine, and the percentage is growing larger with every

election, is it not unwise still further to socialize medicine by advocating the appointment of medical examiners, and they must be appointed, and appointments mean pull, pressure, and political subservience.

The selection of a medical examiner by election is inconceivable. The election of a coroner does at least give the citizens a chance to make their own selection, as far as it is possible under the present system of party government.

Elevate the office by getting back of the right kind of candidates. Revise, classify, and codify the rules of the office so that a uniform procedure may be carried out over the entire Commonwealth, but do not consign to oblivion an ancient, useful, and honorable office simply because abuses may have crept into some specific coroner's jurisdiction.

The office is man-conceived and man-powered. It must, therefore, of necessity, have human defects. Is not this true of all public offices, and is our own profession without faults both ethical and medical?

323 Davis Road.

SALYRGAN AS A DIURETIC

Report of a Case

ORA F. MCKITTRICK, M.D., LINGLESTOWN, PA.

C. S., a white male, age 72, retired and a widower, first came under my observation, June 10, 1931, for abdominal distention. He descended from a large long-lived family, free from hereditary disease. Father of 14 healthy children; there was no history which indicated syphilis. He was never sick except with chills and fever, for 7 weeks, at age 12. Since age 18, he used spirituous liquors to excess continuing on through his present illness, though to a lesser degree. For 12 successive years he was a saloon keeper; then for 26 years, worked in the steel mills until his retirement, May, 1928.

Since retirement, his waistline gradually increased in size, and for 5 months immediately preceding the time that I first saw him, he had considerable abdominal distress. His weight remained around 200 pounds. With the feeling of tenseness in his abdomen, he was constipated, at times dizzy, slept poorly, was weak, easily exhausted, and dyspneic. The urinary excretion was never more than 100 c. c. to 450 c. c. in 24 hours. His heart constantly bothered him, "always jumping," and he had begun to have precordial pain, which often was severe.

He appeared well developed with no abnormalities except the intense abdominal distention. He was pale, with unmistakable hepatic facies. There was an icteroid tinge to the sclera and an albuminuric retinitis. All his remaining teeth had been removed some years ago for pyogenic infection. Huchard's sign was positive, showing the aortic arch was pushed up. The heart was enlarged downward and to the left, revealing a typical aortic configuration or duck heart with an hypertro-

phied and dilated left ventricle; the dullness at the apex extended 17 cm. to the left and 5 cm. to the right of the midsternal line. There was definite aortitis with marked sclerosis of the radial and brachial arteries and undoubtedly of his coronary arteries. The abdomen was very large, tensely distended with fluid, uniformly ovoid in shape, and the circumference was 55 inches. The walls were thin and shiny with protruding umbilicus and prominent veins of Sahli marking the position of the diaphragm. After the fluid was removed, the liver was found to be small, the edges rounded and somewhat roughened, but not nodular, very firm and extended fully 2 cm. above the costal margin in the midclavicular line. There was chronic infection of the prostate.

The blood pressure was 250 systolic and 130 diastolic. The urine was loaded with albumin with few coarsely granular, and many hyaline casts. Blood examination showed both red and white cells normal in number, but there were many poikilocytes. Polymorphonuclear neutrophilic leukocytes were 34 per cent; eosinophilic leukocytes, 8 per cent; large mononuclear lymphocytes, 6 per cent; and small lymphocytes, 52 per cent; hemoglobin, 52 per cent; a picture suggestive of long standing chronic infection. Blood Wassermann test was negative.

The response to the usual care accorded this condition was not encouraging. The extensive ascites remained. Urinary excretion increased to an average of 500 c. c. daily.

He was admitted to the Harrisburg Hospital, Aug. 24,

1931. Bed rest, dry nephritic diet, and restriction of fluids were enjoined. On the fourth hospital day he was given salyrgan, 1 c.c., intravenously. Two hours after the injection diuresis began, continued for 2 days, 1200 c.c. of urine being passed each day. Then the excretion dropped to around 600 c.c. and on the eighth hospital day, salyrgan was repeated. This time there was no change in the urinary excretion, probably because of the marked tenseness of the abdomen. On the twelfth hospital day, 32 quarts of ascitic fluid were removed by paracentesis. He left the hospital, Sept. 25, 1931; but returned one month later. The tapping was repeated Oct. 24, 1931, when 30 more quarts were obtained. Ammonium chloride was now given by mouth; 15 grains every 3 hours. Four days later 1 c.c., intravenous salyrgan produced a diuresis of 1710 c.c., 720 c.c., and 300 c.c., the first, second, and third days, respectively. On Nov. 1, 1931, 990 c.c. of urine were excreted following salyrgan, and 1260 c.c. more the next 24 hours. On Nov. 3, 1931, another intravenous salyrgan caused 1080 c.c. urine to be passed. Then the amount dropped irregularly to as low as 240 c.c. daily. On Nov. 12, 1931, there were removed 17 quarts of ascitic fluid. The following 24 hours, the kidneys excreted but 90 c.c. On Nov. 14, 1931, injections into the gluteal muscles of 1 c.c. salyrgan were begun and were continued until the patient's discharge from the hospital, July 1, 1932.

During this time 113 injections were given within 226 successive days; no infections nor other ill effects resulted; neither were there any symptoms of mercury poisoning. The urine cleared up and remained so. Diuresis increased to 3000 c.c. during the first day and 1000 c.c. the second day usually. The patient's waistline reduced to 42 inches and the abdomen became soft. There was some reduction in his weight, however, which was now around 185 pounds. His previous symptoms had disappeared and he felt well, although the abdominal fluid never completely disappeared. The blood picture remained about the same. The ammonium chloride was tolerated best in 10 grain doses. Only about half the time was he able to take 15 grains every 3 hours. The daily excretion of urine was increased with this drug 250 c.c. to 500 c.c. if taken in conjunction with the salyrgan injections. The blood pressure dropped to 120 systolic, 70 diastolic, and remained so during his stay in the hospital.

On his return home, he received 1 c.c. salyrgan intravenously every third day as before. The urinary excretion fell almost immediately to 1000 c.c. and 500 c.c., the first and second day, respectively. On July 23, 1932, salyrgan, 2 c.c., were given and 3 days later were repeated. The urinary output exactly doubled following each injection. On July 29, 1932, only 1 c.c. was given, but the urinary excretion remained at its new level. Since this date, the interval has been increased to every fourth or fifth day; only 1 c.c. salyrgan being given, however, but the output continues around 2 quarts the first day and 1 quart daily the remainder of the time, between injections. Ammonium chloride administration is maintained. Digitalis, little used before, has been almost discontinued during the last 9 months. The patient continues to feel well, has a splendid appetite, weighs now 190 pounds, and his abdominal circumference is 42 inches. The abdomen remains soft despite the presence of some ascitic fluid. A little whisky occasionally completes the picture of comfort and contentment, thanks to modern medication.

The use of mercury as a diuretic is recorded in the fifteenth century by Paracelsus. No further mention is made of it in this capacity until the latter half of the eighteenth century, when it was said to have been discontinued until Jendrassik, in 1886, introduced calomel for cardiac edema. Since then various mercurial preparations have been employed as diuretics. Of later years, however, more complex mercuric salts have come into use, and in 1917 Karl Zeiler noted the diuretic properties of novasurol (merbaphen) in the treatment of syphilis. In 1920, Saxl reported his observation that edema decreased in cases of syphilitic aortic regurgitation following its use. Later it was found to have just as beneficial effect on nonsyphilitic affections. Since then, the German literature especially, has abounded in the reports of the effects of this drug. Its diuretic action proved astounding, but 20 to 30 per cent of the cases showed a greater or lesser degree of mercury poisoning. Salyrgan, discovered by Meister, in 1923, was found to be less toxic and equally as good a diuretic. Novasurol has been practically supplanted by salyrgan; and for years has been used extensively in the clinics in Europe. Very little has been written of this most potent and comparatively harmless drug, and it is therefore not nearly so widely known nor used in this country.

Salyrgan-mersalyl, sodium $\{o$ (hydroxymercurimethoxy-propylcarbonyl) phenoxy $\}$ acetate, is a synthetic mercurial, supplied in 1 and 2 c.c. ampules containing a 10 per cent sterile solution only. Dosage $\frac{1}{2}$ to 2 c.c. intramuscularly or intravenously. Repeat usually at 3 to 5 day intervals. It is advisable not to give more than $\frac{1}{2}$ c.c. until the tolerance of the patient is known, as susceptibility to this drug must be borne in mind.

The exact mechanism of diuresis induced by salyrgan is not fully understood. From the studies made, its action is upon the edematous tissues as well as upon the kidneys. In the former, the fluid and salts are freed from their colloidal state in the swollen tissue cells. The latter action is thought to be due to stimulation of its own vascular apparatus, with increase in intraglomerular pressure, or its effect on the vascular structures throughout the body through the vasomotor nerves.

It is indicated in edema associated with cardiac disease, cirrhosis of the liver, Banti's disease, polycythemia, chronic nephrosis, ascites of inflammation or of malignant origin. It is not particularly encouraging in pericardial effusion, ascites of tuberculous peritonitis, or hydro-

thorax. In selected cases, salyrgan may be used in children with the same prompt results as in adults.

Inasmuch as salyrgan induces diuresis only when sufficient renal tissue is intact, it is contraindicated in acute nephritis, with casts or blood in the urine; or in the more chronic forms of nephritis with nitrogen retention in the blood, or in severe diarrhea. It is not to be condoned in intestinal hemorrhage, severe anemia, or cachexia. The existence of albuminuria alone and in many instances even casts need not preclude its use.

The efficacy of salyrgan as a diuretic was first recorded by Bernheim, in 1924, who reported 1000 injections of this drug without any untoward effects. In the same year Brunn noted 75 injections, and later Herszky secured equally good results, neither observing any toxic symptoms from its use. Agnew recorded 18 cases, one presenting portal cirrhosis, another chronic parenchymatous nephritis, the remainder, cardiac edema, with uniformly good results, the urinary output frequently reaching 4 to 5 liters in 24 hours. In the series of 5 cases reported by Bannick and Keith, as much as 10 liters were obtained in 24 hours, but they believe such large amounts indicate that the patient has not had sufficient rest. In extensive edema, however, such may be the means of saving life; and they found that salyrgan diuresis controlled periodic attacks of nocturnal dyspnea, in a patient with decompensated heart disease who was not relieved by digitalis and sedatives. Barker and O'Hare observed 30 cardiac cases in which diuresis failed only in 4, because of lack of complete digitalization. In one of these cases, the initial dose of salyrgan was given before they discovered that the patient excreted no phenol-sulphonphthalein and had a blood urea nitrogen of 98. No ill effects followed, despite the marked renal insufficiency. Sprague and Graybiel reported 60 cases of which 46 were cardiac disease with congestive failure, 8 cirrhosis of the liver, 4 cancer, one each of nephrosis and ovarian cyst. Although one-third of the patients were in the last stages of chronic disease, 80 per cent showed diuresis following salyrgan. Bedford observed the action of salyrgan in 27 cases, 20 of which were affections of the heart, and 7 hypertension. Diuresis failed in 3 only, but these were moribund. He states that the dehydration by salyrgan even in the absence of edema is beneficial. In hundreds of injections no toxic symptoms developed; in Grossman's remarkable experience with nearly 10,000 injections the same could be said.

Although a mercurial preparation, but few instances of poisoning or serious complication have been mentioned in literature, following the use of salyrgan properly administered as a diuretic. Recently, however, Wolf and Bongiorno reported sudden death in an Italian boy aged 4, following his sixth injection within one month. The authors believed his death was an anaphylactoid one. Andrews noted severe toxic symptoms in a woman age 22 with cardiac edema following an initial injection of only 0.5 c.c. salyrgan. He blamed the patient's marked degree of susceptibility to the drug. In 8 other cases there were no signs of poisoning. Morian recorded one instance of embolic thrombosis of the superficial tissues of the hand in a man age 26, following injection of salyrgan into a vein at the wrist, which necessitated amputation of the hand at the wrist joint 6 weeks later. Sprague and Graybiel reported cellulitis of the arm and phlebitis of the vein into which the injection was made, in a patient who died 5 days later from rheumatic heart disease. Necropsy revealed thrombosis of the left subclavian vein. In 2 other cases red blood cells appeared in the urine; in another, granular and cellular casts. One developed mercurial dermatitis, and one diarrhea. Wiseman noted an intractable sciatic neuritis in 2 patients following injections of 3 c.c. to 4 c.c. of salyrgan into the gluteal muscles. Faulty injections into the muscles caused wrist drop in 1 case and foot drop in 2 others recalled by Tarr and Jacobson. Sclerosis of the vein after repeated injections of salyrgan and temporary local tenderness at the site of intramuscular injections are common and are to be expected following varying technic.

Though salyrgan acts well enough alone, most of the observers have found it expedient to use, from time to time in conjunction with it, some acid-producing salt as ammonium chloride, ammonium nitrate, or ammonium sulphate, calcium chloride, or calcium nitrate. Magnesium sulphate has been suggested, the latter given if necessary after the method of Shelling and Tarr. Ammonium chloride as recommended by Jacobs and Keith, proved most popular, however, and was given by mouth in 10 to 15 grain doses as tolerated, usually 45 to 90 grains, although 150 grains is not considered too much at the Mayo clinic. The acid salt was more effective, started 3 to 4 days before the salyrgan injection, and urinary excretion usually increased, at times to 500 per cent. This was true particularly in those patients who responded poorly to salyrgan or in the long drawn out cases.

Of the prolonged use of salyrgan as a diuretic, little indeed has been written. Agnew cites a case of portal cirrhosis with marked ascites in a man in his forties who was tapped 2 to 3 times a month until salyrgan was begun and received 110 injections, totaling 204 c.c. over a period of 9 months. Two c.c. salyrgan given every other day kept the abdomen soft and the weight constant, and permitted him to continue business as a merchant. Wylie treated a man, aged 66, for cardiac edema over a period of 13 months, during which time 47 injections were given; 1 c.c. of the drug increased the urinary output from 300 c.c. to 500 c.c. daily, to 1250 c.c. The dosage was gradually increased to 2.5 c.c.; and the interval to 2 weeks, before his death from pulmonary embolism. In Morian's case, over 80 intramuscular injections had been given before the accident mentioned above, and the same continued after the amputation of the hand until his death 1½ months later from cardiac failure. Wiseman records 270 injections (mostly salyrgan) in an obese woman, aged 58, suffering from decompensated cardiovascular disease with hypertension, over a period of 5 years until her

death. The average diuretic response was 4 to 6 quarts, the largest amount being 9 quarts in 24 hours. She received 2 c.c. at 5 to 7 day intervals fairly regularly for 5 years. The diuretic response was maintained throughout, and no evidence of poisoning was noted. Olshausen cites an instance of chronic ascites in a patient with cardiac insufficiency in which salyrgan was given 380 times, each injection being about 2 c.c.; the patient continuing to enjoy fair health.

In the case reported, 160 injections of salyrgan, aggregating 146 c.c., were given over a period of 15 months; 113 of them were received into the gluteal muscles in 226 successive days without any untoward symptoms. Kidney response was maintained throughout; the action beginning within 2 hours and lasting 2 to 5 days. In this case the maximum diuresis was 3000 c.c., although in another case now under observation, 7 to 9 quarts are usual but as much as 15 quarts are sometimes passed in 24 hours. The marvelous results obtained by this drug can be continued over long periods of time and its extensive use is warranted in these otherwise hopeless cases.

WORK OF THE HEALTH CAR IN WESTMORELAND COUNTY IN 1932*

SONIA CHEIFETZ, M.D., GREENSBURG, PA.

Permit me to take this opportunity to thank the officers of this Society for their coöperation which was largely instrumental in bringing the Health Car to Westmoreland County this past summer, and also for the interest shown in the work which was expressed by the wish to hear an account of what was done.

It is probably known to you that the Health Car work is carried on by the State Department of Health through the Preschool Division. Motor units for this work with very young children have been sent out each summer since 1925.

The undertaking is primarily educational in character. It is not only that an opportunity is given by the Health Car in this way for a complete physical examination of the children in the most rural communities, but what is almost equally important is the benefit the child may ultimately derive from the personal contact of the parent with the examining physician. No medical treatment or advice is given, but pressure is brought to bear to help the parents understand the necessity for correction of defects

found and of having children protected against diphtheria and smallpox.

Many of you came out to see us when we were working in your communities but for the benefit of those who could not take the time to do so I should like to describe the motor unit.

The Car itself serves for transportation of the staff and equipment but we do not do the examining in the car, as some have supposed. The staff consists of 3 doctors, 3 nurses, 2 dental hygienists and the driver of the car. We usually work in school buildings, and although we are housed occasionally in a 2 or 3-roomed school, we much prefer to have 6 or 7 rooms, as it avoids confusion and facilitates the work. Crowded quarters do not usually add to the comfort of any work and we were fortunate in having crowds throughout Westmoreland County. We averaged about 100 examinations a day.

It is a strict rule that every child must be accompanied by a parent; frequently both parents come. The reason for having the parent present is because these conferences are educational for the parent, with the child as a text. Moreover, the children are completely undressed for their

* Read at the meeting of the Westmoreland County Medical Society, December 13, 1932.

examination. Those of you who are doing school medical inspection are familiar with the yellow school card, Form 92, and know that the lungs are not even mentioned on the card. Since sufficient information about the chest can not be obtained unless the child is undressed, and since the undressing is not permitted by the school law except in the presence of the parents, the lungs of the school child, a most important part of the physical examination, are simply ignored. On the Health Car we require the presence of the parents which permits a complete physical examination.

To give a brief outline of our routine: The conferences last from 9 to 5 each day. In the morning as the families arrive they are given numbers and are taken care of in their proper order. After registration the histories are taken, the clerical work being done by one of our nurses, assisted by one of the local committee. Each town and village is well organized for the visit of the Health Car motor unit. A local committee plans how to notify and secure the attendance of parents with their children. They arrange for the proper equipment of the school house in which the conferences are to be conducted and arrange also for the transportation of families from distant points. We have had very efficient local committees in every place we worked.

The age-limit of the children is from birth to 6 years with the exception of children referred by the Mothers' Assistance Fund, which were isolated cases.

Only supposedly healthy children are eligible for examination. The following routine is observed:

After the history is taken the undressed child is weighed and measured. A paper bag is given to the mother for the child's clothes and a toga to wrap around the child. If anything about the child causes the nurse to suspect that the child is not well, the temperature is taken and a doctor's attention called to it. If the physical condition of the child makes him ineligible for examination, it is explained to the parents and they are advised to see their family physician at once. We had several acutely ill children who had to be sent out through the back door.

After being weighed every child age 4 or older, is directed to the room in which the vision tests are done. One of the staff physicians this year, with special training in this branch, had a very ingenious way that enabled her to elicit reliable information about visual acuity. In this way 29 cases of markedly impaired vision were discovered. There were several severe cases of nystagmus, 2 being of the rotatory type.

Vision-testing can rarely be done on a child under age 4. For these children, the doctor making the physical examination would merely do the external examining of the eye as to muscle imbalance, *etc.*

The younger group of children, that is, under age 4, after being weighed and measured, are directed to one of the doctors for the physical examination. At this time the physician has the opportunity of talking with the parent and frequently the physician considered this contact important enough to spend on it the greater part of the time of the visit.

Our aim in this work is not only to discover defects early, while they are in a state of easy repair, but we are telling how to improve the general condition of the children, and better still how to prevent diseases through better home hygiene.

Tendencies of early childhood toward simple problems of everyday life, such as eating and sleeping, will naturally influence the child's physical development, but they will do more than that, they will also formulate the child's ideas in life. Tendencies will gradually become habits, and later enter into the making up of what we call personality.

Often a mother would walk into my room leading the child by hand, and saying, "Don't be afraid, the lady won't hurt you," but her assurance would only make the child more apprehensive. Trying to comfort him she would say, "Now come to the lady, she will give you some candy," knowing only too well that I had no candy to give him.

To me this was a very important issue. To build good health habits in a child you must have a child's confidence. One could hardly expect to improve health habits in a home in which the parents did not inspire and consequently did not enjoy the confidence of the child. The first step in our work is directed to winning over the parents to this idea.

A great number of the children were found to be underweight and many malnourished, some through lack of food, but a considerable proportion because of faulty diet and faulty eating habits. Capricious appetites encouraged and sustained by eating between meals, refusing and fussing over meals, thus converting the meal into a convenient source of attention, instead of a source of energy for body building, account for the under-par condition of many children of preschool age.

One of the many faulty matters of mismanagement in the home relates to sleeping habits and rest. Many of the children would not get to bed before 10 or 11 o'clock, and when an at-

tempt was made to tell the mother the harm of it, she would interrupt to say that the child makes up for it by sleeping until 10 or 11 in the morning. She was unaware that she was trying to overcome one evil by a greater one. The child was missing 2 or 3 hours of good morning sunshine, let alone the bad habit from which he will have difficulty in weaning himself, when the time comes for going to school. A number of children suffering from rickets could have undoubtedly benefited by a more careful schedule with regard to morning sunlight.

As a result of poor dietary habits, insufficient sleep and rest, a large proportion of children were found with poor posture, poor muscular tone and habitual constipation.

Enuresis is frequently accepted by parents as something beyond control. Though enuresis may be a symptom associated with organic diseases such as tuberculosis, rickets, chronic gastrointestinal disturbances, inflammation of the bladder, and local irritations such as adherent prepuce, it is most often a habit due to faulty training. In this habit, more than in any others, the coöperation of the child is required and the parent should gain this coöperation.

If occasionally my time was wasted in a vain effort to convey some idea about corrective habits to an uninterested and not very intelligent mother, on the other hand I have been rewarded many times for my effort when I encountered parents who were genuinely interested and who were very willing to follow a better path when such was pointed out to them.

The physical examination was as complete as possibly could be made in from 6 to 10 minutes, and included eyes, ears, nose and throat as well as heart, lungs, abdomen and posture.

We are not able to go into all the fine points of an exact diagnosis in the short time given to each child. We do believe that no major defect escapes us. To discover that the child needs attention, and to see that the parent so informed is urged to take the child promptly to the family doctor, these are our responsibilities. The larger part of the task is completed in the private office of the general practitioner or specialist, who will give the time required and who is equipped with all the instruments needed.

The physical examination completed, the child is passed on to the dental hygienist. There a prophylactic treatment is given and oral hygiene talked about to the parent. The neglect of oral hygiene in the rural communities is most unfortunate. We dwell on the importance of the conservation of the 6-year molar, because it is so often mistakenly considered a temporary

tooth, even by more intelligent parents, with the result that no more attention is given to it than to the other temporary teeth.

Many of the children never use a tooth brush though a good many of them were quite eager to manage the art of such, but the mother thought they were "too young." It is impossible to teach any one all there is to know about oral hygiene in 5 minutes, but 5 minutes often proves sufficient time to stress the importance of oral hygiene in a striking way. The dental hygienist may ask the mother if she keeps her food clean, if she washes the dishes after each meal, and how inconsistent it is to eat this clean food from clean dishes with unclean teeth and thereby defeat all her hard efforts for cleanliness! An argument as simple as this goes a long way in a brief lesson in oral hygiene.

The health unit in Westmoreland County examined 5552 children during the summer. Classified according to age they were grouped as follows: Under age one, 586, or 10.5 per cent; from age 1 to age two, 714, or 12.8 per cent; from age 2 to age six, 3392, or 61.3 per cent; over age six, 860, or 15.4 per cent.

The group over age 6 includes the Mothers' Assistance Fund wards and a few children who failed to enter school for one reason or another last year.

The children were also classified according to their general condition, into 4 groups, excellent, good, fair, and poor; of the entire number examined only 178 children, or 3.2 per cent were classified as in poor condition. The result of the examinations of the rest of the group does not cause us to rejoice too much about the findings. One thousand six hundred sixty-eight children, or 29.4 per cent, were in fair condition; 3527, or 63.5 per cent, were in good condition, and only 63 children or 1.1 per cent were classified as excellent.

When the children are classified according to posture as excellent, good, fair, or poor, it will be seen that even a smaller percentage of the children are enjoying the labeling of good or excellent. Only 17 children, or 0.3 per cent were in the excellent group. Only 2612, or 47.4 per cent were classified as good; 1614, or 27.7 per cent as fair; and 36, or 1.8 per cent as poor. Children under 18 months of age can not be graded for posture.

A large percentage of the children, though in good general condition, did not have good posture. It seems that muscle tone is the first to suffer from lack of proper hygiene.

In summarizing the Health Car work, an enumeration of the defects found is also made.

Children with faulty tonsils constituted the largest group, 3174, or 57.1 per cent, the degree of diseased conditions in these structures varying from simple enlargement, in which the appearance warrants careful watching, to acute follicular tonsillitis, with pus exuding on the slightest pressure and, strange to say, the latter was no more frequently suspected by the parents than the former. I shall again refer to the tonsils in a later part of this paper in correlation with some other findings.

Mouth breathing was observed in 17 per cent of the children. In a number of cases this was not associated with enlarged tonsils or nose and throat affections, but with impacted wax in the ears.

While we were still at work some physicians told me that they had already been visited by children referred to them with cards for treatment of wax in the ears. The presence of the above associated symptom, namely, mouth breathing, is on the basis of the 2 so frequently existing, that when we find a mouth-breather with no nose and throat pathology, we recommend that a doctor be consulted if the case shows impacted wax in the ears.

Enlarged cervical glands were observed in 42 per cent of the children, mostly associated with enlarged diseased tonsils or dental caries, one or both. In a large percentage of the cases the cervical adenopathy with no evidence of diseased tonsils, nor history of frequent colds and sore throats, was associated with carious teeth alone.

Isthmus and thyroid enlargements were found in nearly 5 per cent of the children. This finding varied very much with communities. My own recollection of our work is that in Scottdale there were more palpable thyroids than in any other community. Whether or not the water supply may have something to do with it might be worthy of investigation. Occasionally we would find a palpable thyroid in the child and a distinctly enlarged thyroid in the mother.

Evidence of some cardiac defect was elicited in 358 children, or 6.4 per cent. Under this heading are included congenital hearts, functional murmurs, probably a part of malnutrition and anemia, and cases of real valvular disease. Most of these cases were so well compensated that there were no complaints, nor were there any signs to cause parents to suspect disease. Very few cases showed cyanosis of the mucous membranes and still fewer any clubbing. Not being aware of any disease these children had been unrestricted in their activities and most of them had not even the sufficient amount of rest required by a normal child. Since a large per-

centage of the cardiac defects was associated with diseased tonsils, the early discovery ought to be a great benefit to the child.

Flat feet and pronated ankles were found more commonly than one would anticipate. As these are especially apt to occur in rickets in many children in whom the rachitis had been cured or healed, the foot and ankle deformity persisted and though in some it was not very marked, all the children would probably benefit by special exercises. In a large proportion of the cases, however, the malformation was beyond this stage and required orthopedic treatment.

Phimosis was found in 1105 children, about 20 per cent. As this is often the result of neglect, caused by unreasonable fear on the part of the mother, in many instances it could have been prevented if the parent had had an understanding of the simple care to be given in the early weeks of infancy.

Lung defects were observed in a relatively small number, as one would naturally expect, considering the age of the group examined; but, even so, the chest examination is exceedingly important. I should like to emphasize a special observation which I had an opportunity to make. In a few communities suffering from an epidemic of whooping cough, some of the children who had recovered from the infection, had a certain amount of residual disease in their lungs. The impression of the underlying conditions, from the signs elicited, was that of possible bronchiectasis. Whether these findings will persist and whether they will increase the susceptibility of these children to tuberculosis is a question. It would certainly be interesting to follow up the cases in the school medical inspection and one would suggest that, if possible, a tuberculin test be given these children at that time.

Hernias were found in a small number of children. Most of these were umbilical, 126; inguinal, 24; and scrotal, 8. There were 6 hydroceles.

As to other eye conditions, there was a large percentage of minor defects like sties, folliculosis, *etc.*, found as part and parcel of general malnutrition, or associated with diseased teeth and faulty tonsils. These minor defects become important if one considers their total number, which was 2074, or 37.3 per cent. Seventeen hundred eighteen children, or 30.9 per cent, were regarded as subject to frequent colds. Whether these are the cause or effect of diseased tonsils and malnutrition, one would hesitate to say, but that they often go together is a fact and

In our group of children the percentage of diseased tonsils associated with frequent colds, was 83.9 per cent. Among a total of 3174 children with faulty tonsils there were 316 cases, or 10 per cent, in which the condition was associated with some cardiac defect. In 1550, or almost 20 per cent, there was a history of the associated symptoms of frequent colds and sore throats. The presence of a cold alone predominated as an associated symptom in 83.9 per cent. Both symptoms, colds and sore throats, were present in 49.5 per cent and 13.5 per cent had sore throat alone, as an associated symptom. Cervical gland involvement was found in 48 per cent of all tonsillar disease.

The above figures correspond with the figures given by Professor Winslow in his report on defects found in children in Cattaraugus County, N. Y., in 1928.

It seems incredible that at the present day when we may enjoy safety from smallpox and diphtheria through such simple, easy, methods, only 578 children of the 5552 examined, that is only 10.4 per cent, were immunized against diphtheria; and only 924 children, or 16.6 per cent, were vaccinated against smallpox.

We referred 2832 children, or 51 per cent of the total examined, to their family doctors. It is indeed striking if one stops to think that actually more than half of these supposedly well children, required some kind of medical attention. Many of the conditions being symptomless might not otherwise have been discovered, but would have been allowed to progress unrecognized until some signs would manifest themselves, caused by pathology of much graver extent than the present one.

One is even more impressed with the large number of children referred when we compare

the results of the Health Car work for the summer of 1931 with the corresponding findings of this year.

1931

Total children examined	8872
Rated as not in good condition ...	1611 or 18 per cent
Number referred to family physician	3317 or 37 per cent

1932

Total children examined	9541
Rated as not in good condition ...	2959 or 30 per cent
Number referred to family physician	4756 or 51 per cent

It is easy to draw the conclusion that the present economic conditions have had a grave influence on the normal development of preschool children.

The interest in child health work which has been gradually rising during the last decade, and which in the beginning was an expression of a few persons directly connected with child health activities, has now acquired wide public attention.

The increasing concern for young children has now penetrated into the homes of busy families.

The returns from May Day—Child Health Day celebrations throughout this State, of which program the Health Car work is a component part, indicate that, in spite of present grave difficulties in giving children what they need for health, nevertheless more was done this year to make possible the giving of physical examinations to young children than in any previous year.

This health crusade for protective and preventive work among preschool children was striking in its success as compared with other years, because parents are genuinely wanting to know more than ever "what ought to be done."

245 South Main Street.

PERFORATING AORTITIS

Report of Cases

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The aorta is so deeply placed in the posterior part of the torso and so hidden behind soft organs and hollow viscera that not only gross lesions of this important structure are frequently overlooked but even the terminal stage of aortic disease, perforation, often fails to be diagnosed correctly. If the rupture is small and occurs in the descending aorta, a hematoma is formed behind the left parietal pleura, dissecting it from the chest wall producing a characteristic appearance readily diagnosed by radiographic examina-

tion. Large perforations of course are immediately fatal but the cases herewith reported illustrate that the patient may live for a variable time after a perforation, having a large mass of extravasated blood in the thorax. The rupture produces immediate shock and lowering of the arterial pressure and the pressure in the hematoma rises to the point at which the outflow is temporarily checked and some clotting of the extravasated blood may occur but the balance thus attained is easily upset and usually short-lived.

The three patients, whose case reports are given, had negative blood Wassermann tests; carious teeth with alveolar infection; and one had an attack of acute articular rheumatism immediately preceding the aortic perforation. Incorrect diagnoses made in these cases were ruptured gastric ulcer and renal calculus, suggested by the pain and shock, and strangulated hernia. Hemoptysis suggested the possibility of pulmonary tuberculosis in one case. All were beyond middle life and had rather marked arterial hypertension.

REPORT OF CASES

CASE 1.—W. K., age 57, white, male, locomotive engineer, was suddenly seized, May 22, 1928, with sharp pain in the epigastric region radiating to both sides, described as cramplike and "felt as if the tissues were tearing apart." He was nauseated but did not vomit. The pain continued somewhat less acutely for a week and on May 28 he was admitted to the Altoona Hospital complaining chiefly of pain in the epigastrium and upper abdomen. Physical examination disclosed a well nourished and well developed adult male not appearing acutely ill and showing no abnormality of the chest or abdominal organs. The blood pressure was 172/98; urine, normal, except for occasional faint trace of albumin; blood urea, 27.6 mg.; k. e., 45 per cent; blood count, normal; Wassermann test, negative. Roentgen-ray examination showed no evidence of calculus in kidney or ureter; an infected tooth was removed. The epigastric pain gradually disappeared while resting in the hospital and the patient was discharged, improved, June 22.



Fig. 1. Massive shadow, averaging 13 cm. in breadth, reaching from the suprasternal notch to the diaphragm. (Case 2.)

On Aug. 16, 1928, while eating breakfast, a sudden severe pain was again felt in the epigastrium and in the back below the left scapula. He vomited and the pain became less severe but the next day at 5 a.m., a similar attack recurred and he again entered the Altoona Hos-

pital. A provisional diagnosis of gastric ulcer was made and physical examination at this time revealed marked emaciation especially of the face and extremities; the patient appeared acutely ill and could rest only on his right side; the outline of the heart appeared displaced about 1 cm. toward the right, the cardiac impulse was rapid and forceful, rate 100 per minute, but the radial pulse was weak. The pulmonary excursion seemed restricted; blood pressure was 130/90. Blood count: Hemoglobin, 70 per cent; white blood cells, 17,500; red blood cells, 3,700,000. The discomfort appeared to subside somewhat later in the day, but at 11 p.m., he suddenly shrieked, gasped for breath, and in a few seconds the heart ceased to beat.

At necropsy an immense hematoma was found behind the left parietal pleura dissecting it from the thoracic wall and pressing the lung forward and the heart to the right. It extended into the mediastinum filling it and causing it to bulge laterally. It also extended downward behind the diaphragm and produced ecchymosis of the gastrohepatic ligament and the lesser curvature of the stomach. The hemorrhage also burst through the pleura and entered the pleural sac, a large mass of coagulated blood being found lying on the diaphragm and between the lobes of the left lung. The source of the hemorrhage was a comparatively small rent in the upper part of the thoracic aorta. At this point there was an ulceration involving the intima and media for perhaps half the circumference and the blood appeared to dissect between the media and adventitia and escape a few centimeters lower down through an opening in the latter only 5 or 6 mm. in diameter. The ascending and transverse portions of the arch of the aorta were approximately normal except for a few small cicatrices. The descending aorta to the level of the liver, however, was markedly atheromatous, being scarred with numerous large healed ulcerations. The liver was pale yellowish gray and had numerous pinhead sized indentations on the surface. The gallbladder was large and filled with stones. The spleen measured 14.5 by 8.5 by 3 cm.

Though the condition unfortunately was unsuspected before death and roentgen-ray examination of the chest not made, the clinical history would indicate that the rupture of the aorta first occurred 87 days before death and that the cause of death was the breaking of the hematoma through the pleura into the pleural sac thereby releasing all resistance and producing exsanguination.

CASE 2.—W. R., age 59, white, male, truck driver, of intemperate habits was "on a spree," Nov. 15, 1928, which ended in the gutter. The family physician on being called to his home found him in a state of shock, practically pulseless. His condition remained very unsatisfactory and on Nov. 22 he was admitted to the Mercy Hospital. Physical examination showed a poorly nourished man who appeared older than his age and seriously ill. He was weak and had a peculiar tottering gait. Pupils reacted sluggishly to light and the left one was larger than the right. The heart was slightly hypertrophied, the aortic second sound was accentuated but otherwise appeared normal. The abdomen was somewhat tender and there was some rigidity of the abdominal muscles. The blood pressure was 178/106; pulse rate, 88; temperature, 98° F.; urine, normal. Blood examination: Hemoglobin, 75 per cent; white blood cells, 12,500; red blood cells, 4,100,000; polymorphonuclears, 70 per cent. Blood Wassermann test was negative, and spinal fluid was normal and negative to the Wassermann test.

Roentgen-ray examination, Nov. 23, 1928, showed a massive shadow averaging 13 cm. in breadth reaching from the suprasternal notch to the diaphragm including the mediastinum where it is densest and extending downward behind the heart. The lateral margins are fairly straight and almost parallel with the long axis of the body. This picture closely approximates the appearance found at the necropsy of CASE 1. On Nov. 24, he became irrational and progressively weaker until 3 a. m., Nov. 28, when he died after copious hemoptysis of bright red blood. Although a necropsy could not be obtained the clinical history indicates that he sustained a rupture of small caliber of the aorta 13 days before his death and that rupture of the hematoma into a bronchus produced exsanguination.

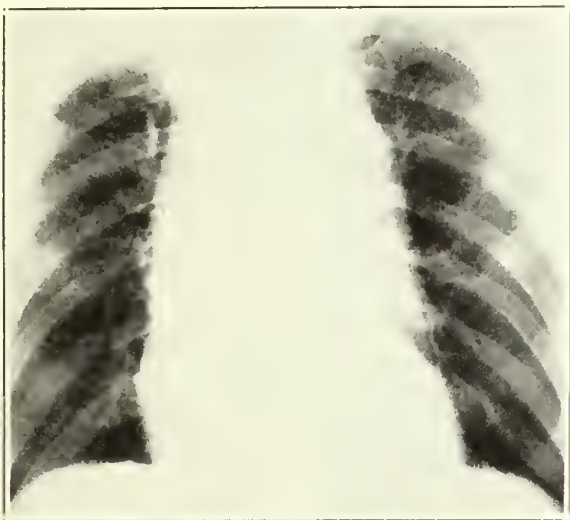


Fig. 2. Ascending and transverse portions of aorta enlarged; the descending curve displaced toward the apex of the left lung; large postpleural shadow. (Case 3.)

CASE 3.—W. E., age 70, white, male, shop foreman, tall in stature and of energetic disposition had been intermittently under medical supervision for 7 years for arterial hypertension, the blood pressure averaging 188 mm. systolic. On Aug. 11, 1929, he reported at his physician's office complaining of lameness. One ankle was found to be red, swollen, and painful, with other joints painful. The temperature was 101.5° F. A diagnosis of acute articular rheumatism was made and he was sent home to bed and treated with salicylates and the

specific streptococcus cardioarthritidis serum. The rheumatic symptoms gradually subsided and about 10 days later several infected teeth were extracted at his home.

At 3 a. m., Sept. 17, he suddenly had a copious hemoptysis of bright red blood producing shock, weakness, and pallor. Pulmonary tuberculosis was suspected as another member of his immediate family was known to have this disease but no acid-fast bacilli were found in the sputum and definite physical signs of pulmonary tuberculosis could not be found. Radiographic examination of his chest was made, Oct. 5, and the ascending and transverse portions of the arch of the aorta found to be greatly enlarged and the descending curve displaced toward the apex of the left lung. There was also a dense shadow averaging 10 cm. in breadth extending from the level of the clavicles to the diaphragm, lying chiefly to the left of the midline and extending downward behind the heart shadow. No evidence of tuberculosis was found. It then became apparent that marked aortic disease with dilatation was present and that a small rupture had already occurred producing a rather large hematoma behind the pleura. The serious nature of the condition was realized and rest in the recumbent position in bed with minimum expenditure of energy was enjoined; low caloric diet was given and the level of the blood pressure was kept down to about 140 mm. by the administration of sodium nitrite. On Oct. 20, he had a slight hemoptysis but the remainder of the month was uneventful and a radiogram, Nov. 7, showed conditions the same as at the previous examination. During December, neuralgic pain and some disability of the left forearm occurred, also dysphagia more pronounced at times; and dilatation of the left pupil was noted. Slight hemoptysis occurred, Jan. 2 and Jan. 28, 1930; and on Feb. 1, 1930, a copious hemorrhage produced exsanguination and death. Accepting Sept. 17, 1929, as the time of first rupture this patient survived 126 days.

SUMMARY

1. Rupture of the aorta below the arch produces a rather characteristic postpleural hematoma.

2. It can be readily diagnosed by radiographic examination, especially by stereoscopic radiography.

3. It appears possible to live as long as 4½ months with aortic perforation.

1312 Eleventh Street.

POLIOMYELITIS

In McKean County, Pennsylvania, in the Fall of 1932

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This is a report of 46 cases of poliomyelitis which occurred in and around Bradford, McKean County, Pennsylvania, in the fall of 1932. We estimate that the population of this area is about 25,000, almost 2 cases for every 1000 of population.

The ages of these patients ranged from 17 months to 45 years.

These cases occurred in the private practice of 7 of the physicians in Bradford. Most of the patients were brought to the Bradford Hospital, but each doctor made his diagnosis and conducted the treatment of his cases; there was no uniform method used.

The symptoms were nausea, vomiting, fever, malaise, and stiffness of the neck and back.

Some of the patients had constipation; a few diarrhea, but neither was general. Only a few complained of sore throat. All were very sick. Some were in a highly nervous state. One of the children had a tremor of the hands. Three of the women had twitching all over the body—could not hold themselves still. The eyes of one child twitched and this was the patient who showed nystagmus.

PHYSICAL SIGNS

Most of the cases showed a slight pharyngitis. The glands were not swollen; the heart and lungs were clear. There was fever averaging 100° F. to 101° F.; in some children it reached 105° F. by rectum. Stiffness of the neck and back was present without an exception. To demonstrate the stiffness of the back, the patient was asked to sit up in bed and to put the head down between the slightly flexed knees. Practically no patient was able to do this without pain and the back did not curve as it does in a well person. Stiffness of the neck was shown by having the patient try to put his chin on his chest. Most patients could not do this.

Reflexes: Most of the cases except the 5 paralyzed ones showed exaggerated reflexes. One or both of the knee jerks were increased; the upper extremity reflexes were increased in many cases. One or more of the abdominal reflexes was frequently lost. Clonus of 1 leg was found in 2 cases. One child showed nystagmus. Some showed a positive Kernig; Babinski was negative. Tenderness of the body on gentle pressure was conspicuous by its absence in this epidemic.

SPINAL FLUID

Lumbar punctures were done in 41 of the 46 patients; in 28, the cell count was 10 or above, 12 of the patients having a count below 10. The spinal fluid of 3 patients stood over night before it was counted; it might have been higher if done immediately as it should have been.

Three who are still paralyzed had a count below 10 when the count was first done. The spinal fluid from one case had blood in it so it could not be used.

The globulin of the spinal fluid is recorded in 35 of the 46 patients; being present in 29.

The differential cell count of the spinal fluid was not done in many of the cases, the lymphocytes were greatly increased in those in which it was done.

The pressure of the spinal fluid was slightly increased in most of the patients; in 1 it was under high pressure and in 2 it was decreased.

The spinal fluid was sterile in the few cases in which it was cultured.

The urine examination was negative except that a few of the patients showed a positive acetone or diacetic acid or indican test. In some, 2 of the 3 were positive. If the fever was high a small amount of albumin would be found as would be expected. One case showed renal involvement which yielded to treatment.

The blood counts showed nothing of importance.

DIAGNOSIS

The tentative diagnosis was made on the following symptoms and signs: A real sick child or adult with nausea, vomiting, fever, malaise, exaggerated reflexes, stiff back and neck, headache, sometimes intense, and usually backache. A patient with this syndrome was usually taken to the hospital and a lumbar puncture done. If the count was 10 or above the diagnosis was confirmed. Of the 12 whose cell count was below 10, three had paralysis.

RESULT

There was not a death in the 46 patients, only 5 developed paralysis, and they were among the first 6 of the cases. Many showed weakness of the legs, and especially of the trunk muscles, which disappeared after 9 to 12 weeks in bed.

TREATMENT

Most of the patients were given convalescent serum intravenously, and in addition intraspinally or intramuscularly. The dose was from 5 c.c. to 30 c.c. depending on the location of the injection and the age and size of the patient.

A small supply of poliomyelitis convalescent serum was obtained in Olean, N. Y. The Pennsylvania State Health Department furnished some. When that was exhausted, we appealed to the New York City Board of Health. Dr. William Park sent the amount requested and when he heard the extent of the epidemic he offered to send Dr. William B. Brebner, who was then in Toronto, to help with his advice.

Dr. Brebner came, Sept. 10, 1932. He saw the cases that had developed up to that time and confirmed the diagnosis. He advised using the serum intravenously and intramuscularly, not intraspinally because of the chemical meningitis that had been caused by the preservative used in the serum in some cases of which he knew. He also told of the use of whole blood from adults both as a curative and prophylactic measure. Following this suggestion, whole blood from one of the parents was often injected into the patient's buttock when a tentative diagnosis was made.

All the patients, except Case 1, received convalescent serum and, therefore, we have no controls. Certainly the opinion of the doctors treating these cases must carry weight in deciding the value of the serum. For instance, a sick person would be brought to the hospital toward night, with fever, nausea, severe headache, backache, stiff neck and back. A lumbar puncture would be done and the serum given. Next morning the temperature would be normal, the head and backache and stiffness gone and the patient ready to receive his doctor with a smile. The change would seem almost miraculous. Some cases were more refractory and would require 3 to 5 serum injections, but would finally respond to treatment.

We do not mean to infer that the use of the serum was entirely responsible for the comparative lightness of most of the cases of this epidemic. It seems more likely that the virulence of this particular virus spent itself on the first few cases. Still the physicians who attended these patients believe that without the serum there would have resulted more palsy and possibly death. A help was the fact that after the first few cases, the physicians were called to see patients early. The press and other agencies were used to urge the people to call a doctor when the patient was first sick. In this way the diagnosis was made and serum given before the virus had had time to do its worst.

ADULT BLOOD AS A PROPHYLAXIS

Dr. Brebner suggested that whole blood from parents should be injected into the buttocks of well children to avoid contracting the disease. This procedure is based on the fact that most adults have developed an immunity against poliomyelitis.

Dr. Brebner so impressed the doctors that they immediately had their own blood injected into their own children. Many parents immediately followed suit. The Bradford Board of Health established free clinics to which indigent parents might come to have their blood given to their children. From 2 c.c. to the little babies to 20 c.c. to those age 16, were injected. Most of the children had no ill effects. A few had serum sickness, but not one had any serious result.

Twelve hundred well children were injected with adult whole blood. Only one child who had this treatment developed poliomyelitis. A boy, age 7, developed the disease 7 days after he had blood from his father. He was very sick but convalescent serum was given him and next day his temperature was normal and his symptoms had disappeared; he made an uneventful

recovery. Whether the improvement in this case was due to natural causes or to the convalescent serum or whether the parent's blood while not entirely protecting the child conveyed some immunity and so contributed to the good result is one of those immunity questions it is hard to answer.

About half the cases occurred after the whole blood injections had been started. There are about 2500 children in Bradford. One might consider the 1300 who did not receive whole blood as controls for those who did. It is at least significant, if not convincing, that 22 of the cases developed from the controls and only one from the treated group. Dr. Brebner wrote that he was eager to know the result of our experiment in prophylaxis but he died before the figures just given could be sent him.

The citizens of Bradford and especially the physicians feel very much indebted to Dr. Brebner for the help he gave in handling this epidemic.

This report adds nothing to the knowledge of how poliomyelitis is conveyed. The Bradford Board of Health investigated different avenues of contagion, but not more than 2 individuals, of the many who, for instance, lived in the same small community, swam in the same pool, visited the same camp, or bought food from the same shop contracted the disease.

In 2 instances, 2 cases occurred in the same family. Two brothers, age 10 and 12, were stricken the same night. In another family a girl age 11 was at the hospital poliomyelitis ward 3 weeks and went home; her brother age 21 contracted the disease just 11 days subsequent to her return. Feb. 11, 1933. The orthopedic nurse thinks that many of the children, though they have no paralysis are in a highly nervous state; are irritable, cross, and hard to manage.

Three of the cases which occurred in the first 6 of our group have definite paralysis which will probably persist. One other case may or may not be left paralyzed.

SUMMARY

Forty-six cases of poliomyelitis are reported varying in age from 17 months to 45 years.

Diagnosis was based on the usual syndrome of symptoms and physical signs and the cell count of the spinal fluid.

The treatment consisted of the use in almost all cases of serum of patients convalescent from poliomyelitis. Serum was used intravenously and also either intraspinally or intramuscularly.

Adult blood was used as a prophylaxis in 1200 well children. Only 1 child contracted the dis-

case after this treatment. This procedure was suggested by the late Dr. William B. Brebner, of the New York City Health Board.

On Feb. 11, 1933, only 3 patients had definite paralysis which will probably persist. One other case may and may not be left paralyzed.

In conclusion, I wish to express appreciation to the following persons, without whose interested coöperation this report would not have

been possible: Drs. S. A. McCutcheon, B. F. White, F. W. Paton, H. A. Wilson, H. S. Callen, and B. H. Hall; the manager, superintendents, and nurses of the Bradford Hospital; R. G. Vogel and Miss Erla McCarthy of the Bradford Board of Health; and Miss Edith McKeen, orthopedic nurse for the McKean County Society for Crippled Children.

160 Pleasant Street.

MYOCARDOSIS

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Recently it was my pleasure to read the American Medical Association's *Package Library on myocardosis*. Pondering over its contents, I am led to believe that the writers have a generalized conception of what ought to be and that the principle espoused undoubtedly will be put over. The idea is a heroic one and needs support.

One cannot help becoming befuddled by the contradictions and inconsistencies in, for, and against arguments in what they believe should, or should not be diagnosed clinically as myocardosis.

Can the term or word "myocardosis," a symptom-complex, be maintained and defended? I believe not. Inasmuch as we are trying to characterize "*itis*" and hold it to its true meaning, we should fulfill the demand for a term or word to designate the clinical syndrome caused by heart weakness or insufficiency, primarily without known etiology and no discoverable pathology, *i. e.*, an essential myocardial insufficiency.

The "osis" in nephrosis is established as a distinct entity. The "osis" in myocardosis does not imply similitude.

If I interpret aright Cabot's, Riesman's, and the Philadelphia Heart Association's thoughts and talks, they classify, and I believe correctly, the various degenerative and inflammatory heart conditions, etiologically and pathologically, specifically according to known or suspected conditions and in accordance with history.

It is known that the primary diagnosis of myocarditis is often made and rarely found verifiable unless secondary to well-known specific causes and made through or by clinical pathologists' necropsies.

Textbooks describe myocarditis, acute or chronic, to mean acute or chronic degenerative or inflammatory changes, or a combination of both, in the myocardium, brought about by acute or chronic infectious and toxic processes or diseases, arteriosclerotic and senile vascular changes, hypertensive and nephritic vascular

changes, *etc.* Many authors include myocardial insufficiency or weakness due to diabetes, the various anemias, scurvy, and other nutritional and food deficiencies, which profoundly affect the general nutrition.

Richard C. Cabot says in *Facts on the Heart*, p. 494, 1926 edition: "Myocarditis has little if any standing as a recognizable syndrome; that the myocardium, like any other muscle, if overworked, may give out and cease to function." For many years Dr. Cabot has maintained that the diagnosis of myocarditis is impossible during life and should be left out of clinical terminology. Furthermore, Cabot says: "If we attempt a diagnosis of myocarditis this must depend upon the history and symptoms of the case."

On numerous occasions I have listened to the convincing talks of David Riesman, of Philadelphia, when he stressed the inadequacy and erroneous use of the word "myocarditis." I am one of those more than willing to accede to his wish and thought that we abandon the use of the word in which the clinical syndrome usually is attributed to the heart in which there is no etiologic factor, in history or pathology, to justify the assumption that there is one present.

J. B. Wolffe, Philadelphia, *Journal of the American Medical Association*, Aug. 2, 1930, states: "All are more or less familiar with the objections voiced in regard to the loosely used term 'chronic myocarditis' as it appears on hospital records and death certificates."

Many others also sense "the need for a word more expressive of the real, underlying pathologic changes, or more correctly the absence of anatomic pathology, other than complicating ones."

"What is of far greater importance to both clinician and pathologist," writes Hyman and Parsonnet in the *New England Medical Journal*, March 26, 1931, "is the fact that many individuals who present undisputed symptoms of

myocardial impairment in life may exhibit hearts which are apparently normal, even after the most searching scrutiny on the autopsy table and sectional investigation. This perplexing question and by no means infrequent paradox is seen not only in those patients who suddenly drop dead from angina pectoris but also in those individuals who give a long history of cardiovascular dysfunction.

"There can be no question, therefore, but that a purely physiologic condition arises in the heart which has no pathologic counterpart, in so far as our present methods of laboratory investigations are concerned. For this reason the attempt to hitch a purely pathologic diagnosis to such conditions is no more sound than the previous attempt of pasting a chronic myocarditis label upon such cases."

"The term, 'myocardosis,' " writes Louis H. Sigler, Brooklyn, New York, in the *J. A. M. A.*, June 21, 1931, "offers a correct classification of this group as distinguished from acute, subacute, and chronic inflammatory processes, and from fibrotic degeneration of the myocardium. Furthermore, using the term 'myocardosis' as Hyman and Parsonnet do, to designate fibrotic changes of the myocardium, is superfluous as the good descriptive terms 'fibrous myocardium or myofibrosis cordis' are available to designate the existing pathologic states in such hearts, and there is no need of any other confusing and meaningless terminologies."

The why of the "Failing Heart of Middle Life," of Riesman is the question! Why some men and women, mostly men, get heart weakness or insufficiency, manifesting itself very much or exactly like heart weakness or insufficiency caused by degenerative, inflammatory, arteriosclerotic, and senile, or a combination of two or more heart changes with their complications, without its pathology and of unknown etiology, is the problem.

Various outstanding explanations seem plausible and help to clear the atmosphere of doubt and value, for and against the need for a new term or word to designate the clinical syndrome.

With right perception and correct reasoning of the idea espoused, the need for a short, but clear, precise, and comprehensive term or word to express the clinical syndrome in such individuals can readily be sensed.

One must see the situation as a whole; the patient, his inherent tendencies and capabilities, environment, and behavior. "So striking is the clinical picture and so abrupt are the changes in these individuals" that they can readily be recognized.

The fundamental and outstanding symptoms: The difficult or labored breathing, fluttering or throbbing of the heart, substernal distress, and too readily induced muscular fatigue, *etc.*, dominate the picture.

Essentially and primarily, the condition is of unknown etiology. Predisposing causes undoubtedly are many. Hypertensive activities and emotionalism are accepted ones. The diseases which spring from emotions Dr. Crile calls "the wound stripes of civilization," and states they are exophthalmic goiter, neurocirculatory asthenia, diabetes, peptic ulcer, high blood pressure, and heart disease. The way by which the emotions injure the organs of the body is well on the way to physical explanation. What we need to know is that, even if an emotion is a physical thing capable of expression in a mathematical equation, we should be concerned with the control of ourselves. Heredity is another accepted cause. Other predisposing causes may be due to the stupendous change in human thought and life which the scientific and industrial and machine age and revolution have brought about. Changes in man's living conditions and activities have speeded up to where the factor of safety in cardiac reserve is no longer sufficient to usual requirements in certain persons, following 10 to 15 years of maturity. Lack of stamina and general malacia of the body functions, especially of the heart, are evidenced early, before the usual aging process manifests itself. The victims of this condition evidently know how to labor mentally and physically, especially the former, 365 days in the year, but fail to recuperate the cardiac reserve from their work, play, rest, and sleep. Abnormal and excessive fear, worry, and haste to be rich, may occasion this calamitous condition. Many may not know the culture of mental and physical leisure.

Hypertensive activities need masterly control of self and often relaxation to calmness, to go fishing to catch well-being and reserve powers. Life must be guided and warmed in the unctuous sunny side of life's work.

Modern life and civilization give much to their participants; but they have to pay heavily for all they get; too heavily in particular cases. Such individuals should be warned against exceeding their functional capacities, especially of the heart.

Those afflicted with essential myocardial insufficiency possibly know not how to do masterfully and delightfully to the manner born of well-being. They possibly fail to absorb "some of the quality of the sun, that great giver of life, color, and joy."

As a preventive, one should cultivate the art of "doing delightfully nothing at times," like the proverbial Englishman. Educate to cheerfulness in the ordinary life of the day; take satisfaction and glory in the routine life as it is; become wise to self-control, morals, and ethics, to hygiene. The health of persons is increasingly dependent upon hygienic wisdom and its use.

The great Faraday said: "Facts are important to me, and saved me. I could trust a fact and always cross-examined an assertion." Some men are like Faraday, and others should be in such a controversial matter.

The time and need is here to use a new term or word, such as "essential myocardial insufficiency," or possibly "myocardosis," and to lay aside the much abused and misused word "myocarditis" if there is no legitimate reason to support the diagnosis.

This need was felt for many years by eminent physicians, notably Cabot, Riesman, Hyman and Parsonnet, Elmer and Rose, Kong, Wolffe, Sigler, and others. There is no desire to supplant the word myocarditis, but to supplement our nomenclature in cardiac diseases with a term or word which conveys a meaning to an ever-

increasing demand to designate a syndrome caused by heart weakness or insufficiency which primarily is without known cause to account for it "in the failing heart of middle life."

Progress implies greater specialization, and nomenclature is no exception. The physicians mentioned and many others have taken command of matters with a conscious attempt to correct an apparent wrong and put character, not only to the word myocarditis, but to the use of a new term or word to fulfill a want and need. The design in their effort is to do the correctional thing.

The urge may arise in the roots of the scientific and machine age of fact and precision. Nothing changes suddenly, by itself considered. Custom and habit furnish the rule. Essential myocardial insufficiency, like essential hypertension, for directness and simplicity, in whatever manner or degree, by itself considered, would be an expedient diagnosis.

Perhaps, "essential myocardial insufficiency," instead of "myocardosis," is a better technical description of an as yet indefinitely termed clinical entity.

253 Bushkill Street.

PHYSICAL INCOMPETENCE AS A RESULT OF SEXUALLY REPRESSED EMOTIONS

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Among the class of patients who come to be treated for sexual neuroses are those who drift from one physician to another because of the variety of mechanisms that produce the heterogeneous symptoms. It is necessary to elicit a complete and detailed clinical history as a basis for diagnosis and treatment. The patient's difficulties, real or imaginary, are then sounded and his social and economic obligations and temperament gauged, so that the proper advice may be offered.

The men and women of normal type who are engaged in the creation and preservation of the family are usually undemonstrative but strongly emotional. The great mass of humankind are of the breeder type who look forward with joy to parenthood, and who live normal sex lives.

It has been shown by Freud that the sexual impulse gives much evidence of its existence almost with the dawn of existence. It is a normal physiologic phenomenon from early life. Abnormal gratifications seem to do more harm than good, particularly the act of masturbation, which may be long practiced and produce an unhappy

state of affairs. Some impairment of sexual potency accompanies the act if habitually pursued, such as a tired feeling on arising, heaviness of the legs, certain gastric symptoms, and in the psychic sphere, inability to concentrate, together with irritability or anxiety. Certain character traits are carried with him, such as a sense of guilt or fear of discovery. He shuns company and becomes timid, overcautious and circumspect.

There is no advocacy herein of free sexual relations, for promiscuity leads to physical dangers, such as the social diseases and to illegitimacy. Numbers of unintended babies are found in the families of professional persons and quite a number of abortions and illegitimate births occur among college and business women. In such cases, the social workers, psychiatrists, students of mental hygiene, and physicians who are confronted frequently with the plain facts of maladjustment are under obligation to offer scientific guidance. Accurate and impartial knowledge should be had of the outcomes under varying conditions, of the types of sex behavior.

The rich possibilities of voluntary monogamy are to be shown as offering the finest basis for mental and physical soundness and completeness and the elimination of certain minor symptoms that accompany the necessary emotional repressions of celibacy, the nervousness, insomnia, easily fatigued state, and the like. Sometimes more serious symptoms of pelvic distress in the female, backache and dyspnea.

It is observed that most symptoms are mental and psychopathic, such as nocturnal dreams, nervous fatigue, insomnia, vertigo, attention to and exaggeration of slight symptoms.

It seems that the young adult of either sex whose sex emotions are repressed, through no precise fault of his own, but rather through chance, has the faculty to conjure up mental pictures and symptoms which would account for the many troublesome fears.

It may be said that night terrors may be attributed to digestive disturbances forcing to the utmost a nervous, excitable temperament. Psychology is already a force in medicine and undoubtedly will be a greater force in rectifying many minor ailments of body and mind.

Naturally the cure of such ailments does not rest with the physician but the coöperation of the patient. Nor does the intellectual acceptance and active consent of the patient and optimistic talk by the physician make possible a final cessation of all the symptoms, for the physician lacks the power to make the necessary social arrangements. All he can reasonably do is to treat symptoms and predispose the subject to take a course of rational action such as society approves.

It is the contention of Minkowski that symptoms of physical incompetence are nothing but inhibited conditioned reflexes.

The physician is puzzled how to negotiate temperamental predicaments. The advice, "forget it," may be well meant and on the right track. But some of the conditions may prove serious if neglected or long suppressed. Lack of candor and too much endurance of distressful symptoms may exert destructive effects on the body cells.

To fight against sexual needs as if they were evil, to combat them unceasingly, is to court trouble somewhere, and is as injurious as being at the mercy of the sexual drive and making victims of various persons of the opposite sex. What is needed, says Fritz Kunkel,¹ "is the functional fusion of two human beings as a free, available means to life."

The simplest explanation for the train of physical and mental symptoms that arise from suppressed sexual emotion, or from disease, is, in the words of Freud, "A flight from unsatisfying

reality into something which, though biologically injurious, is not without advantage for the patient, for it is a kind of cloister into which, with his transformed infantile longings, the patient returns when deceived by the world or unable to fight against the world."

The sex impulse, normally, appears in infancy and passes through a number of developments and enrichments, many phases of conflict, and ultimately develops into the finest cultural aspect of humanity, unless circumstances cause the mis-carriage of this impulse whereby it takes on morbid shapes in the mind and in the physique.

When circumstances render normal relations impossible of fulfillment, the true psychologic method to advise the patient is always positive. The patient is to turn attention to some other thoughts, expel the evil with the good, instead of just inhibiting it. As Royce² puts it, "You teach a man to control or restrain himself as soon as you teach him what to do in a positive sense. Self-restraint and inhibition is but one of the elements."

An attitude of courage and cheerfulness will do much to overcome the evils both physical and mental that arise from a strained inhibitory effort that is long continued. Positive achievement such as sports, physical exercise, something to occupy the mind, produces a potent effect on the neurosis complained of.

The following cited cases are instances among a rather considerable group who suffer from neurotic as well as pathologic stresses:

CASE 1.—M. C. H., age 22, tall, frail, anemic male who is poorly nourished. Complains of constant night dreams, relating mostly to sexual acts. Often is suddenly awakened and finds himself in a profuse sweat and badly frightened; is restless, and appetite is poor. It is difficult to concentrate on anything requiring serious mental effort. At times becomes unusually morbid and talks wildly of self-destruction. Boasts frequently that he is decidedly different from the average run of intelligent young men and feels his superiority.

Does not indulge in any type of sports or physical exercise. Prefers to write poetry, fiction, or to bury himself in reading novels. He is constantly fatigued and must exert himself to the utmost to do ordinary physical tasks.

Complains constantly of dyspnea, palpitation, and precordial pain. It has been almost impossible to convince him that his heart is perfectly normal notwithstanding consultation with a heart specialist and cardiographic study. Feels entirely unfit for even a moderate amount of physical work due to his "bad heart." Close and intimate questioning reveals a constant thought of sex and an intense desire for continued sex gratification. When dancing, while embracing his partner, can get sexual relief by actually having an orgasm. To him such an act is entirely within the moral code but to participate in sexual intercourse would be a crime. Prefers the occasional "contact masturbation" until marriage shall bring to him permanent conjugal happiness. The constant repressed sexual emotions will continue to play

havoc with his nervous system just so long as there continues an admixture of moral and physical misinterpretations.

CASE 2.—Robust woman, age 26. Complains continually of headache and backache. Is extremely nervous and suffers from insomnia. Becomes easily fatigued and at times actually exhibits signs of dyspnea and cyanosis. Is emotional and timid. Appetite is poor and eats very little but retains her robustness. Does not dream at night but is "thinking" all day long, mostly of sex and sex questions. Would like to experience sexual relief but is afraid to make the attempt necessary to carry out the physical contact. Masturbation has been resorted to but it does not entirely give satisfaction. After masturbation, becomes morbid and feels that she has committed a crime far beyond its import. Shuns society and is alone most of the time.

CASE 3.—Woman, age 25, frail, weak, anemic, and the eyes are receding far into the orbit. Complains of headache, backache, insomnia, hot flashes, anorexia, tympanites, vertigo, frightful night dreams, and constant fatigue. Has a constant pelvic distress which has been self-interpreted as a sexual congestion. Denies masturbation but admits that she does occasionally "play" with herself. Desires to know if marriage will relieve all the complaints.

CASE 4.—Woman, tall, slender build, age 30. Only complaint is an ever annoying "pelvic congestion," which compelled her to give up teaching school. Pelvic examination was negative. Several days after the physical examination the patient returned to the office, bringing a paper of worms, the type usually found in decayed meats. She placed the exhibit on the desk stating that she had passed them from the vagina with the aid of a douche. After gaining her confidence she said she had placed them in the vagina because of the sensation produced by their crawling around upon the sensitive mucous membrane. The patient detailed her story as follows, which is similar to many others: "From the time I was a small child I lived a great deal in books and dreams. Very sensitive. I was easily affected by adverse conditions and was quite impressionable. By nature and by temperament I am not suited to adjust myself to ordinary circumstances. Inclined to be somewhat fatalistic. There is the matter of improper training and instruction during adolescence. Victorian parents were particularly stupid in this direction. I do not believe in discarding entirely the past moral code, for the future of the race is to be considered. There always will be persons wanting children but the code must, very often, be adapted to circumstances. I lacked both training, sympathy, and understanding, not only in sex matters but in relation to my environment. As I could not go to my mother for academic discussion of sex matters I was constantly bewildered and facts coldly related to me by improper channels left me mentally injured from which I have never entirely recovered.

"Repulsion towards marriage and sex problems, the fear of having children and their subsequent care, have been the most dominant factors concerning my abnormal sex attitude. When I was a child at some age under 10, I was badly frightened by a boy. No direct harm came to me but the mental shock has remained with me until this day. I do not recall that I had any sex desire until I was 19 years of age, and then it came with a suddenness that was almost too much for me. I loved this boy and I know now that it was a sexual longing I had for him, a longing that was never satisfied. Some months after this love affair I masturbated for a short

time, possibly 2 months. Out of fear and disgust I stopped the practice. When I fully realized that sex was the actual basis of love my mental attitude towards the opposite sex was such as to want to avoid them completely upon all occasions. As the years passed I gradually built up an abnormal attitude towards sex. I denied its existence in so far as I was concerned. I respected it as the basis of the human family for the same reason that I respected marriage. Sex can be overdone just as it can be too much denied. In my estimation any relationship which is merely for the bodily satisfaction is entirely wrong. Immediately after the cessation of the menstrual flow I have a strong desire for sexual gratification. Sometime ago I carried out an interesting experiment. I was determined to have sexual intercourse with one of my friends whom I admire and sincerely respect. The approach for both of us was casual but none the less with a specific purpose. I did not experience any physical or sexual gratification from the coitus. I do not know why. I was not in the least upset mentally, and the act seemed so normal as far as the moral obligation was concerned. But I do not propose to continue with a practice that cannot help me; certainly until I have gotten a far different idea of sex and sex relations."

Case No. 4 is detailed in an effort to display the deep, uncovered mental attitude of patients of this sexual neurotic group. It is of the utmost value in the treatment of such distressing neurosis to allow and to coax freedom of self-expression of sexual interpretation.

It is only with the hope of coöperative assistance from the patient that one has a genuine opportunity to produce happy results in mental therapeutics and its specific application to sexually repressed emotions.

CONCLUSION

Physical incompetence as a result of sexually repressed emotions is a more common condition than is generally suspected. The functional incompetence may easily become an organic reality if too long neglected. Patience, time, sympathy and the gaining of one's confidence is absolutely necessary for the proper handling of a potentially serious condition. As illustrated by Case 4 the unhappy sexual neurotic will contradict himself several times in as many assertions. Sexual repression is not alone practiced among the unmarried and there is often seen a definite ecclesiastical entanglement in both the married and unmarried groups. Occasional masturbation does not seem to produce the moral relaxation much needed in this group of cases. Environment, physical development, and family background all play a part in the repression.

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AMBLYOPIA AND SQUINT*

From Head Injuries at Birth

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Increasing importance is being attached by ophthalmologists to the recent literature from maternity clinics. Reported cases indicate that the so-called congenital amblyopia is often caused by retinal hemorrhages resulting from head injuries at birth.

The amblyopia referred to in this paper is poor vision in a child's eye without evident pathology to account for the defect. (Some observers say that the blind spot is enlarged in these cases, but it is not safe to rely on this examination in young children.) If a refractive error is present, an accurate optical correction will not improve the vision slightly, if at all.

This confirms observations made in school children during the past 10 years in 4195 squint cases, mostly with amblyopic eyes. These cases were examined at the Public School Eye Clinic of the Philadelphia Bureau of Health. A much larger percentage than we formerly suspected of the so-called congenital amblyopic eyes (most of them in a state of squint) were undoubtedly caused by retinal hemorrhages from head injuries at birth.

My conclusions are based on the result of careful analysis of birth histories (doubtful histories were eliminated) obtained by myself, and by school nurses from intelligent parents of the affected children. The conclusions are fairly accurate since they confirm the reports of fundus examinations of the newborn in many maternity clinics. Systematic routine fundus examinations of the newborn leave no doubt as to the frequency of retinal hemorrhages.

Statistics show that serious and fatal injuries to the newborn not infrequently occur in the course of spontaneous and quick labor, and often the diagnosis of intracranial trauma can be established only by a necropsy.

In many cases the relationship has been satisfactorily established between a preëxisting condition of the mother (syphilis, toxemia of pregnancy) or a hemorrhagic diathesis (delayed coagulation and prolonged bleeding time) of the newborn infant, may cause intracranial hemorrhages. It is an established fact that from 20 to 25 per cent of cases in which an intracerebral traumatic birth lesion of some kind is discovered at necropsy, the exact obstetric history shows a spontaneous, often quick, but otherwise normal labor.

The work done at the Pathologic Institute at Frankfort, by Philip Schwartz and his co-workers, demonstrates the fact that hemorrhages can be recognized macroscopically in 65 per cent of the brains of infants up to age 5 months. The distribution of the hemorrhages clearly indicates traumatization of the brain by the mechanism of labor, in these cases that were studied histologically by Schwartz.

Lachman¹ reported from the Johns Hopkins' laboratories results of a histologic study of 73 pairs of eyes removed from stillborn infants and others dying within the first few days. There were found in 5 of them retinal, in 6 choroidal, and in 2 others both retinal and choroidal hemorrhages which represent more than 17 per cent of fresh intra-ocular hemorrhages. He emphasizes the frequency of choroidal hemorrhages, the existence of which has not heretofore even been suspected.

Dr. W. A. O'Brien, of the University of Minnesota Medical School, at the Scientific Exhibit of the A. M. A., 1928, presented cases to show that "the injury to the skull results during any type of labor in which distortion occurs. Hemorrhages and lacerations of the falx and tentorium result, and intracranial injury and hemorrhage follow" (quoted by Jacobs).

Stocker reports that in the immediate fundus examination of 20 cesarean babies, there was not a single case of retinal hemorrhage. Berger-Loewey considered it as not improbable that in cases of congenital amblyopia, the structural changes in the region of the macula are due to retinal birth hemorrhages.

A. Graefe (quoted by Fuchs) states that some cases of nystagmus are probably attributable to a congenital retinal hemorrhage, which subsequently cleared up.

Roberts² findings in 423 lumbar punctures performed on newborn infants (without regard to character of labor or condition of the child) reveal an incidence of 14½ per cent intracranial hemorrhages. He believes to have proved that in 34 of them, perfectly normal infants, lumbar punctures revealed the presence of intracranial hemorrhages, which never could have been detected otherwise.

Berberich and Metzger proved that retinal hemorrhages could be produced in the eyes of newborn animals by exposing their heads to the effect of negative pressure.

Paul³ asserted that a systematic fundus exami-

* Read before the Southeast Branch of the Philadelphia County Medical Society, Feb. 2, 1933.

nation of newborn babies revealed evidences of a retinal hemorrhage in 50 per cent of infants born through a contracted pelvis; in 40 per cent of premature infants; in 40 per cent of protracted and difficult labors; and in 20 per cent of normal sized babies born spontaneously after normal labors. From these observations he concludes that eye injuries are not rare. He lays particular stress on asphyxiation as a cause of ocular hemorrhages.

Sharpe and MacLairé⁴ performed lumbar punctures on 500 newborn babies within 48 hours after birth and bloody or blood-tinged cerebrospinal fluid was present in 45 babies, or 9 per cent.

Sicherer⁵ examined 400 newborn infants within 24 hours after birth and discovered 65 retinal hemorrhages, of which 23 were bilateral, 14 in the right and 5 in the left eye.

Jacobs⁶ examined the eyegrounds of 157 infants within 24 hours after birth and found that 12½ per cent had retinal hemorrhages. He contends some of these traumatic retinal hemorrhages might result in permanent changes.

Eades⁷ made fundus examinations in 138 newborn babies and discovered that 17 per cent had retinal hemorrhages, 20 of them were delivered by the operative method.

Seissiger places the incidence of retinal hemorrhages at 19 per cent. Schleich⁸ found retinal hemorrhages in 32 per cent of newborn infants; 29 out of 49 cases had it in both eyes. Coburn's⁹ pathologic anatomic investigations in 37 infants, either stillborn or dying in the first 3 days, disclosed that 46 per cent had retinal hemorrhages. Yaeger, Woolf, Goldwasser, and Runge, also report a series of cases of retinal hemorrhages in newborn infants.

Fuchs¹⁰ states that in newborn infants retinal hemorrhages are often found as a result of disturbances of circulation occurring within a child's skull during birth. He quotes 21 to 32 per cent in the newborn occurring especially in protracted labors. Many so-called congenital amblyopias may be explained by them, *i. e.*, the extravasated blood is absorbed and leaves no trace, but the lacerated retinal tissues never again become entirely normal.

All investigators agree that these hemorrhages are fresh and could not be developed during intra-uterine life. Sicherer and Schleich find that hemorrhages from the finer retinal vessels are the result of a congestion, and that, therefore, etiologically they stand in some relation to the minute and larger cerebral hemorrhages, a view now fully confirmed. The thinness of the walls of the retinal blood vessels may be a

factor of importance in the origin of retinal hemorrhages in premature infants.

The marked variation in these percentage figures of retinal hemorrhages, head injuries, and amblyopia is probably due to the difference in time of the examinations. Most observers (Fuchs, Jacobs, Berger-Loewey) agree that small retinal hemorrhages either peripheral or in the region of the macula are speedily reabsorbed and become quickly invisible, without any influence on visual acuity in later life.

Jacobs¹¹ examined 23 newborn babies with retinal hemorrhages and found their eyegrounds normal 10 days postpartum. He was able to reexamine in a recent follow-up 13 of these children, now between age 3½ to 5½. He found no pathology in any of the eyegrounds. Defects in vision, if present, were evidently due to errors in refraction. Larger hemorrhages, especially if situated near the macula, may permanently affect the central vision. Such hemorrhages usually cause permanent structural changes or interfere with further normal structural development, which may result in amblyopia. This view is also confirmed by Berger-Loewey and Fuchs.

Cases have been reported in which the vision in the amblyopic eye (congenital amblyopia or amblyopia ex-anopsia) failed to improve by orthoptic treatment or glasses, yet after the good eye was enucleated (necessitated by some unfortunate accident) the amblyopic eye developed improved vision. This is best explained by my colleague, A. M. Ornstein, from a neurologic point of view, as follows:

The not infrequent observation of the return of vision in a previously amblyopic eye after the normal eye had been enucleated may be hypothetically explained somewhat as follows:

The two visual pathways under normal conditions permit light stimuli to pass through the primary optic centers to the visual cortex at a more or less equal level of (pressure), speaking in the sense of synaptic threshold resistance either at the thalamus, cortex, or both.

A defect in one visual pathway, interfering with the transmission of light stimuli on that side, will bring about a greater facilitation of function on the normal side producing in that way a rise in the synaptic threshold on the affected side with a relative lowering of the same on the good side. Under these conditions the normal visual pathway becomes the dominant system and will continue to stimulate the visual cortex at the expense of the defective one as long as it remains intact.

Removal of the normal eye forces the light impulses through the remaining defective visual system with resultant improvement of vision by the increase of pressure at the thalamic threshold and by concentration of psychovisual consciousness on the cortex of the formerly defective visual pathway which has been in more or less disuse during the predominance of the normal side.

Similar phenomena are observed in other nervous

pathways, *e. g.*, pain arising from bilateral lesions may be consciously perceived only as unilateral pain and it is not until after chordotomy is performed that the patient becomes aware of pain on the other side of the body. The side of the greater lesion had forced itself on consciousness to a much greater degree than the opposite side. The same is observed in the restraining of cortical function after the loss of one or the other hand in right- or left-handed persons with the eventual development of dexterity in the remaining limb. These examples may be multiplied on the same principle of predominance of a nervous pathway by facilitation of transmission of impulses at the almost total expense of the weaker system during the life of the normal pathways.

In the cases where the retinal hemorrhages produce an amblyopic eye, the affected eye will usually fall in a state of squint. The resulting poor vision causes a defect in the fusion faculty, the essential cause of squint. The great majority of amblyopic squinting eyes coming under our observation at the clinic have a much greater refractive error (axial hyperopia) in the squinting eye than the fixing eye, although often many amblyopic eyes are observed without a refractive error being present. In a small percentage of the cases observed, the amblyopic eye does not squint. In these cases the amblyopic eye usually has a much greater refractive error than the normal eye. If the amblyopic eye does not fall

into a state of squint, astigmatism is absent in a very large majority of the cases, hyperopia alone being present.

The explanation for the greater refractive error (axial hyperopia) usually present in the amblyopic eye may also be found in the same basic factors which produced the retinal hemorrhages.

Occasionally squint in the newborn may be due to extreme weakness of the muscle itself or to actual paralysis of the nerve (Worth). This is often caused by an intracranial hemorrhage or by traumatism to the nerve (the sixth cranial is most often affected), which is frequently overlooked at birth. In all probability, retinal hemorrhages are also present in these cases from the same cause.

The number of squint cases examined at the Bureau of Health Eye Clinic for Public and Parochial Schools were: 283 in 1922; 326 in 1923; 271 in 1924; 339 in 1925; 330 in 1926; 529 in 1927; 516 in 1928; 510 in 1929; 617 in 1930; 474 in 1931.

The following is an analysis of 298 squint and amblyopic cases examined at the Public and Parochial School Eye Dispensary of the Philadelphia Bureau of Health during school year, from Sept. 1, 1931, to June 30, 1932.

TABLE 1.—*Monolateral Squint*

<i>Convergent Squint</i>				<i>Divergent Squint</i>				<i>Grand Total</i>
	<i>O.D. sq. eye</i>	<i>O.S. sq. eye</i>	<i>Total</i>		<i>O.D. sq. eye</i>	<i>O.S. sq. eye</i>	<i>Total</i>	
Male	65	88	153	Male	3	9	12	165
Female	68	77	145	Female	10	9	19	164
White	100	130	230	White	10	12	22	252
Negro	33	35	68	Negro	3	6	9	77
Occasional squint			7	Occasional squint			1	8
Alternating squint			8	Alternating squint			6	14
Refractive Error: Hyperopia and compound hyperopia astigmatism except as otherwise indicated—				Myopia and compound myopic astigmatism except as otherwise indicated—				
Families with more than one case of squint.			16	Families with more than one case of squint			..	16
Congenital cataract			5	Congenital cataract			..	5
Congenital dislocated cataract			..	Congenital dislocated cataract ..			1	1
Optic atrophy			4	Optic atrophy			..	4
Nystagmus			10	Nystagmus			5	15
Hyperopia in fixing eye; myopia in squinting eye			3	Hyperopia in fixing eye; myopia in squinting eye			..	3
Myopia			16	Myopia			..	16
Mixed astigmatism			3	Mixed astigmatism			6	9
Corneal opacities			11	Corneal opacities			4	15
Choroiditis			5	Choroiditis			2	7
Hyperopia			..	Hyperopia			4	4
Definite history of dystocia in first-born child having an amblyopic squinting eye								52
Cases of amblyopia without squint								36
Cases of squint without amblyopia or pathology, but having a refractive error								11

The analysis of the cases having an amblyopic squinting eye during the last school year shows a definite history of dystocia in 52 first-born children. There are many other suggestive cases, and in my private practice the proportion of first-born children having an amblyopic squinting eye is much higher. This observation to my judgment is not a mere coincidence, but a definite etiologic factor.

The annual report of squint cases examined at our clinic shows that they are approximately the same number year after year. A study of the recent fundus literature confirms my belief that most cases of these so-called congenital ambly-

opia and amblyopia ex-anopsia are caused by retinal hemorrhages from head injuries at birth.

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MATCHMAKING*

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The matchmaker, European style, is not in vogue with us; adults contemplating matrimony use any discretion with which they may be blessed. But in another field, the placement of children, we have many matchmakers; most of the boarding foster home work is done by child-placing agencies, and the doctors join us in making many free and adoption placements. The child whose parents fail him is in a singularly defenseless position with so much of his happiness dependent on his "matchmaker." The responsibility assumed in making a placement is heavy for no child is dead-level average—we all have unbounded possibilities for better or for worse. Not every respectable home can give a child happiness, not every child will thrive in the same good home; the same child who is a feeding or a behavior problem in a tense situation suddenly blossoms in the contentment of the right home. A placement not wise for the child can hardly be of permanent satisfaction to foster parents. These truisms bear repeated consideration for each child placed for adoption runs the chance of becoming a spoiled unpleasant adult, a neurotic, or a contented responsible person; the home can make or break the child and the agent who makes the placement is partly responsible for the result.

The kind of thinking that may precede placement is exemplified in plans for our three-year-old Nancy. She comes of decent people, she has a sound body, average intelligence, beauty, vivacity, an affectionate nature, and unlimited charm. There is another side of the picture, too, seen in her wild hilarity at her first Christ-

mas, her terror at her first ride down the elevator, her frantic clinging to what she knows in the face of new situations; all natural reactions, but of most unusual strength. There was a day when a bit of bread went down her trachea; several anxious days followed before she would again eat at all, weeks before she dared eat without dread. Nancy is as much a person as if she were many times her size and age, and "normal health and intelligence" doesn't begin to describe her possibilities for becoming a sensitive, beautiful woman or an unhappy, tyrannical hysteric.

We might let the Scotts have Nancy; they would welcome the chance. They are attractive, educated young persons and childlessness is a punishment to them; each one, though offering a medical explanation of why the other is not able to have children, has underneath a guilty feeling that he might be to blame. The child will be at once an atonement for their own failure and a reminder of it. They plan that their child shall have social opportunities, shall go through college, be taught music, and travel. Now "average" brains are not "superior," and college would be a struggle; maybe the child will have musical ability, and her social possibilities are undoubted. We are most skeptical, however, of foster parents who are so intent on what they must give that they fail to see the child as a person whose ideas may differ from theirs. With so much importance attached to definite achievements, how great will be the disappointment at any one failure. It is as uncomfortable to be disappointing as to be disappointed. In spite of the material advantages

* Children's Aid Society of Pennsylvania.

should we offer Nancy's loveliness to such "drive" and emotional tension?

The Pauls are also applying for a little girl. Mrs. Paul herself answers the knock and presently her husband comes in through the back door. Like Mr. Scott, he is a college graduate, but he is doing scientific poultry raising. His quiet speech cannot hide his satisfaction in his home and his work. Mrs. Paul is humorous about the fact that being a school teacher is poor preparation for the varied activities of a country housewife, but she is never bored and not a bit too busy. She is taking a correspondence course in sewing and has just made a masquerade costume for a neighbor's child. This neighbor thinks it a risk to adopt a child; judging by one of the neighbor's three children, Mrs. Paul thinks it is also quite a risk to have your own. They do not make light of the bother, worry, and responsibility that will come with the child, but find these of small importance compared with the satisfaction of having her. The respect each of them has for himself and for the other, their seeing a child as a distinct person and not

a shadow of one of them, their liking for their way of living and interest in sharing it, create a sunny atmosphere in which one would expect a child to blossom.

When Nancy is placed and, after a year's experiment, is firmly attached to her new family by affection and they wish legal ties also, what is the basis of the Agency's consent? Her gain in weight, happy expression, and decreasing excitability: the pride with which the family tell of the latest exploit (tucking her starched skirts inside her bloomers because "Brudder Bobby tucks his shirt tails in his pants")? More fundamental is this—the inevitable difficulties have been bravely admitted and met with increasing patience, strength, and affection. It is these attitudes that seem the best guarantee that Nancy will get and will give permanent happiness.

Matchmaking is a fascinating job. Its goals in human happiness are tremendous; its responsibilities make it a full time job, demanding all the courage, ability, study, and effort of which one is capable.

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ASCARIS LUMBRICOIDES AS A CAUSE OF ACUTE INTESTINAL OBSTRUCTION AND INTUSSUSCEPTION

Report of a Case

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Ascaris lumbricoides is one of the commonest animal parasites invading the human organism. Its presence is ubiquitous, being more prevalent in the tropical and subtropical countries and the more indigent classes of the temperate climate. It may occur at any age but by far the commoner occurrences are in early childhood. The number of parasites may vary immensely but the majority of persons are usually invaded by only a few of the *Ascarides*.

The occasion for diagnosis is sometimes incidental. Symptoms leading to the suspicion of the presence of the round-worm are variable; convulsions are one of the most conspicuous complaints of early childhood, then in addition nervousness, insomnia, grinding of teeth, picking the nose, colicky abdominal pains, respiratory complaints, and cases of unexplained anemia and eosinophilia. It is noteworthy that many patients present no symptomatology, and in these cases small numbers of worms and ova have been isolated in the stool as an incidental finding, possibly concomitant to some other underlying

disease. The worms have been isolated from the small intestine in most instances, but cases have been recorded of invasion into the gall-bladder, bile, and hepatic ducts, pancreatic ducts, tubal cysts, urinary tract, and in the celomic cavity in cases of ulceration and perforation. Not infrequently acute pulmonary infections arise from the invasion of the parasite into the larynx and trachea, and here occasionally produces fatal asphyxia. Their presence may simulate appendiceal abscess if localized in the right iliac fossa and are to be borne in mind in the differential diagnosis of that condition. Cases of acute intestinal obstruction have been reported as the result of *Ascaris* and not infrequently accompanied by intussusception.

Probably the most exhaustive reports of collections of cases of intestinal obstruction caused by the parasite are those presented by Perrett and Simon in 1917 and by Levin and Porter in 1924. The former collected 14 cases from the literature and added another. Additional cases are as follows: 1 by McGlannon in 1916, 1 by

Levy in 1918, 1 by Heiser in 1918, 2 by Watson in 1920, 4 by Levin and Porter in 1924, 1 by Holland in 1925, 1 by Nanhorya in 1926, and 1 by Tisserand in 1929.

In the 22 cases, 2 presented intussusception, 3 perforation, 11 were fatal, 4 being diagnosed postmortem. Four of the patients were treated medically with vermifuge and enemas, and recovered. Sixteen of the above were treated by surgical intervention, of whom 7 died, a mortality of 44 per cent. The number of worms was variable, as few as 2 being isolated in fatal cases and as many as 899 being successfully removed surgically.

In the records of the Charity Hospital of New Orleans from 1906 to 1916, Perrett and Simon found but one case of round-worm as an etiologic factor in all the cases of acute intestinal obstruction or 112 to be exact. Likewise in an analysis of 23 cases of intussusception presented by McGlannon, 2 were caused by the *Ascaris*.

It is interesting that the round-worm is prevalent in certain localities and that its presence is manifested in a few cases of intestinal obstruction and intussusception. It is with this interest that the following case is reported.

A. B., an Italian female, age 6, entered the Miner's Hospital, Oct. 26, 1932, with a complaint of abdominal pain. The child was said to have had generalized abdominal cramp with no localization for the past 7 days. The bowels last moved 3 days before admission and then very meagerly. She had accompanying nausea and vomited several times in the 10 hours previous to admission. There was no previous history of expulsion of worms. The past history was irrelevant with the exception that she had a similar attack 3 months ago lasting 2 days. The family history is of no significance.

Physical examination presented a fairly well nourished and well developed Italian female child. Facies were suggestive of moderate shock. There was no abnormality of the skin. Temperature, 97.8° F., pulse 120, respirations, 22. There were no abnormalities of the eyes, ears, nose, or throat. The heart and lungs were normal. The abdomen was flaccid. Inspection revealed a large mass extending above the surface of the abdomen transversely in the locality of the transverse colon. On palpation the mass was solid and movable and quite tender. Peristalsis was hyperactive and sounds of the characteristic peristaltic rush were elicited. The genitalia and anus and extremities presented no findings of importance.

Laboratory findings were as follows: Urine, negative; blood, white cell count 6300 with 73 per cent polymorphonuclear leukocytes, 26 per cent lymphocytes, 1 per cent monocytes, and no eosinophiles.

A tentative diagnosis of acute intestinal obstruction with intussusception was made and an effort employed to reduce the intussusception manually. This was effective by standing the child on her hands and manipulating the large bowel toward the cecal end. When reinspected the mass had receded considerably, being perceptible only to palpation and had shifted to a longitudinal axis in the region of the ascending colon. An enema was ordered and was productive in eliminating

2 *Ascarides*. The child was then given 200 c.c. of normal saline intravenously and a course of calomel and santonin aa gr. $\frac{3}{4}$ followed by a saline purge. The enema was repeated in 6 hours and was productive of 12 more parasites. The vermifuge was repeated the following day and the total number of *Ascarides* increased to 43. By this time the child had lost the facies of shock, the mass had disappeared and abdominal pain ceased. The child was discharged 4 days after admission because the family was changing its residence; and we were informed that the day following discharge the child expelled 38 more round-worms. All the worms examined were from 4 to 15 inches in length.

This case presents a few obscurities. There had been no previous history of round-worm expulsion before her admission. It is believed that many cases of round-worm invasion causing symptoms are never seen by a physician and that their expulsion from catharsis brings relief to the symptoms. Moreover, this case was considered seriously for surgical intervention until the enema presented *Ascaris* to view. There had been no eosinophilia to lead one to suspect round-worm invasion and the intussusception was characteristic in physical findings, there being no explanation for the causal factor when first examined. For this reason it is believed that a thorough investigation be made for round-worm infestation in cases of intestinal obstruction in children and a trial enema be employed if necessary to produce a stool specimen for diagnosis. It is suggested that speculum diagnosis may be applicable in those cases in which the worm is lodged in the rectum.

It is notable to theorize on the mechanism of intussusception in such cases. McGlannon believes that trauma plays an important rôle in causing a localized spasticity and subsequent contraction of the intestine; the hyperactive peristalsis then produces the invagination. Corner corroborates him in the belief then that it is rather an active than a paralyzed bowel which is responsible for the resultant intussusception.

CONCLUSIONS

1. A case is presented of *Ascaris lumbricoides* causing intestinal obstruction and intussusception.

2. *Ascaris lumbricoides* is to be considered as an etiologic factor in some cases of acute intestinal obstruction and intussusception.

3. In view of the comment regarding the case reported, it is believed that a thorough investigation be employed in all cases of acute intestinal obstruction and intussusception in children, consisting of speculum examination of the rectum and a trial enema for stool production if necessary, being careful not to employ enemas in cases of intussusception before reduction. This investigation is utilized with the hope that round-worm may be diagnosed as a factor in a few cases.

AN IMPROVISED TONSILLECTOMY CAMP

FORNEY P. GEORGE, M.D., HARRISBURG

Doctors are always doing "their bit" in one way or another and when it was learned that 163 children of Middletown, Pa., and vicinity were in need of having their tonsils removed and that the hospitals could not accommodate them, a group of rhinolaryngologists agreed to contribute their services. The Harrisburg Hospital doing 6 to 8 tonsillectomies 3 times a week, and the Polyclinic Hospital, Harrisburg, doing the same were scheduled far into the future. Something had to be done to take care of these children. The hospitals with their multiple other activities could not arrange their schedules to do so. The Welfare Committee of the Mothers' Congress of Middletown, Pa., became interested, and plans were finally consummated to carry out the project at the Christmas Seal Health Camp, Middletown, as a temporary hospital. The camp is equipped with approximately 80 beds for children, which afforded ample ward space.

Many problems had to be solved. All the children who during the previous year or so had been recommended for tonsillectomies, were examined to be certain there was a need for operation. This was done by several physicians at the office of the community nurse of Middletown. The community nurse worked unceasingly to make appointments for examining the children and also in arranging for their transportation to and from the camp.

One large room of the camp was turned into an operating room and two tables which had been used as examining tables at the Health Camp were turned into operating tables. As the lighting system of the camp is supplied by a private Delco system, which affords only 32-volt current, the ordinary headlight used for tonsil operations could not be used. Head mirrors and direct lighting had to take its place.

In giving the ether vapor during the operative procedure, electric motors, such as are used in the modern hospital operating room, could not be used. Harrisburg was searched for a motor that could be used on the low voltage current but none could be procured. A system was arranged whereby air was provided by a hand bulb. An attendant kept working the hand bulb during each operation, forcing the air through an improvised ether bottle and thence to the ordinary ether tip and the patient's mouth. This primitive method worked admirably well and the anesthetics given were excellent.

The problem of suction to keep the pharynx clear during the operative procedure, again lack-

ing electric motor power, was solved by using the old-fashioned water suction pump. A small apparatus was attached to a faucet and from this, tubing was carried to the ceiling and across to the operating table. This, too, was very satisfactory.

Sterilized linens and operating material were supplied by the Polyclinic Hospital and the Harrisburg Hospital in turn and each of these hospitals sent nurses and attendants to the camp at different times. The coöperation of the two Harrisburg hospitals was all that could be desired.

The Mothers' Congress of Middletown engaged a number of nurses and women to take care of the children in the wards. The question of food also was taken care of by the group who arranged for feeding the children operated upon, the doctors, nurses, and attendants who gave their services at the camp.

One hundred sixty-three operations were performed during a period of 7 operating days, work being started on September 7 and the camp closed on September 17. The number of operations each day varied from 17 to 34.

The children were brought to the camp and taken back to their homes by the community ambulance of Middletown. They were admitted the evening prior to operation and returned to their homes the morning following the tonsillectomy.

Despite the primitive methods used and the large number of operations performed, there were very few complications. Only one patient had to be returned to the operating room for re-anesthetization and suturing. One of the children who did not do well under the anesthesia and who stopped breathing for an alarming period of time, was removed from the operating table after only one tonsil had been removed. This child will be cared for at a later date at one of the Harrisburg hospitals.

The ages of the children operated upon varied from 5 to 18 years, the majority being between the ages of 7 and 12.

The follow-up care of this series of patients was also taken care of and each child was examined thoroughly a week following the operation, and at further intervals when considered necessary. Eleven operators with 10 assistants, and 23 nurses, constituted the medical personnel.

ALBUMINURIA*†

Its Clinical Significance When Occurring in Otherwise Healthy Young Men

NELSON J. BURDEN, M.D., PHILADELPHIA

Albuminuria is one of the most frequent abnormalities found in otherwise healthy young men. The incidence is usually placed at about 5 per cent. In the majority of cases albumin is found only on the first examination. Approximately 10 per cent show persistent albuminuria, and less than one-half of these are apparently nephritics. The tests most frequently used are the nitric acid ring test and the heat and acetic acid test, the latter perhaps being more sensitive and more frequently used. The quantity of albumin varies from a faint trace to a heavy cloud.

These albuminurias occurring in young men have been designated by various observers as: Cyclic, functional, orthostatic, transient, essential, and by the more inclusive term, benign albuminurias. A variety of explanations have been offered for benign albuminurias. The albuminurias following exercise, severe mental strain, prolonged exposure to cold, and possibly after ingestion of excessive quantities of protein, particularly egg albumin, these albuminurias together with the ones accompanying disease or fever are readily dismissed. If albuminuria is found under normal conditions in an otherwise healthy young adult male it is more difficult to explain.

ETIOLOGY

Lee, in a study of 5000 cases, placed the majority of them in the poor posture group (orthostatic). He also discovered that albuminuria was relatively rare in the best athletes; finding it in less than 1 per cent of the candidates for varsity sports. W. Rieser and S. L. Rieser¹ offered an interesting explanation for orthostatic albuminuria. They attributed the condition "to renal stasis caused by compression of the left renal vein in arterial pincers composed of the aorta and mesenteric artery. These arterial pincers becoming operative when the aorta is projected forward by a lordosis or when the mesenteric artery is pulled to tautness by the visceroptotic tug from the mesocolon." Their patients with orthostatic albuminuria recovered when given proper supports to correct abdominal visceroptosis. Some reported 11 cases of orthostatic albuminuria in all of which ureteral catheterization showed a normally secreting right

kidney and an albuminuric left kidney. Jehl demonstrated that all orthostatic individuals showed a lordosis in the upright posture and mentioned this as the direct cause of albuminuria. The above observations appear to account for postural or orthostatic albuminuria. On the contrary Lewison, Freilich, and Rogius² in a study of 25 crippled children and young adults with lordosis found no special tendency to albuminuria in them, and in those showing albuminuria correction of the lordosis by orthopedic appliances did not influence the albuminuria. They concluded that "exaggerated lordosis is an unimportant factor in the production of orthostatic albuminuria." In Palmer's group of albuminurias, posture did not appear to be a significant factor.

It is generally agreed that a certain constitutional type is frequently found in these benign albuminurias. They are said to be of an asthenic type, that fatigues easily, especially by the act of standing, and are subject to syncopal attacks, cardiac palpitation, headaches, and various signs of vasomotor instability. They present a general relaxation and atonia of muscular and ligamentous structures, both skeletal and visceral, which are manifest in the long thorax, with dropped heart and low diaphragm, the scaphoid abdomen, and the marked visceroptosis. After a review of the literature on benign albuminuria, Bauer concluded that there was no specific and characteristic anomaly that resulted in benign albuminuria.

So far the most likely explanation for the condition is some alteration of the renal capillaries that makes them more permeable to proteins. Whether this change is the result of a constitutional disturbance or a local nephritic condition is debatable. If a constitutional type is responsible for albuminuria the condition is easily explained on the basis of a vasomotor instability.

Erlanger and Hooker³ in a study of blood pressure showed that "when the standing posture is assumed from the recumbent or sitting posture the blood pressure may either rise or fall but the pulse pressure is always diminished and the pulse rate increased. The pulse pressure and the volume changes (arm and hand) produced by the beat of the heart vary directly." In the albuminuric they studied they found a smaller pulse pressure than normal and also a smaller rise of the minimum pressure upon standing.

* From the Student Health Service, University of Pennsylvania.

† Read before the meeting of the Pennsylvania-New Jersey Section of the American Student Health Association, Philadelphia, May 27, 1933.

Since the pulse pressure increased gradually throughout the day and the benign albuminuric usually shows a decrease in the amount of albumin later in the day, it appears that these circulatory changes are more marked in the albuminuric or that the epithelial cells of his kidney are less able to stand certain circulatory conditions as associated with diminution of the pulse pressure. Mason and Erikson after a similar study concluded that a low pulse pressure was the cause of albuminuria. Hellebrandt,⁴ in her studies on albuminuria following exercise found that "after exercise the pulse pressure fell below normal and albuminuria usually occurred. The greatest amount of albumin was found to occur during the period of maximal reduction in the amplitude of pulse pressure. The pulse pressure fall in the cases with postexercise albuminuria was 90.1 per cent greater in depth and was maintained 41.8 per cent longer than the pulse pressure fall in the cases without albumin following physical exertion." Hellebrandt suggests an explanation for these results in the theory that "strenuous exercise shunts the blood to the muscles and skin so that the renal cells are more or less asphyxiated and there is an abnormal accumulation of acids in the renal tissue which alters its permeability to the blood proteins and albumin appears in the urine."

Richards and Schmidt,⁵ in their study of glomerular circulation in the frog's kidney found that "the number of glomeruli through which the blood flows and hence which function at any one time may be a fraction only of the total number of glomeruli in the kidney. This fraction is susceptible of increase by the various vasodilator agencies and of decrease by various vasoconstrictor agencies. Also that the number of capillary pathways within a single glomerulus is variable in analogous manner." They frequently observed intermittence of the glomerular circulation and were able to produce it by electrical stimulation of sympathetic fibers to the kidney and by slow intravenous injection of adrenalin. Wearn and Richards, in examining glomerular fluid from frog's kidneys found what they interpreted as a leakage of plasma through the capillaries of glomeruli in which circulation was sluggish. It is known that transient interruption of the renal blood flow is followed by albuminuria and apparently the albuminuria is of glomerular origin. Obviously then the glomerular capillaries lose their impermeability to plasma protein as the result of cessation of blood flow. Richards asked: If only part of the total number of glomeruli of the kidney is sufficient to take care of the glomerular elimination under ordinary

circumstances, how does the remaining fraction escape damage and why does not the urine eliminated at the beginning of a profuse diuresis contain albumin? The explanation suggested was that the diffusion of oxygen from areas in which circulation is normal to those in which the circulation is interrupted may establish an equilibrium.

From Starr's observations it appears that the albuminuria occurring in those with vasomotor instability is due to changes in adrenalin secretion resulting from fear, excitement, *etc.* Starr produced albuminuria in rabbits by injections of adrenalin and also showed that cats eliminated albumin after having been frightened or enraged.

On the other hand, temporary unbalance in the acid-base equilibrium as due to increased acidity following exercise may alter the permeability of the renal tissue resulting in albuminuria. Hellebrandt, Brogdon, and Kelso demonstrated that albuminuria occurring during exercise or shortly after its cessation bears etiologic relationship to the speed of doing work, occurring only after violent and rapid muscular exertion. With this in mind the albumin may be explained as due to changes in the blood which in turn effect the permeability of the renal capillaries.

A consideration of the various theories of renal physiology and function leads to the belief that mechanical filtration of a protein-free fluid occurs through the glomeruli and that this filtrate is further elaborated into urine by the action of the tubules through a process either of reabsorption alone or of reabsorption plus active secretion. With alteration or destruction of a glomerulus there is probably eventually some destruction of its corresponding tubule as well. The result is a nephrosis. Bing confirmed the assumption that in albuminuria a filtration of serum proteins occurs through degenerated glomeruli, probably without elimination in the tubuli. Cushny emphasizes the importance of the glomerular capsule and believes that in albuminuria the primary lesion may be in the capsule.

Despite the evidence at hand the etiology of these benign albuminurias is still very much in the dark.

PROGNOSIS

Opinions differ as to the significance of benign albuminuria. Fishberg considers them harmless in their influence on the duration of life and the subsequent state of the kidneys. Life insurance companies accept persons with orthostatic albuminuria without increased rates.

Maclean, in a study of the incidence of albumin and casts in British soldiers during training, made some interesting observations in the 60,000 men examined. He found the usual 5 per cent of albuminurias. He discovered further that training had no influence whatever either in increasing the number of albuminurias or in causing existing albuminurias to become more marked, nor did the incidence of casts, which was about 1.5 per cent, increase with length of training. Out of the 161 patients returned as nephritics or because of albuminuria only 28 suffered from albuminuria just before going to the front. Maclean concluded that previous albuminuria plays little or no part in the etiology of war nephritis.

Regardless of this rather general agreement to a favorable prognosis in albuminuria in young men we are warned to be conservative in our judgment of the significance of the condition.

Dublin, in a study of the later life history of about 5200 persons who were rejected for insurance because of the single finding of albumin or albumin with casts, gathered some interesting information. The first group studied consisted of 2073 persons who showed albumin on several examinations in amounts exceeding the slightest trace. No casts were found on microscopic examination. These persons were followed for a period of only 3 to 13 years (an average of 6 years), and in this short time their actual mortality (161) was 183 per cent of what might have been expected in a group of insured persons at the same ages who were presumably free from serious defects. The excessive mortality was manifest at virtually every attained age period, but was most marked at the ages 35 to 44 when the actual deaths were 267 per cent of the expected mortality. At the ages 15 to 24 there was a mortality of 145 per cent of the expected. In this same age group of 15 to 24 those with only a faint trace of albumin appeared to have a better mortality than the expected (73 per cent). The increased mortality in the whole group showing albumin was largely due to a few diseases and conditions. Bright's disease led with a rate of 306.3 per 100,000 as compared with the usual rate under 40, the rate varied somewhat with the quantity of albumin found, but even in those with a faint trace the death rate was 222 per 100,000. The next most frequent cause of death was organic heart disease. The rate was 74.5 per 100,000 which was 50 per cent higher than the expected rate. The third disease accounting for the increased death rate in albuminurias was pulmonary tuberculosis. Here the rate was 284.4 per 100,000 or about 3 times as

high as the expected rate. The tuberculosis rate was especially high in the ages 15 to 24 showing a trace of albumin. Of the 8 deaths in this group, 5 were from tuberculosis, a rate of 541 per 100,000. Dublin stressed the importance of the finding of a trace or more of albumin with and without casts, and the frequent existence of tuberculosis in many cases. In the entire group of albuminurias, with and without casts, in the age period of 15 to 24 there were 20 deaths, and 7 of these were from tuberculosis, a rate of 651 per 100,000. Fishberg states that in France the view is quite widely held that benign albuminuria is often an indication of tuberculosis and the condition termed pretuberculous albuminuria.

Diehl in a study of the health records of 20,000 young men at the University of Minnesota found significant relationships between albuminuria and weight, pulse rate, a history of rheumatism, frequent colds, and a family history of kidney disease.

SURVEY AT UNIVERSITY OF PENNSYLVANIA

An analysis was made of the physical examination records of male students at the University of Pennsylvania. The ages were between 16 and 30, only 3 being over the age of 30. At least 60 per cent of the examinations were on entering freshmen, most of whom were apprehensive and nervous about entering the University, and in many instances having a complete physical examination for the first time.

Of the 3642 students on whom a complete physical examination with urinalysis was done 949, or 26 per cent, had albuminuria. The heat and acetic acid test was used because it is the most delicate generally used test for albumin. It is possible by this test to detect albuminuria in at least 10 per cent more cases than by any other test. This may account in part for the considerably higher rate for albuminuria than the usual 5 per cent finding of most investigators who used the other means for detecting albuminuria.

In 69.3 per cent of the cases albumin was found only in one examination; 24.3 per cent had an occasional albuminuria, and only 6.4 per cent showed a persistent albuminuria. The amount of albumin varied from a faint trace to a heavy cloud. Taking the most marked reaction for each student 17 per cent had a faint trace, 64.1 per cent a trace or 1 plus, 16.6 per cent a marked trace or 2 plus, 1.4 per cent a light cloud or 3 plus, and 6.9 per cent a heavy cloud or 4 plus. One per cent of those with persistent albuminuria had occasional casts and red blood cells, and only 2 students in the entire

group of albuminurics could definitely be called nephritics.

The albuminuric students were compared as a group with those in whom no albumin was found. The relation of previous medical history was first considered. In the albuminuric group, 11.1 per cent gave a record of having had scarlet fever as compared with 15.4 per cent in the no albumin group; 2.7 per cent of the albuminurics previously had rheumatic fever; only 1.7 per cent of the no albumin group gave the same record. The history of frequent head colds was evenly distributed and only 8 per cent of those with persistent albuminuria complained of frequent head colds. The weight factor was next studied. In the albuminuric group 10.1 per cent were 15 or more per cent overweight as compared with 11.2 per cent in the no albumin group; 13.7 per cent of the albuminurics were 15 or more per cent underweight; while only 8.7 per cent of the no albumin group were in this class. This finding of a greater percentage of underweights among the albuminurics is reported by most investigators. Whether the undernourished condition is part of a so-called "constitutional type" leading to albuminuria or whether it is a result of loss of blood proteins is debatable.

The pulse rates in the 2 groups were next compared. Among those with albuminuria 17.9 per cent had a pulse rate of 90 or over as compared with 14 per cent in the no albumin group. Thirteen per cent of the albuminurics had a pulse rate less than 70 and the same condition was found in 14.7 per cent of those without albumin. It is evident from these figures that the tendency to rapid pulse in the albuminuric is very slight. Nevertheless this is usually mentioned to support the theory of "constitutional type" in albuminurics.

Blood pressure readings in the 2 groups were studied. Seventeen and three tenths per cent of the albuminurics had a systolic pressure over 130; 6.6 per cent under 110; while 19.6 per cent of those in the no albumin group had a systolic reading over 130; and 8.4 per cent under 110. In the albuminuric group, 13.4 per cent had a diastolic pressure over 80 and 16.6 per cent under 70; compared with 17.5 per cent over 80 and 21.3 per cent under 70 in the no albumin group. Contrary to the general opinion the albuminurics on the average showed a lower systolic and a higher diastolic blood pressure than those without albuminuria. From this it is evident the average pulse pressure is lower in

the albumin group than in the no albumin group. This is another loss to the support of a "constitutional type" with lack of vascular tone generally associated with albuminurics.

The parental medical history was examined. In the albuminuric group there was a history of cardiovascular disease in 1 of the parents in 7 per cent of the students and of kidney disease in 4 per cent. In the no albumin group the percentages were 4.9 for cardiovascular disease and 1.9 for kidney disease. It was interesting to observe that in both groups kidney disease was twice as frequent in the father as in the mother, while high blood pressure and cardiac disease was evenly distributed. The great increase of kidney disease in the parents of students with albuminuria may be very important as indicating a tendency or diathesis on the part of the student leading to future renal breakdown.

CONCLUSIONS

1. Albuminuria as detectable by heat and acetic acid, which is the usual test for albumin, is far more frequent than is generally supposed, occurring in about 25 per cent of young male adults.
2. There is at present no satisfactory explanation for the condition.
3. No significant relationship is demonstrable between albuminuria and previous medical history.
4. The finding of a greater percentage of underweights among the albuminurics is confirmed.
5. Pulse pressure, contrary to general opinion, does not appear to influence albuminuria.
6. Proved nephritis is very rare in young adult males. The frequency is probably less than one per cent.
7. Albuminuria is an important finding and as a subject deserves further investigation as shown by the after life histories and family records of the patients.

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TREATMENT OF PULMONARY INFECTIONS*

With Intratracheal Instillations of Iodized Oil

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The past few years have witnessed a notable increase in the incidence of pulmonary infections, especially bronchiectasis and lung abscess. The factors responsible are varied, though infection in the upper respiratory tract has contributed immensely. Chronic sinus infections often initiate and even more frequently perpetuate an infection deep in the lower bronchi and bronchioles. This has been emphasized by various writers since Rist first stressed this relationship in 1916.

Ochsner found bronchial dilatation in more than 90 per cent of young university students suffering from acute or chronic bronchitis. It is safe to assume that in a sizable majority, sinus infection was either a contributing or associated factor. In our own experience we have demonstrated involvement of one or more sinuses in most cases of chronic bronchiectasis.

Until very recently the treatment of pulmonary suppuration was very unsatisfactory. Many stimulating expectorant drugs have been used with but little permanent relief. Postural drainage, though of great help in the large saccular types of infection and dilatation in lower lobe bronchi, is of questionable value in smaller and upper lobe lesions. The invention of the bronchoscope marked a great step forward not only in the diagnosis, but later in the treatment of these conditions. Despite its widespread use, it still remains, however, an instrument to be used only by those specially trained and is hardly of universal applicability.

The delineation of the tracheobronchial tree by means of iodized oil as a contrast medium was introduced by Sicard and Forestier a decade ago. This procedure, used at first only for diagnostic purposes, was soon recognized as having potential curative effect as many patients were noticeably improved after the diagnostic instillation of the oil. Beneficial effects were noted by such eminent observers as Sgalitzer, Pritchard, Whyte and Gordon, Lockwood, and others. The drawback to bronchoscopic instillation was solved by Ochsner who first described a "passive" technique in 1926. Since then this method has been given extensive application throughout the world in various clinics though not as much as its relative simplicity would seem to warrant.

We have used the direct or passive method of bronchography with either lipiodol or canpidol

as the contrast medium in a large series of cases, a few of which are detailed here.

There were 25 patients in this group, 14 of whom had bronchiectasis, 3 pulmonary suppuration (2 of these were localized in the base and 1 in the apex of the lung), and 8 of subacute bronchitis which had persisted for a number of weeks and was resistant to the usual treatment of rest and expectorant drugs. It is of interest to note that the patients with bronchiectasis and pulmonary suppuration had all had diagnostic bronchoscopic examinations, followed by bronchoscopic lavage and autogenous vaccines. This had been pursued over periods varying from 6 months to 3 years with no apparent improvement. The patients continued to cough, expectorate, lose weight, and complain of fever and chills. They were rapidly losing ground, and were physically and mentally depressed. Treatment with iodized oil was then instituted, the value of which is illustrated in the following 2 cases.

CASE 1.—A. R., Italian, age 43, trombonist in a band, had a negative past history except for frequent sore throats. In September, 1929, a tonsillectomy was performed under ether anesthesia. Several days after the operation he developed a cough, and shortly thereafter, fever and chills. Examination revealed the signs of a localized lesion at the right base. A provisional diagnosis of pneumonia was made. After 3 or 4 days he developed a foul smelling expectoration and a diagnosis of pulmonary abscess was made. On Nov. 22, 1929, the roentgen-ray report read: "There is a suppurative pneumonitis associated with a small lung abscess at the right root. There is also some increased fibrosis in the basal zone. Otherwise the lung markings are normal." On Nov. 27, 1929, he was bronchoscoped and pus was found to be draining from the right lower lobe bronchus. A vaccine was prepared from the pus. He was bronchoscoped 11 times from this date up to May 29, 1930, with no improvement. The cough continued with chills and fever and a great deal of foul expectoration, so much so, that it was objectionable to himself and family. On March 18, 1930, the roentgenologist reported "There is an increased density of the abscess at the right root. On the other hand, there is a little more aëration in the lung fields surrounding it. This indicates a better localization of the process. At the same time there is an increase in the size of the abscess." The patient refused to continue his bronchoscopic drainage after May 29, 1930, at which time his symptoms were as marked as on his previous visits. Sputum examinations at this time were negative for tubercle bacilli in 12 specimens, negative for spirochetes; many pneumococci, staphylococci, and micrococci catarrhalis were found. The blood Wassermann test was negative; and blood count essentially normal. The blood sedimentation index was 17 mm. in 60 min.

* From Medical Service B, Jewish Hospital Philadelphia.

At this time the introduction of iodized oil was begun. After the third weekly instillation the sputum began to decrease in amount, the odor became less offensive, and the patient generally began to feel better. On Nov. 1, 1930, roentgen-ray report was: "There is considerable density to the shadows at the right root associated with bronchiectasis. There is also more fibrosis present than on previous examinations." The oil instillations were continued once a week for 3 months, then every 2 weeks for 2 months, and once a month for 3 months. After 6 months of treatment the cough had disappeared entirely and he was able to return to his work. He is today in splendid physical condition and has not had a "cold" in the past year. (See figs. 1 and 2.)

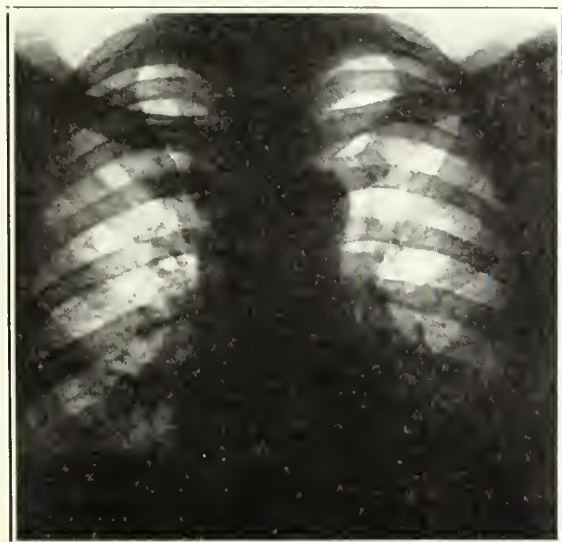


FIG. 1. Pulmonary suppuration at left base as of Aug. 12, 1931.

CASE 2.—A. B., Italian, age 53, tailor, gave a history in August, 1931, of having caught cold 9 weeks previously. Chief complaint was chills, fever, marked cough, and profuse expectoration of a foul smelling pus. The roentgen-ray report on Aug. 12, 1931, stated "There are signs at the left base of pulmonary suppuration, either abscess or bronchiectasis." Following this diagnosis he was bronchoscoped twice with no improvement. He continued to expectorate a great deal of pus which was frequently blood tinged. In the latter part of September, 1931, he refused to continue this treatment and was referred to us. Following preliminary study, 10 c.c. of iodized oil was introduced into his left bronchus. This was repeated at weekly intervals, but there was no improvement for about 6 weeks, when the patient noticed that the fever was disappearing; the cough lessened, and the expectoration diminished. In all he received 14 instillations and finally, after about 4 to 5 months, the symptoms cleared up entirely; the patient gained in weight and generally acted the same as previous to his illness. Roentgen report on June 8, 1932, stated: "The lung shadows are within normal limits with the exception of slight pleural thickening in the left base. At the present time there is no definite evidence of bronchiectasis." On Dec. 16, 1932, the patient was seen and stated that he had been working steadily for 6 months and that he felt fine. (See figs. 3 and 4.)

Technic:—The patient is seated directly in front of the examiner, as for an ordinary laryngoscopic inspection. He thoroughly rinses his mouth and throat with

normal salt solution. An anesthetic lozenge is given, which is allowed to dissolve in the mouth. A solution of 1:500 nupercaine or 1 per cent novocain is sprayed into the pharynx until there is complete anesthesia of the pharynx and posterior third of the tongue; and the cough, gag, and swallowing reflexes are abolished. A 10 c.c. syringe with an ordinary metal eustachian curved catheter is filled with the anesthetic solution and introduced into the back of the mouth. The patient is told to breathe deeply and to say "Ah." The solution is allowed to drop slowly, drop by drop, over the base of the tongue. As it drops into the larynx a coughing spell usually occurs and part of the contents of the bronchial tree is expectorated. This is continued until



FIG. 2. Shows marked improvement after having received lipiodol instillations. Plate made on June 8, 1932.

the bronchial cough reflex is abolished and expectoration ceases. The iodized solution, which has in the meanwhile been warmed, is then drawn into the syringe and allowed to drop into the larynx through the catheter, the patient bending to the side in which most of the oil is desired, although part of the oil will go on the other side. During the entire time it is wise to talk to the patient and encourage him to breathe deeply and to avoid coughing as much as possible. After the oil is introduced, the patient lies down for a few minutes and is then fluoroscoped. The procedure should consume about 30 minutes, unless the patient is very nervous.

In our group of 25 cases patients were injected from 2 to 15 times, in all a total of 142 times; an average of less than 7 times to a patient.

DISCUSSION

In reviewing these cases and the results obtained, we found that in the cases of bronchiectasis there was a definite improvement, and although the patients continued to cough at times, it was not so harassing and they did not catch "cold" so frequently. In the 3 cases of pulmonary suppuration, the 2 that were localized to the base were entirely cured; that is, the patients stopped coughing, the general condition im-

proved, they put on weight and were able to return to their occupation. The case with apical involvement showed no improvement as it was impossible to get any of the solution into the cavity.



FIG. 3. Plate made on Nov. 22, 1929, shows a suppurative pneumonitis associated with a small lung abscess at right root; also some increased fibrosis in the basal zone.

The 8 cases of subacute bronchitis which had persisted over a period of 4 to 6 weeks, cleared up in 2 to 3 treatments. Each patient was referred to the rhinologist for treatment, paying particular attention to the sinuses, believing that the original focus of infection in the majority of cases is usually in some part of the nose and throat.

Although unusually good results were obtained in these two cases, we are not offering this procedure as a panacea, but as an adjunct to treatment such as rest, climatic treatment, and bronchoscopic drainage, with the hope that it will materially benefit that large group of patients who continually cough with no improvement. At the present time we are studying the flora of the bronchial tree both before and after the administration of the iodized solution, the result of which will be published.

No untoward effects were encountered from the proper administration of the oil. Only two patients had signs of mild iodism which were undoubtedly due to some of the oil being swallowed after coughing. In order to obviate this the patient is instructed not to swallow any of the saliva or bronchial secretion as long as the odor or taste of the oil persists. This precaution will minimize the possibility of iodism which has been

reported by several observers. Furthermore, each patient is examined under the fluoroscope immediately after the instillation.

It might be well to mention also that in patients who have had tonsillectomies the production of anesthesia is slower than in the nontonsillectomized. This is probably due to the fibrous scar tissue in the posterior pharyngeal wall.

CONCLUSIONS

(1) Solutions of iodized oil are of material benefit in pulmonary suppuration and simple bronchitis.

(2) It is of definite value in the treatment of bronchiectasis.

(3) The procedure, as described, is simple and within the scope and ability of all practitioners and the patient is not subjected to the frequent use of the bronchoscope.

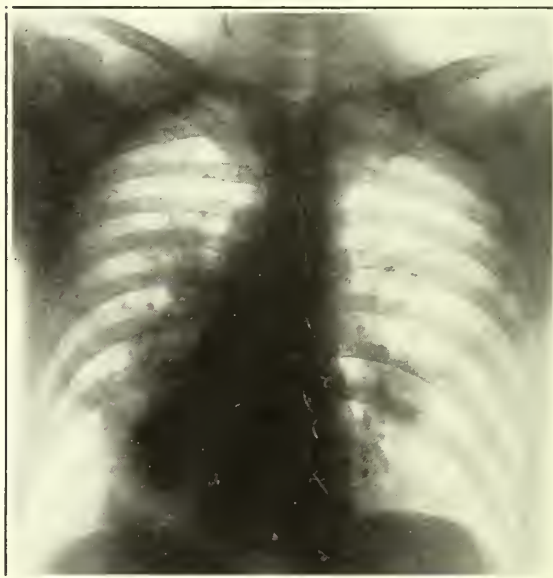


FIG. 4. Shows normal lung fields except for residual fibrosis and entire disappearance of shadows of the suppurative process. Plate made, Dec. 7, 1932.

(4) Close coöperation is advised between the rhinolaryngologist and the internist because bronchopulmonary suppurations frequently originate in the upper respiratory passages.

(5) It will not be of material help in patients in whom there is extensive bronchial and pulmonary destruction.

YELLOW ATROPHY OF THE LIVER*†

A Review

ALLEN G. BECKLEY, M.D., AND FRANK W. KONZELMANN, M.D., PHILADELPHIA

Yellow atrophy of the liver is not a rare disease. According to the report of the U. S. Bureau of Vital Statistics in 1927, it was responsible for 486 deaths and in 1928, 553; in 1929, 561, and in 1930, 590 deaths. The death rates per 100,000 population were 0.4, 0.5, 0.5, 0.5, respectively. It is interesting to note that it is more common than Addison's disease and almost as frequent as the combined diseases of the pancreas, as a cause of death. It is not necessarily a fatal disease. There are a number of cases on record which were erroneously diagnosed obstructive jaundice. Laparotomy revealed yellow atrophy of the liver. Some of these patients recovered. In a review of the literature by Rabinowitz, a number of cases were listed that showed clinical evidence of acute yellow atrophy. They recovered under treatment.

We consider yellow atrophy a clinical entity in which all the organs of the body are affected, but the liver is the most severely damaged. There is sudden death of the cell, as evidenced by karyolysis. Disintegration of the cytoplasm follows with extraordinary rapidity. It is no doubt produced by a toxin, but a careful study of the many reports of this disease reveals that some preëxisting state of the organ or the individual must either exaggerate the virulence of the toxin or render the liver more vulnerable.

ETIOLOGY

It has been stated above that there is without a doubt a powerful poison responsible for the destruction of the liver cells, and that this toxic substance is not alone responsible but is also evident from the cases reported. It seems necessary that the liver be made more vulnerable by preëxisting liver disease or systemic disturbance.

AGE

Yellow atrophy is more common between the ages of 20 and 30. Few cases have occurred in patients after 40. A number have been reported in the young, and several times the disease has been found in the newborn.

SEX

Women are more frequently victims than men.

GEOGRAPHICAL DISTRIBUTION

There is no apparent location in which the disease is more prominent, unless it be in Germany.

Alcohol: There is no evidence that alcohol is a cause of yellow atrophy.

Cinchophen: Cinchophen was first introduced in 1908 by Nicolaier and Dohrn for the treatment of gout, for it was supposed to increase the elimination of uric acid. It has been pointed out that while frequently the increased excretion of uric acid does occur, the source is not entirely that deposited in the tissues but some comes from the destruction of tissue nuclei by the cinchophen. It is no longer used for this purpose but chiefly as an analgesic for the pains of arthritis and gout. Corson White studied a series of 22 cases over a period of 15 to 28 weeks, during which cinchophen was administered twice daily. She performed laboratory tests and examined the patients at frequent intervals, searching for evidence of hepatic injury. She believes that under these circumstances cinchophen is not dangerous, especially if patients are selected from a group who do not have a history of previous liver disease. She calls attention to the fact that over 100,000 pounds of cinchophen or its derivatives are sold in the United States in a year. With the death rate from acute yellow atrophy from all causes at 0.5 per 100,000 there must be many taking it with impunity. Further, S. S. Lichtman has recently suggested cinchophen as a test for liver function. He has tried to prove that in small doses it is harmless even in the existence of liver disease.

Trichlorethane, trinitrotoluene, and dinitrobenzol, and picric acid have been shown to be distinctly toxic for workers in airplane or munitions' factories, by Spilsbury and Turnbull. Poisoning apparently occurs by inhalation of fumes, or absorption from skin (trinitrotoluene). A number of cases of jaundice developed in these workers, some of whom died, and at necropsy small shrunken livers were found.

Chloroform and phosphorus are capable of producing destruction of the liver cell. The type of lesion, however, is different; it is a fatty degeneration. The symptomatology is also different. We do not believe that these two substances play an important rôle in the production of real acute yellow atrophy.

Arsphenamine and neoarsphenamine: Kolmer and Lucke have shown that arsphenamine in small

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† From the Laboratories and Department of Medicine, Temple University School of Medicine, Philadelphia, Pa.

repeated therapeutic doses produces mild degeneration (inconspicuous) change in the livers of experimental animals. Massive doses (10 times therapeutic dose) caused a degenerative lesion in all organs. In the liver there occurred a lesion similar to yellow atrophy. Kolmer and Lucke found neoarsphenamine decidedly less injurious.

Male fern: *Aspidium* is responsible for at least one death in which the liver at necropsy showed acute yellow atrophy. This patient also had syphilis (Meier).

Infection: Many investigators have tried to demonstrate a microorganism in cases of acute yellow atrophy. So far, nothing conclusive has come from the necropsy studies.

Epidemic jaundice: Acute yellow atrophy of the liver has occurred in epidemics in Germany and in United States. The cause has not been apparent, for these epidemics were not characterized by the finding of spirochetes in the liver (Symmers).

Mushroom: Certain types of mushroom have produced fatty changes and necrosis in the liver similar to but not identical with yellow atrophy.

Syphilis: According to Rolleston, 0.3 per cent of all cases of syphilis are complicated by benign forms of jaundice. But viewed from another angle, quoting Roman, 700 cases of acute or sub-acute yellow atrophy were reported before 1927, of these 130 to 150 were combined with syphilis. It does not seem from a study of cases described in the literature that syphilis alone produces yellow atrophy but syphilis of the liver plus any poison such as arsphenamine, chloroform, phosphorus, cinchophen, or arsenic may result in some one of the degenerative lesions of the liver. Roman, quoting the reports of the Mayo Clinic, writes that they found jaundice as a complication of the treatment of syphilis rare in 1917 and 1918, but in 1918 to 1920 the number of cases of jaundice increased 100 per cent. They were unable to account for the rise, for there had been no change in technic.

One can hardly pass over the subject without referring to the relationship of emotional disturbances. It was a frequently mentioned factor in the case reports of 100 years ago, when clinicians were much keener observers than they are today. We are of the opinion that emotional states with the accompanying derangement of the secretion of the endocrine glands may possibly so interfere with the nutrition of liver cells that substances which are ordinarily harmless may become exceedingly noxious.

SYMPTOMATOLOGY

The patient usually consults her physician because of jaundice. She complains of progressive

gastro-intestinal distress of several days' duration. At first, it was belching and sour eructations, then loss of appetite, and finally nausea and vomiting. The vomitus often impresses her, first, it is recognizable food, which she is apt to blame for her illness; then it is bile-stained mucus; and finally a glairy-white or grayish mucus. Her head aches, and she is tired and sore over the entire body; then, with the appearance of jaundice, she is alarmed. Weakness and general soreness make her seek her bed. The jaundice deepens, and she becomes somnolent. The tongue by this time is heavily coated. There are sores on the lips, and the breath is foul. Muscular twitchings occur often involving the muscles of the face alone or one side of the body or one extremity. Occasionally there is a trismus. Wild delirium ushers in a state of coma, followed by death.

Fever may be absent. Early, the pulse is slow, but it soon becomes rapid and weak. The respirations are rapid and shallow. Prostration in the well-advanced case is marked.

Rarely, jaundice does not occur, and occasionally there is diarrhea (Cabot). Pain in the right hypochondrium or in the epigastrium is a common complaint. Some cases have suffered nose-bleed, and late in the disease hematemesis or bloody stools. Ascites and edema of the extremities appear late, after the sixth week.

PHYSICAL FINDINGS

In the well-established cases, the jaundice is very deep; the pupils are dilated. According to Weiss, this is an important sign. Moist râles are heard at the base of both lungs. The abdomen is flat and there is tenderness over the liver and epigastrium. The area of liver dullness is diminished. The spleen may be enlarged. Edema has been mentioned.

CLINICAL LABORATORY STUDIES

The amount of urine is diminished. It is deeply colored by bilirubin and promptly responds to test for bile pigments. The specific gravity is high, the reaction acid. Albumin is present in varying amounts. Benedict's test for sugar is negative. Casts, epithelial cells, and leukocytes are present in varying numbers. All these elements are often bile-stained. Occasionally there are red blood cells in appreciable numbers.

Urobilin is demonstrable in high dilutions of the urine. The total elimination of nitrogen is increased. That portion which appears as urea is diminished. Urinary ammonia is increased; it is partly found in combination with organic acids. All textbooks describe leucine and tyro-

sine in the urine of cases of acute yellow atrophy. Von Frerichs was probably the first to call attention to these substances, and every writer since his time emphasizes their demonstration. As a matter of fact, we have not been able to demonstrate either in our cases. Shumm was unable to find leucine or tyrosine in 5 of 7 cases. Others have experienced the same difficulty and have demonstrated leucine and tyrosine in diseases other than acute yellow atrophy (Roman).



Fig. 1. Case II. This liver was about one-half its natural size. It weighed 570 grams. The extreme small left lobe has no trace of regenerated nodules of liver tissue. Fig. 3 is a photomicrograph of a section from this lobe. In the right lobe are many nodules of regenerated tissue and some areas in which degeneration is beginning. Fig. 2 shows the early change.

Blood: The bilirubin content of the blood is high. There is a direct immediate van den Bergh's reaction. The quantitative van den Bergh's reads from 10 to 40 mg. of bilirubin. The icterus index may be 90 or more. Liver functional tests (bromsulphalein) are characterized by marked retention of dye. The tolerance for galactose is diminished. Blood lipase is increased and amino-nitrogen is high. Van Slyke and Stadie, quoted by Wells, found 14 to 25 mg. per 100 c. c. as compared with 5 to 8 mg. normally found. The urea nitrogen is not high, often it is normal or below normal. Blood sugar is at first increased; later it is diminished. Sugar tolerance is reduced (Bodasky).

The coagulation time and bleeding time are prolonged because no doubt of the diminished amount of fibrinogen. The platelet count is normal. The blood count may show a moderate anemia. Sometimes there is leukopenia; occasionally with intercurrent infections, there is leukocytosis.

Feces: The feces are often clay-colored and contain only trace of bile pigment. Occasionally the stool is bloody, the result of an intestinal hemorrhage or rupture of esophageal varix.

MORBID ANATOMY

The original description of the body at necropsy, by Rokitsky, leaves little to be added. Apparently, his cases showed no evidence of regeneration. Zenker and Marchand described for us red atrophy and the regenerative changes.

Lungs: There may be no pathologic change. Commonly, edema in greater or less degree is found.

Heart: The heart is always flabby and frequently shows fatty degeneration. Of peculiar interest are the subepicardial and subendocardial petechiae. The blood has an unusual watery, muddy, or brownish appearance. It is not clotted in the vessels.

Spleen: This organ is often enlarged. It is soft and bloody, occasionally in the cases of chronic yellow atrophy (regenerative stage) it is firm. The *kidneys* like the heart show degenerative changes in the tubular epithelium. Often the glomerular epithelium is swollen and desquamated, occasionally there is cellular increase in the tuft.

Liver: The liver is shrunken to about half its natural size. Indeed, at necropsy, one must hunt for it behind the diaphragm (fig. 1). Its color now is yellow ocher or marbled red and yellow. Its edges are sharp, so sharp indeed that it seems as if the very edge consists of nothing more than the two layers of the capsule. The surface is wrinkled. The liver tissue is tough and is not so easily cut. The incised surface in the very early cases is homogeneous, sometimes granular, and yellow. In patches, the lobular design may be distinguishable. These areas are elevated above the general surface and are softer and more friable than the surrounding areas. Sometimes they are fatty, but generally no fat is found. Rokitsky wrote that the liver does not grease the knife. At a later stage, the areas of red atrophy appear. In these areas, all the liver cells have been autolyzed. Only the stroma remains, and its color is red, if there has been hemorrhage, as there frequently is, or gray if the tissue is anemic. Still later, regeneration occurs, and it brings about the formation of new liver lobules in this dark red background. The new lobule is found in clusters that are elevated. They are yellow or yellowish-green and soft. They project from the surface of the liver as small knobs. Months later, the liver has the hobnailed appearance so well known to all of us. The new nodules are so closely packed that the once prominent stroma is now barely recognizable. The left lobe usually shows greater involvement than the right.

Early, the bile ducts and gallbladder are empty and collapsed. Later, with the advent of regeneration, they may contain viscid bile. The gastro-intestinal tract usually shows evidence of a mild or severe catarrhal inflammation. Petechial hemorrhages are found throughout in the acute stage. Later, there is passive congestion. In the central nervous system, petechial hemorrhages are also seen. Occasionally, there is marked edema of the brain.

MICROSCOPY OF THE LIVER

In all probability, the lesion starts as a central necrosis, as shown by Fig. 2. Necrosis and lysis

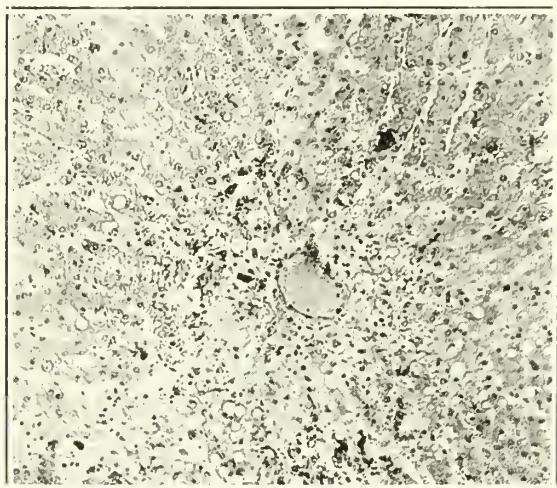


Fig. 2. Case II. Though an established case of yellow atrophy, there were parts of the liver like the one shown here in which destruction of the lobule was not complete. The central vein is easily recognized and the destruction of liver cells surrounding it is very evident. The mid-zonal and peripheral cells of the lobule, while showing degenerative changes and large fat globules, are still sufficiently well-preserved to permit their recognition. The large black, more or less circular bodies, scattered throughout the field are accumulations of bile pigment. Note the relatively slight leukocytic infiltration.

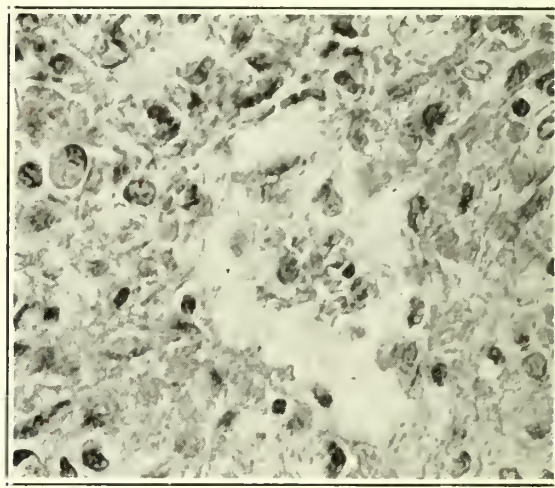


Fig. 3. Case II. Higher magnification. The wall of the central vein may be seen. The lining endothelial cells have been destroyed. There is not a recognizable liver cell in the field; only the stroma and Kupffer cells remain. The area is infiltrated by mononuclear leukocytes and lymphocytes. Thrombosis has not occurred in the central vein; from the character of the red cells within it, one might suppose it was patent.

spread rapidly without very much fat accumulation, as indicated by Fig. 4. The nucleus fades first and gradually the outlines of the cells are lost. The framework of connective tissue, the blood vessels, the Kupffer cells and bile ducts are left momentarily intact. Then there occurs collapse and the lobular pattern with its central vein is not so easily recognized (fig. 6). Sometimes collapse occurs before complete solution of the cells. One sees the distorted lobule of flattened liver cells in almost parallel rows. In these lobules, the central vein is collapsed. As the liver cells disappear, the sinuses become filled with blood, and the color changes from yellow to red. This is the microscopy of the area of red atrophy. If for some reason, blood cannot get into the sinuses, the part becomes gray. Later, any liver cells that remain intact begin to proliferate and reestablish the lobule. This is the

usually inversely proportioned to regenerative activity. When the injury is mild, the lobule is often perfectly reformed, but where the damage is great the newly-formed lobule is distorted. The central vein cannot be recognized. If it is present, it is eccentrically located. The liver cells form a misshapen mass often in parallel rows. They are rich in bile pigments, and indeed the latter are often present in large globules (fig. 7). In the trabeculae there are many bile ducts. The increase is more apparent than real because of their concentration with the collapse of the framework. Proliferation does occur to reestablish connection with the liver cells so that the excreted bile may be carried away.

Chemistry of the liver: Von Frerichs described the presence of leucine and tyrosine in the scrapings from the liver in yellow atrophy in 1852. They probably are the result of dis-

integration of liver cells and their amounts are proportionate to the rapidity and extent of lysis. Glycogen in the liver is greatly reduced. The fat content is normal or less than normal and lecithin is also decreased. Cholesterol remains unchanged. The water content is high.

REPORT OF FIVE CASES

CASE No. I.—S. S., T. U. H. 6532. (See fig. 6.) White male, age 52. Admitted to the hospital in coma. Two weeks before admission, patient complained of

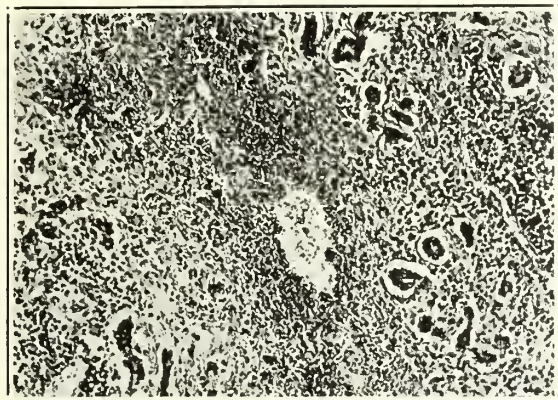


Fig. 4. Case III. Note the dilated central vein; the preservation of the lobular pattern; the collapse of the lobule. Note that the sinusoids seem to run parallel to the cross diameter of the vein. About the vein in the necrotic tissue there is marked hemorrhage. Note the leukocytic infiltration about the bile ducts in the right half of the photograph and in the left third of the photograph. Red blood cells also lie in the vein. In the same section in which this photograph was made there were also recognizable islands of liver cells although none showed the central necrosis picture from Fig. 2.

pain in the stomach, nausea, and vomiting. He became progressively weaker, a rapidly deepening jaundice developed. Four days before admission he sought his bed. Stupor and coma followed.

Three months before the present illness he had suffered sciatica with severe sacro-iliac pain. No history of the taking of any drug for the relief of this condition could be obtained from the patient's family or his physician.

Physical examination revealed a very ill, prostrated, and deeply-jaundiced male of about 60 years. There was marked dyspnea. The heart was irregular, the muscle tone poor. Pulse rapid.

Patient was constipated. Stools were alcoholic.

The blood showed a positive direct van den Bergh reaction. Icterus index, 200; sugar, 102 mg.; non-protein nitrogen, 40 mg.; uric acid, 2.77 mg.; and creatinin, 2.1 mg. The urine was deeply colored with bile pigments.

Death occurred 40 hours after admission.

Necropsy findings: Acute degeneration of myocardium; bronchopneumonia; pigmentation of spleen; acute nephritis; subacute yellow atrophy of liver.

CASE No. II.—Mrs. W., T. U. H. 7273. (See figs. 1, 2, and 3.) White female, age 33 years. Admitted to hospital complaining of nausea and vomiting every day for past 6 weeks, which had no relation to the taking of food. It was suspected that she had a hyperemesis of early pregnancy. There was no drug etiology ascertained in this patient. The physical examination was practically negative except for jaundice. A dilatation

and curettage was done and nothing found in the uterus. A vaginal section was also made and nothing abnormal found. A roentgenogram of gallbladder, following the use of dye, showed no evidence of gallbladder shadow. Blood count: Hemoglobin, 75 per cent; erythrocytes, 3,900,000; leukocytes, 9700. Icterus index, 80 mg.; van den Bergh direct, immediate; van den Bergh, 10 units. The urine, which was negative on admission, except for bile, as toxemia advanced, showed trace of albumin and casts.

Patient died 3 weeks after admission to hospital.

Necropsy findings: Subacute yellow atrophy of the liver.

After death, it was learned that this patient had taken atophan about 6 weeks before the fatal illness began. She did not take it by the advice of a physician. We were unable to learn how much of the drug was consumed.

This case included with the permission of Dr. Frank C. Hammond.

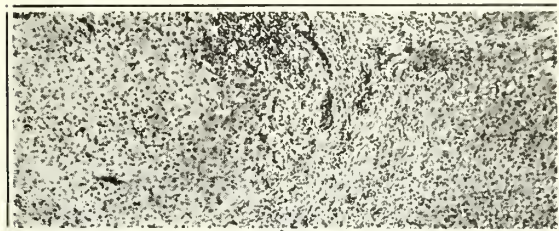


Fig. 5. Case V. Regeneration has proceeded a little farther in this case than in the others shown. On the right is a large regenerated liver lobule; on the left there are distinct smaller lobules each surrounded by bundles of fibrous tissue. The broad pathway of connective tissue running through the center of the photograph is densely infiltrated by mononuclear leukocytes. Note the large spaces left by fat globules in the liver cells. Note also near the center of the photograph a proliferating bile duct with its knoblike end.

CASE No. III.—Miss F., T. U. H., 8763. (See fig. 4.) White female, age 61.

Admitted to hospital in semistuporous state but could be roused. This condition started about 10 days previously with a definite feeling of lassitude and distress in lower abdomen. Prostration was marked. The patient became gradually worse with increasing jaundice. The family doctor's history shows that she was taking cinchophen, $7\frac{1}{2}$ grains t. i. d., for at least a period of 2 weeks prior to the acute attack.

Examination showed patient markedly jaundiced; myocardium poor; enlarged and distended abdomen, with an apparently hard mass in epigastrium. Entire abdomen was tender to pressure. Diagnosis of malignancy made.

Blood count: Hemoglobin, 80 per cent; erythrocytes, 3,810,000; leukocytes, 6050. Icterus index, 90. Van den Bergh direct, immediate.

This patient died in 48 hours after admission to hospital.

Necropsy findings: Subacute yellow atrophy of liver; chronic degeneration of myocardium.

CASE No. IV.—Miss S., T. U. H., 9025. (See fig. 7.) Well nourished white female, age 40.

Admitted to hospital, Aug. 2, 1931, complaining of nausea, vomiting, severe diarrhea, and abdominal cramps. The patient had been treated for several years for constant indefinite complaints and 3 months prior to admission her physician told us she gave her 5 grains of cinchophen, t. i. d., and to her knowledge she took this only 3 days. One and a half months later, when

this patient returned to the office she was quite ill; weak, faint, vomiting, and slightly jaundiced. She was put to bed and gradually became worse. On admission to the hospital, was very ill. Examination showed intense jaundice, and by percussion, a small liver. Pressure over right rectus showed some resistance and tenderness in right upper quadrant. The patient was well nourished.

Blood count: Hemoglobin, 65 per cent; erythrocytes, 3,550,000; leukocytes, 9100. Icterus index ranged from 85 to 110 units. Van den Bergh direct, immediate. Quantitative 8 mg. per 100 c.c. of blood. Liver function showed dye retention, 100 per cent in 30 min.; 65 per cent in 60 min. Roentgen ray showed no definite findings. She improved under rest, biliary drainage, and glucose.

On Sept. 2, abdominal exploratory operation was performed and biopsy of liver made. Operation notes show liver one-half normal size. No nodules palpated, liver edges sharp and some evidence of regeneration in right lobe along liver notch.

Pathologic report definitely diagnosed condition as subacute yellow atrophy of liver.

Patient recovered and at present (1 year from onset) is apparently without symptoms.

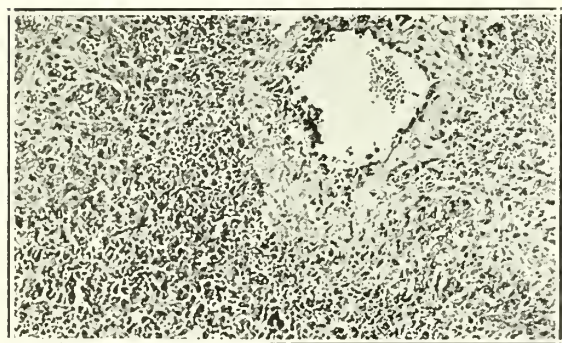


Fig. 6. Case I. Acute destructive lesion. The central vein is easily recognized. There is no trace of a liver cell. In the microscopic preparation, one could see the sinuses filled with red cells. The Kupffer cells and an occasional leukocyte were the only well-preserved bodies. Even the stroma seems swollen and opaque.

dex, 90; van den Bergh biphasic; blood sugar, 67 mg.; urea nitrogen, 63 mg.; Wassermann reaction, negative. Patient died within 3 days.

Necropsy findings: Generalized icterus, lobular pneumonia; acute diffuse nephritis; chronic cholecystitis, with cholelithiasis and subacute yellow atrophy of the liver.

TREATMENT

The success of treatment lies unquestionably in the early recognition of the lesion and the immediate cessation of the use of known toxic substances, if this has not already been done. Unfortunately, symptoms often do not appear until days after the cinchophen has been discontinued or long after the patient has been exposed to the fumes of trinitrotoluol, so that the injury has already occurred. Early recognition of the cause as may be ascertained by an anamnesis that is carefully and thoroughly taken, will permit of



Fig. 7. Case IV. Biopsy removed at operation. Patient still living. Note the regenerated liver lobules; a very small one just above the center of the photograph and numerous larger ones on all sides. To the right of the center there are a portal vein and bile ducts. There is very little fibrous tissue proliferation. The fibrous bands coursing through the field represent areas of collapsed fibrosis. Note that the newly-formed liver lobules do not possess a recognizable central vein, nor are the liver cells arranged in the orderly radiating cords, but tend to lie in a confused mass or in parallel lines. In this case, too, fatty changes and other degenerative changes have occurred in the liver cells. Note the rather marked leukocytic infiltration of the connective tissue.

CASE NO. V.—Mrs. O. H., T. U. H., 9578. (See fig. 5.) White female, age 38. Complained of "bilious" attacks and generalized abdominal pains during past year. The history obtained from the husband and after patient's death and necropsy was as follows:

On one of her occasional visits to a physician, about a year prior to admission to hospital, complaining of pain in her knee, she was given a small box of farastan, which relieved her pain a great deal. When these capsules were gone, she bought this product from the drug store and used it more or less constantly until she became quite ill, about one month prior to admission to hospital.

On admission, she was stuporous but could be aroused, and suffered no pain. She was intensely jaundiced, heart action poor, marked abdominal distention, but no rigidity or tenderness. The liver was very small. This being the third patient with similar symptoms, the diagnosis of acute yellow atrophy was made, ante-mortem, the only one in the group.

The blood count was: Hemoglobin, 80 per cent; erythrocytes, 4,430,000; leukocytes, 29,150; icterus in-

measures that may tide the patient over the period of destructive action in the liver. The treatment may be directed along three lines:

1. Conserve the patient's strength by the usual hygienic measures of quietness and rest in bed. Eliminate natural wastes by enemata and the free use of fluids by mouth (with due regard for the maintenance of a water balance). Protect the liver by feeding a diet low in proteins and rich in carbohydrates. Gastric lavage in connection with No. 2.
2. Elimination of toxins from the liver and promotion of the flow of bile by instillation of magnesium sulphate into the duodenum.
3. The administration of glucose or levulose by mouth in fruit juice or by proctoclysis or intravenously. The injection of insulin preceding the glucose seems to enhance the effect.

It is our opinion that glucose and moderate doses of insulin are as effective as the more radical treatment of Umber.

Further, we believe that the proper steps taken to regulate the use of cinchophen and its associated compounds (of which there are many) will greatly diminish the morbidity and mortality of yellow atrophy.

SUMMARY

Yellow atrophy is a clinical entity. It is neither rare nor necessarily fatal.

It may occur in mild form, and under proper treatment recovery may be anticipated.

Early diagnosis can be made on a basis of thorough investigation of the past medical history and judiciously chosen laboratory studies.

Rational treatment as outlined, has reduced the mortality rates in at least one clinic.

Prevention of self-medication, by limiting the sale of cinchophen, will further decrease the rising mortality rates of this disease.

3638 North Twenty-first Street.

EXOPHTHALMIC GOITER IN CHILDREN OF TEN AND UNDER

Comments Based on a Series of 102 Cases

ISRAEL BRAM, M.D., PHILADELPHIA

Although simple goiter in children is common, exophthalmic goiter is quite unusual before the first decade of life. During the past 22 years we have observed approximately 4300 cases of exophthalmic goiter within a total series of nearly 13,000 goiter cases. Of these 934, or approximately 7 per cent, occurred in children age 10 and younger; of these, 102 or approximately 0.8 per cent of the total were cases of exophthalmic goiter.

PECULIARITIES OF EXOPHTHALMIC GOITER IN CHILDREN

The *sex incidence* indicates that exophthalmic goiter in children is singularly selective in favor of females. In our series of 102 cases only 5 occurred in males.

The *age incidence* indicates that exophthalmic goiter becomes progressively rarer as infancy is approached. Though cases are recorded of the disease occurring at birth and during the first year of life, our youngest patient was 25 months old.

TABLE 1.—*Age Incidence in 102 Cases of Exophthalmic Goiter Age 10 or Younger*

32	(	31	per cent),	age	9	to	10
24	(	24	"	"	"	8	" 9
17	(	17	"	"	"	7	" 8
11	(	10	"	"	"	6	" 7
8	(	8	"	"	"	5	" 6
5	(	5	"	"	"	4	" 5
3	(	3	"	"	"	3	" 4
2	(	2	"	"	"	2	" 3

Totals: 102 (100 per cent)

In etiology, the exciting cause of exophthalmic goiter in this series of children was usually a focal or general infection. In fully 50 per cent there occurred an apparently related infection in teeth, tonsils, or both; in approximately 22 per cent such general infections as measles, scarlet fever, and whooping cough served as the exciting cause. In another 12 per cent, the apparent exciting cause was a preëxisting simple colloid or hypertrophic thyroid swelling without discoverable causation of thyroid or general endocrine excitability. In approximately 6 per cent, the exciting cause appeared to be a psychic trauma. In the remainder there was no discoverable etiologic factor. An occasional instance followed the injudicious administration of iodine or thyroid substance for the treatment of a preëxisting simple goiter.

Goiter and exophthalmos were almost constant, occurring in combination in more than 90 per cent of this series. Probably because of the fact that thyroid hyperplasia was in many instances a recent superimposition upon colloid goiter, bruit over the gland was inconstant, occurring in approximately 65 per cent of cases.

The *tachycardia* in the majority of patients was out of proportion with the severity and duration of the disease. Thus in 36 patients, or 35 per cent, the heart rate varied between 140 and 160 per minute and the circulatory phenomena occasioned considerable concern.

The *nervousness and tremor* were likewise exaggerated as compared with the adult patient. The general nervousness resembled in many ways the purposeless movements of chorea. Many of these children found it difficult to sit

or stand still for even a moment, and during sleep tossing about, sighing, crying out and occasionally falling out of bed accounted for the marked fatigue on arising in the morning. Enuresis, too, was a common occurrence in 32 patients or 31 per cent. Tremor was a constant finding, and was coarse and exaggerated in nearly every case.



Fig. 1. Two cases of severe exophthalmic goiter in female children of 5 and 6 years of age respectively.

The *gastro-intestinal symptoms* were somewhat more intense in children than in adults, with nausea, vomiting, and diarrhea somewhat more frequent.

The *loss in weight* in children was apparently less intense than is observed in adults. Many appeared during crises, yet were well nourished and occasionally somewhat obese.

Undue *augmentation in height* was a frequent observation in children approaching the eleventh year of life who were suffering from or had recently recovered from exophthalmic goiter.

Such symptoms as *sweating, thirst, and dyspnea* did not present any feature differing markedly from these symptoms in the adult.

The *basal metabolic rate* in children younger than age 10 was not always obtainable for lack of coöperation, and even in those attempting coöperation, there was always some doubt of its accuracy. The rating in those presenting apparently reliable tests was somewhat higher than that observed in a proportionate number of cases in adults, but as a general rule lower than would correspond to the subjective and objective symptoms presented.

COMMENTS ON DIAGNOSIS

The diagnosis of exophthalmic goiter in children is often quite difficult because of the comparative rarity of the disease in the very young. Frequently such a child may be regarded as a

sufferer from "nervousness," "worms," "chorea," "nervous heart," "anemia," and other conditions common to children. Occasionally the true diagnosis is not made for many months, when the disease had made damaging inroads into the circulatory and nervous systems. Even in the absence of basal metabolic tests, the persistence of afebrile tachycardia not materially influenced by sleep, the marked tremor of the intention type, the swelling of the thyroid, which commonly presents a bruit, the prominence of the eyeballs, and the ability to take at least 5 grains quinine sulphate 3 times a day without evidence of cinchonism, these features persisting for several weeks should clinch the diagnosis.

COMMENTS ON TREATMENT

The need of the thyroid gland for future growth and development is so great as to lend exceeding conservatism to therapeutics. These children may easily be transformed into pseudocretins by thyroid ablation, with jeopardy of their future health and development. Careful, patient therapeutics should succeed in the majority of cases in effecting recovery.

The guiding principles in treatment are based upon the elimination of discoverable etiologic factors, a consideration of an ample dietary characterized by a minimum of animal proteins and a prohibition from tea, coffee, condiments, and the spices; a surplus of rest and sleep, a carefully planned psychotherapy in which the other children in the household, the parents, relatives, and neighbors who visit the patient are to receive the doctor's consideration, and a carefully planned régime of medication.

Infected teeth and tonsils must be removed at the proper time. Despite apparent urgency of this matter, the patient should be permitted to improve considerably to tide over the peak of the syndrome before the dentist or tonsillectomist is permitted to operate. By no means should this attention be given during the stage of crisis. Also, in view of the deficiency of calcium fixation in this disease, the necessary precautions should be taken to avoid undue operative or post-operative hemorrhage when teeth are extracted or tonsils removed.

The dietary, especially the qualitative aspect, offers no difficulties. All that is required is the ability of those in the household tactfully to dominate the child with respect to its likes and dislikes. Since these patients frequently present a deficiency of carbohydrate tolerance, candies and other sweets, and an excess of ice cream should be prohibited. The patient should be put on a low flesh protein dietary. Fish, fowl, or a small amount of lamb should constitute the only

flesh proteins, the remaining articles in the dietary being easily derived from the cereals, fruits, vegetables, and dairy products. Quantitatively, it is well that these patients be given sufficient food to maintain the maximum weight for their height and age.

Since children, unless curbed, are very apt to hop and jump about when feeling better, they had best be kept in bed most of the time under the vigilance of an adult. I have seen a number of youngsters relapse into cardiac delirium because of a long sought-for spree with the jump-

ploited), sajodin in carefully planned minimal doses may be administered. The quinine salts are very useful in these cases. Two other medicaments of high value are eserine salicylate and one of the barbiturates in small doses. These 4 medicaments are all that we found necessary in the advantageous management of the average patient and may be given in capsule or powder form administered 2 or 3 times a day. The dosage and duration of their administration will depend largely upon individual needs and the experience of the medical attendant. Such



Fig. 2. Three cases of typical exophthalmic goiter in girls of 7, 8, and 9 years of age respectively. Note the well nourished features of these patients, especially the last.

ing rope. In order to obviate such an event it is often best to keep playmates away during the height of the disease.

In children, psychotherapy is quite as needful as in adults. While in bed the child may be given games to play with and books that are easily enjoyed. We often see a little patient enjoying herself immensely with the Sunday morning comic section of the newspaper. By all means must we avoid the tendency toward excitement and crying. Too much coddling and indulgence frequently defeat the purpose. Each child should be treated in accordance with its individual needs and temperament. Often a visit to the child's home by its school teacher accomplishes wonders on the child's mind and improves the spirit of coöperation.

Medicaments, while valuable and often vital, are not numerous insofar as these patients are concerned. Rather than Lugol's solution (a substance which is being unnecessarily ex-

symptoms as persistent enuresis, nausea, and vomiting may require special medication until these indications are passed.

A note of warning is timely respecting the use of iodine and the iodides: If any doubt exists relative to their use in a given case it is far better not to employ them at all than to take chances. In this series an occasional instance of exophthalmic goiter followed iodine medication for simple goiter. There are many individuals, young and old, who are iodine sensitive and easily made iodine-fast.

The greatest requirement in the management of these patients—vital as is skill in therapeutics—is patience. This quality should be exercised by doctor, patient, and all others concerned. It is generally recognized that the disease occurs in one possessed of a congenital predisposition, and recovery must be effected not only by elimination of symptoms, but the development of a state of relative immunity to the malady as a prophyl-

lactic measure in the protection of the future. This takes time—months in all cases, a year or two in many. The fact is that exophthalmic goiter is not an acute condition but is of insidious onset requiring just as insidious management for successful recovery. There is no short cut in the management of incipient tuberculosis, of gastric or duodenal ulcer, and there is no short cut in the successful management of exophthalmic goiter especially in children.

CONCLUSIONS

1. A series of 102 cases of exophthalmic goiter in children 10 years old and under is discussed. These constituted approximately 0.8 per cent of a total of nearly 13,000 cases of goiter observed during a period of 22 years.

2. Of this series only 5 occurred in males, the ratio of females to males being approximately 20 to 1.

3. While in our experience, the exciting cause of exophthalmic goiter in adults is usually a psychic trauma, in children it is commonly a focal or general infection.

4. The symptomatology in children, especially the thyroid swelling, exophthalmos, tachycardia, and nervous phenomena, is somewhat exaggerated as compared to that of adults.

5. Since young children are apt to need their entire thyroid for future growth and development, treatment should lean toward conservatism. Elimination, at the proper time, of discoverable infectious foci; an ample low animal protein dietary; a proper rest routine, and a few carefully selected medicaments with psychotherapy dominating the patient and household, should effect recovery in the average child within several months of patient teamwork.

1633 Spruce Street.

THE PHYSICIAN AND NRA

In an editorial in the *Journal of the American Medical Association* for Aug. 12, 1933, the following appears:

Everywhere today men talk about the National Industrial Recovery Act. Questions have poured into the headquarters of the American Medical Association relative to the relationship of the medical profession to the NRA and its stipulations. Probably the most significant of these questions concerns hours of work for physicians and hours of work and salaries to be paid their assistants and attendants. At present it is safe to say that physicians are exempt, as are other professional men, from hours of work and payment stipulations under the NRA, and that their professional employees, such as laboratory technicians, radiologists, anesthetists, and similar professional groups, are not immediately concerned. However, if a physician employs more than two persons as attendants in his office, of the class of clerical employees, accountants, laborers, and similar types of help, they do come under the National Recovery Act with a minimum wage and certain maximum hours of work.

The medical profession, as far as concerns its private practice, need have no immediate concern over the stipulations of this act. The legislation is not intended to interfere with the personal relationship between physician and patient, necessary to the best type of medical care. Physicians have never had definite hours of work; they have always been subject to call at any moment for the benefit of their patients. The rights of the sick man are above hours of work or regulations of this character. It is hoped that every physician will enter wholly into the spirit of the National Recovery Act as an ideal, representing the government's point of view as to the principles and motives behind which the entire nation must unite if it is to pull itself out of the slough into which it has fallen.

In his relationship to the hospital, the physician will find himself in a somewhat more complicated situation.

Because of the large number of employees involved, hospitals are definitely concerned under this act. A preliminary interview of officers of the American Hospital Association with the Division of Reemployment of the NRA developed several interesting points of view. Apparently voluntary hospitals come under the provisions of the agreement with the possibility that they might be exempted when operated largely as charities incurring deficits in their operation, and also as institutions for the care of emergencies. It was the opinion of officials in Washington that administrative, professional nursing and student staffs, dietitians, technicians, and other professional employees do not come under the provisions of the agreement, but that all maids, orderlies, waitresses, laundry workers, and others in the lower level of wage earners do come within this classification. As hospitals give 24-hour service every day during the entire week, it was pointed out to General Hammond that it would work a hardship on the hospitals to attempt to apply a 40-hour week for this type of personnel. Nevertheless, he expressed the opinion that 7 days a week and 8 hours a day constituted too many hours of employment and that even though the majority of such employees seldom put in a total of 56 hours, special consideration would have to be given to the question. This matter is being carried further by the American Hospital Association.

This act concerns the American Medical Association also as an employer in its headquarters office of some 500 persons. The headquarters office, by order of the Board of Trustees, entered promptly into the spirit of the act so far as concerns payment of employees in the lower wage levels and hours of work.

Again the *Journal* would urge physicians in all their relationships to enter fully into the spirit of the legislation, recognizing its experimental character but realizing that the times demand experimentation by the trial and error method if a solution is to be found for what has seemed in the past a most difficult problem.

EDITORIALS

THE FIRST STATE MEDICAL JOURNAL

The fiscal year of The Medical Society of the State of Pennsylvania extends from October 1 to September 30. Accordingly the October issue is No. 1, of the new serial. The present issue being Vol. XXXVII-No. 1.

The PENNSYLVANIA MEDICAL JOURNAL was founded in 1886 by Dr. N. O. Werder as the *Pittsburgh Medical Review*, and conducted by an editorial board. In 1892, the late Dr. Adolph Koenig, of Pittsburgh, assumed the editorship, and in 1897 the name was changed to the PENNSYLVANIA MEDICAL JOURNAL, and it became *the first state medical journal in America*.

Dr. Koenig as founder, editor, and publisher (with the assistance of his devoted wife), insisted that all advertisements should be of the highest type, refusing many and thereby incurring a financial loss, rather than accept them for publication, if not up to his standard of ethics. Dr. Koenig insisted upon the continuation of this policy when he relinquished control of the JOURNAL to the Board of Trustees. This high grade of requirement for acceptable advertisements antedated the Council on Pharmacy and Chemistry of the American Medical Association. Accordingly, from its incipency as the first state medical journal, it blazed the trail for all journals to follow, not alone in acceptable advertisements, but in the activities properly belonging to a state journal.

It continues jealously to guard the traditions established by its founder, and to meet, yea anticipate, the every needs of a state medical journal.

This is the house organ of your State Society, covering the activities of the parent organization and its component county societies. It also affords much valuable information of allied interest.

The President's Address, read at the Annual Session, is published in October. In this number will be found President Donald Guthrie's address read at the Philadelphia Convention. All members are urged to read this address, and govern themselves accordingly.

COUNTY MEDICAL SOCIETY REPORTERS

We wish to extend grateful appreciation to the official reporters of the component county

medical societies of our State Society, who forwarded to the JOURNAL office during the fiscal year reports of the meetings of their county societies. There has been an increase in the number of reports received in comparison with the previous year, notwithstanding a few have become inactive, and some have never begun. We are also indebted to those who have sent reports of other medical meetings. It should be of interest to the reporters to know that during the fiscal year just closed 178 county society reports were published. If the report of a county society does not appear in the JOURNAL it is because the report has not been received in the JOURNAL office.

May we have further coöperation as to the following: All reports should be typewritten and double spaced; give the date of the month of the meeting; give an abstract of papers read as well as the essential features of the discussion. The latter is very important, at times more so than the paper read.

Frequently a meager death notice is given of a deceased physician in the JOURNAL. This is because the JOURNAL office has no data in regard thereto. Occasionally a county society bulletin will give a write-up regarding a deceased member, which affords the JOURNAL due information. If the reporter would bear in mind this detail and send the facts to the JOURNAL office, whether or not the deceased is a member of the county society, or have the secretary of the county society do so, it will enhance the value of the death reports. Frequently we see in the newspapers a reference to the death of a physician, which may be our only source of information; and this invariably giving only the name, date, and residence.

Please bear in mind we do not publish resolutions adopted in memory of deceased physicians. During the past fiscal year our State Society sustained a loss of 130 members, an average of 10 plus a month. It readily can be appreciated the amount of space that would be utilized for this purpose.

Other matters of interest for news items that the reporter could bear in mind are: births, engagements, marriages, death of members of a doctor's immediate family (wife, children), and other local medical activities.

CORONER OR MEDICAL EXAMINER. A REPLY

In the February, 1933, number of the JOURNAL, p. 347, appeared an editorial entitled "Coroner or Medical Examiner," which referred to the agitation in the United States in regard to coroner *vs.* medical examiner, as here and there continues an outcropping in favor of the medical examiner. The editorial in question quoted an editorial from the *Philadelphia (Pa.) Evening Public Ledger*, which referred to the fact that "the Philadelphia Criminal Justice Association urges abolishing the coroner's office, substituting a medical examiner," *etc.* The *Ledger* editorial concluded: "The abolition move seems worth following up." The tenor of both the editorials was in favor of the adoption of a medical examiner system.

Since this editorial appeared there have been several favorable expressions for the medical examiner system in divers parts of the United States.

A few days after the editorial appeared in the JOURNAL there was held a meeting at Harrisburg, Pa., of the Pennsylvania Coroner's Association, to discuss procedures to standardize coroner's offices in all Pennsylvania counties, and a committee was appointed to draft bills to be introduced into the State Legislature then in session; but this action was taken too late for this purpose. Plans establishing standards for inquests, investigation, location of coroner's offices, clerical help, and methods of filing reports, were prepared for a meeting in Harrisburg last June.

The Association at the February meeting adopted the following "code of coroner's cases," specifying the types of cases for which coroner's should be called.

All suicides or homicides and all cases in which a reasonable suspicion as to the cause of death exists. Cases which have been under medical attention less than 24 hours.

All accident cases, or cases which are the result of external violence of any kind, the period covering same being one year and one day.

All persons who die of any disease in which an accident or external violence acted as a contributory cause of death.

Cases coming under the above enumerated classes should be reported to the coroner or to the deputy covering the territory in which the death occurred as soon as possible after said death occurs; the body of the deceased person must not be moved or the effects of the deceased or the furnishings of the room in which said body be found until same has been viewed by the coroner or the deputy.

Peculiarly the February meeting of the coroners was held several days after the February JOURNAL appeared. Your editor had no previ-

ous knowledge of the anticipated meeting of the coroners. But the publishing of the editorial could not have been better timed, for when the coroners assembled they were all set for an inquest, necropsy, and interment of the editorial.

We are pleased that the editorial provoked the attention of the coroners because their replies will afford our readers an opportunity to hear the other side of this controversial question.

Dr. J. Howard Scheehle, Coroner of Delaware County, prepared a reply at the request of the Pennsylvania Coroner's Association, which is to be found on page 6 of this JOURNAL.

The following three letters received by your editor are enlightening, and afford much food for thought.

Feb. 18, 1933.

My dear Doctor Hammond:

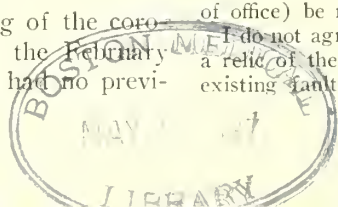
The editorial, "Coroner or Medical Examiner," appearing in the PENNSYLVANIA MEDICAL JOURNAL for February, 1933, seems so biased to one having knowledge of the workings of the office, that I believe a reply is in order. The flat statement in the initial paragraph of the article that "the coroner should be abolished in favor of the medical examiner" places emphasis on the above statement in so far as the writer gives no authority for such a statement and I judge it is merely his personal opinion.

I am not entirely unopposed to the idea of a medical examiner but surely cannot see why the office of coroner should be abolished until a more efficient and scientific way of administering the office shall be substituted. Would it not be better to secure proper legislation and revision of antiquated laws, long since out of print instead of thrusting a more costly system upon the public? It is true that in New York, Rhode Island, Massachusetts, Vermont, and New Hampshire the Medical Examiner system is satisfactorily in force, but is merely replacing the term, "medical examiner" for the already existing "coroner."

It is also true that much scientific knowledge is at present wasted but would this not be true in the case of the medical examiner if his funds were limited as, are those of the coroner at present?

In my county the services of hospitals are accepted by the coroner and there is, I believe, excellent cooperation between the hospitals and the coroner. The writer's statement that the "coroner not only refused to permit a necropsy, but will try to force the hospital authorities to issue a certificate" may be true of the writer's county, but I fear the writer's observation of coroners and their actions in performance of duties is limited. You are no doubt aware that the local, State, and national bureau of vital statistics will not receive a certificate with an unsatisfactory cause of death thereon.

Certainly politics is an outstanding factor in the selection of a coroner but the people have the choice of electing a man of their choice, or reelection of one who has in their estimation, administered the office properly. I would ask if a medical examiner appointed by a mayor (elected by a political party for a definite term of office) be more savory than a duly elected coroner? I do not agree that the present system is slow, though a relic of the past and, as before stated, I believe that existing faults may be remedied by proper legislation.



Whether the office be labeled a coroner or a medical examiner, is not material.

Even though the writer's apparent local conditions do not warrant praise, I might refer him to some of the systems in effect in the large cities of the midwest and also suggest that he investigate some of the counties of his own State where I feel sure that he will find apparently honest doctors of medicine who are interested in pathologic anatomy, toxicology, and sociology and who are endeavoring to carry on the office of coroner with some degree of dignity and not without some honor to the medical profession in general.

I would suggest, after several years in the office of coroner of Dauphin County that the qualifications of a coroner be insisted upon. These include:

- (1) Graduation from a Class A medical school.
- (2) Internship in an accredited hospital.
- (3) An experience in performing autopsies under competent supervision.
- (4) Proper facilities for the performance of an autopsy with provision for bacteriological, chemical, and photographic including X-ray assistance (which have not been provided by law and are truly difficult to obtain under present legislation). In the larger counties a fixed salary should be paid; in the smaller ones an adequate fee, for each autopsy or viewing. Proper funds for the hire of clerical help should also be provided.

I believe that if the above brief outline were made a basis for a proper modification of existing laws there would be no need of the creation of additional costly offices and would make for a better and more efficient administration of the office of coroner. It is simply a matter of elevating the present office by means of proper legislation to the heights pictured for a "Medical Examiner."

Very truly yours,

(Signed) HOWARD E. MILLIKEN, M.D.,
Coroner, Dauphin County.

Feb. 20, 1933.

Dear Dr. Hammond:

I read with interest an editorial entitled "Coroner or Medical Examiner" in the February, 1933, issue of the PENNSYLVANIA MEDICAL JOURNAL. It is not my purpose in writing this letter to take issue with any just criticism of the office of Coroner.

Having held this position for eleven years past in Allegheny County of this State, I am familiar with many weaknesses of the office and, to the best of my ability, have tried to conduct this office under the scheme of a Medical Examiner, eliminating some of the objectionable features. Our autopsies are held by two recognized pathologists of this Community and every effort possible is made to arrive at a proper conclusion as to the cause of deaths.

There is a paragraph in the editorial which, I think, is rather misleading and if the writer had been familiar with the laws as set down in the performing of autopsies under Coroner's orders he would not have voiced this criticism as he has. This office receives repeatedly requests from hospitals offering the services of their department of pathologists to perform necropsies on persons dying in particular institutions, properly belonging to the Coroner's office, but unfortunately according to the Act, No. 78, signed April 16, 1907, by Edwin S. Stuart, Laws of Pennsylvania, specifically states that the Coroner can only hold autopsies on those cases where death is of a suspicious nature and character, therefore the Coroner is much in the same position

as the physician who has a baffling case in which upon death he is unable to obtain permission for an autopsy to arrive at a diagnosis of cause of death to sign his death certificate and can only make deductions from the history and clinical findings and the Coroner who would not ask the physician, however small his contact with the case may have been, to express an opinion as to a possible cause of death would be most derelict in his duty. I might state that there are cases unfortunately not infrequent in which when hospitals make requests for the Coroner's permission for an autopsy, in spite of a verbal expression as to why permission cannot be granted, they will retaliate by refusing to give what information they may have and their opinion.

The particular office of which I happen to be the head maintains a pathological department, is in close coöperation with a chemical laboratory, maintains an X-ray, and has one of the most complete ballistic departments in the United States and as to its investigation of crime, whether this crime may have been committed by projectile or chemical. In cases of food poisoning, no stone is left unturned. As to the investigation of food poisoning, our reports are accepted by the Department of Agriculture of the U. S. Government which you must know is most thorough in its work.

My chief purpose in writing this is to call your attention to a misrepresentation of facts pertaining to autopsies in this editorial and to let the writer of this editorial know that the Coroner's Office, even under the present laws can be run to the satisfaction of the public, the medical and legal profession and far superior to the office of Medical Examiner where it is abused.

I might also point out to the writer of this editorial the logical place for the Medical Examiner, as long as it has to be a political appointment, is not under the Mayor but under the District Attorney or the Courts of the respective counties. If appointment was placed in the hands of our Courts it would, at least to some degree, be divorced from politics.

Sincerely yours,

(Signed) W. J. MCGREGOR, M.D., Coroner,
County of Allegheny.

March 8, 1933.

Gentlemen:

Your recent editorial "Coroner or Medical Examiner," published in the February number of the JOURNAL excites comment. Instead of recommending abolition of the Coroner's Office, it would be far more diplomatic to take action to modernize this important function of county legal machinery. Support and reinforcement of this existing institution would be better than ridicule and condemnation. Remember that the penalty for failure to respond to a subpoena is still "One Hundred Pounds." The Coroner cannot alone be glorified as our most prized antique.

The Medical Examiner system unquestionably functions most effectively. The Coroner system could well be reorganized to operate equally effectively without any great change in the existing order of things. Here in Berks County we are fortunate in having as Coroner a progressive physician. It is his ideal to number among his deputies the pathologists of all the hospitals in the county, these pathologists empowered to act in all cases in their respective hospitals which properly fall within the jurisdiction of the Coroner's Office. In such cases it is becoming customary automatically to perform autopsies, and for this service there is no charge to the

county unless there is an inquest. An act of the State Legislature conferring the Coroner's power on all pathologists associated with hospitals would result in great economy and efficiency, and these pathologists, as Deputy Coroners, could always cooperate with the Coroner himself. At present the Coroner system is operating very satisfactorily here.

Since the final gesture of cooperation with the living that can be rendered by the dead is to disclose by autopsy the cause of death it seems strangely medieval that autopsies in all deaths are not authorized at the discretion of those who treat fatal illness in this country at large. I believe we are now engaged in the laying of a secure foundation for the adoption of such a measure in the near future. It could be accomplished even now by concerted action on the part of the established hospitals.

Very truly yours,

(Signed) NORMAN W. ELTON, M.D.,
Pathologist, St. Joseph's Hospital, Reading, Pa.

There is a general admission in these letters that the coroner's office in this State needs standardization and other improvements. If on due investigation the coroner's system is found to be preferable to the system of medical examiner, then let us lend every aid to the Pennsylvania Coroners' Association, to the end that they may secure the necessary legislation to place the coroner's office on an efficient basis in this State.

THE REVISION OF THE PHARMACOPEIA

Another revision of the U. S. Pharmacopeia will be made in 1940, and subcommittees are now working hard in its preparation. As is too frequently the case there is a general loss of interest on the part of physicians in the revision, notwithstanding one third of the Committee on Revision are physicians. On the other hand we dare say when the Committee on Revision announces that certain drugs or preparations will be discontinued, or, will be made official, and the physicians are asked to express an opinion thereon, the medical profession by and at large gives little or no credence to the request.

Would it not be worth while for the State Societies to appoint a Committee on Revision of the Pharmacopeia for the study and recommendations anent the medical problems peculiar to the revision of the Pharmacopeia? It would be at least giving it a trial to determine its value to the Revision. The county societies could forward their recommendations to the State Society Committee. Thus all medical groups would be reached.

It is not generally realized to how great an extent the medical profession has neglected its manifest obligations in connection with the Pharmacopeia. This state of affairs is not creditable to the medical profession, for obvious-

ly it is not the province of pharmacists to decide for physicians what remedies they are to use.

We are not finding fault with the pharmacists for this condition of affairs, their spirit is worthy of emulation, and they may point with pride to their share of the work. The blame for this condition rests with the members of our own profession.

A very important object of the Pharmacopeia is to provide an authoritative list of remedial agents, which should represent all that is best in therapeutics. Is there a genuine progressive spirit in the matter of admissions and dismissals? If the book can be rid of all useless material, and filled with all that is best, and only the best, and maintain it at that high standard of excellence, it must command the admiration and enthusiastic support of the ablest men in the profession.

An argument used in support of the retention of many substances which the committee of revision would hardly commend individually, is based on the wishes and sentiments of many men of a great diversity of interests, education and ideas. It is true that the Pharmacopeia must serve a diversity of interests, all of which are represented in the direction of its affairs; but with the spread of scientific training, there is a better appreciation of the fact that independence is not incompatible with deference to the opinions of those better informed than ourselves, and with each revision we should approach nearer to the ideal.

It is of importance that an official article which has been superseded by a manifestly better one should be dismissed. This would serve notice to the practitioner that the article in question had failed to measure up to the standard of the best then in vogue. Physicians will employ whatever appears useful to them, but amid all the misrepresentations there is little cause for wonder that the physician should be duped occasionally; but it is remarkable how systematically, persistently and amazingly he allows himself to be cheated, humbugged, and even disgraced by the wily swindlers advocating the most skillfully vaunted nostrums. The one unfortunate situation is instead of being Pharmacopeia-minded, the physician is too frequently a nostrum-guided practitioner.

We should look with advantage for guidance to hospital clinicians and pharmacologists, trained to accurate observation, who in the vast majority of cases possess advantages over that of the general practitioner not nearly so well situated for controlling his patients and not usually so well trained in accurate observation.

The reaction against the truly disgraceful condition which formerly prevailed in therapeutics resulted in the awakening of physicians to the importance of the Pharmacopeia, and it becoming better known to the medical profession.

With it all an impetus is needed further to arouse in physicians a livelier sense of responsibility in the matter of revision. Despite the indifference on the part of physicians, many of whom know practically nothing of the Pharmacopeia, its origin and its many excellent features, we constantly hear them sneer at its imperfections.

There are many of the opinion that the medical profession should select the substances which enter into the Pharmacopeia, and that the pharmaceutical profession should provide the descriptions of these substances, necessary tests, and methods for making the preparations.

Be that as it may, the medical profession should show concerted action in regard to the revisions of the Pharmacopeia.

SOUTHERN MEDICAL ASSOCIATION

The twenty-seventh annual meeting of the Southern Medical Association will be held in Richmond, Va., Nov. 14 to 17, 1933, and a post meeting day in Washington, D. C., November 18.

The *Southern Medical Journal*, the journal of the Association, for August, contains an introductory notice of the meeting, and a delightfully written article on "Richmond's Confederate Epoch," by the editor of one of the local newspapers. From all angles, the article referred to seems incomplete, without any reference to Hunter McGuire.

At the time ominous clouds incident to the Civil War were appearing, Richmond's most distinguished surgeon, the late Hunter McGuire, was in Philadelphia interested in graduate work. At that period there were a number of southern boys enrolled in the medical schools of Philadelphia. Dr. McGuire assembled the group and succeeded in marshalling them back to the Southland.

It will be recalled that Hunter McGuire became surgeon general of the Confederate Army, and was the first in the history of war of any nation to arrange for the exchange of medical officers who had been captured.

McGuire's loyalty to and friendship for his military chief, "Stonewall" Jackson, is one of the romances of the conflict. On one side of the "square" at Richmond is a statue of Jackson, and on the opposite side is one of McGuire. We

often wonder, if they could talk, what they might have said in the middle of the night, when they saw the boys in khaki pass by, embarking for overseas service in the World War.

Richmond should prove an attractive convention city.

RESOLUTIONS ADOPTED BY THE NATIONAL MEDICAL ASSOCIATION

The following resolutions were adopted at the annual meeting of the National Medical Association, consisting of Negro physicians, held at Chicago, Aug. 14 to 19, 1933.

WHEREAS, We are now in the midst of a social revolution in which radical changes are being made in our social and economic structure, and

WHEREAS, The relation of the physician to this significant movement has been thoroughly studied and changes of a profound and far-reaching character in the practice of medicine, as we now know it, are imminent, and

WHEREAS, The Negro physician and dentist have been given no special study, and

WHEREAS, The Negro physician and dentist are now suffering inordinately from the unfair competition of governmental agencies, free dispensaries, and other agencies extending free medical care in numerous instances to persons who heretofore have employed and paid physicians of their own choice for this service, and

WHEREAS, The various proposals for group or hospital insurance, because of these same reasons, are fraught with great significance to the average physician not holding staff position estimated among the entire profession at 50 per cent and among Negro physicians at a ridiculously smaller figure, and

WHEREAS, In the proposed plans for further development in these changes by reason of the exclusion of Negro physicians from hospital staffs, governmental and public health staffs, his injustices and suffering will be far greater and more gravely threaten his already precarious existence, be it

Resolved, That the N. M. A. declares its sincere interests in and its coöperation with any movement looking to improvements in contemporary medical practice, and be it further

Resolved, That we declare our belief the welfare of 4000 Negro physicians and dentists should not be ignored in any proposed changes of such far-reaching character, and be it further

Resolved, That we insist in any group or hospital insurance plans the interests of the Negro physicians and dentists along with those of the average general practitioner who still should remain the central figure in medical practice must be protected, and be it further

Resolved, That we protest the continued exclusion of the Negro physician from these governmental health agencies now so rapidly expanding and including to an increasing degree various phases of medical practice.

PREPARATION FOR NATIONAL DEFENSE

The medico-military course of inactive duty training for Medical Department Reserve officers, which has been held at the Mayo Clinic during the past 4 years,

will again be held this year from October 1 to 14, inclusive. This inactive duty training will follow the plan so well worked out under the auspices of Col. George A. Skinner and the military features will be under his personal supervision.

This type of military medical training is now well established and has proved its worth during the past 4 years. The course offers valuable and interesting training for the Medical Department officers of all the components of our national defense. The staff and faculty of the Mayo Clinic have again placed their unexcelled facilities at the service of their Government in the interest of preparedness, and have extended an invitation to all the services to participate.

This short course is equally applicable to general practitioners and specialists. The morning hours are devoted to purely professional subjects selected by the student officers. The afternoon hours pertain solely to medico-military subjects and the evening hours are covered in a lyceum course of general interest.

Application for this course of inactive duty training should be made to the Corps Area Surgeon, Seventh Corps Area, Omaha, Neb. Applications should state the character of the work the candidate desires to follow in the morning hours. All student officers are expected to attend and participate in the afternoon and evening sessions. Each applicant should fully understand that the invitation to accept this course of study without charge is extended by the Mayo Clinic; that the project is without expense to the government; and that 100 hours' credit will be given those who take and complete the course. While it is desirable to attend the entire course, those whose time will not permit this, may join or leave at any time and will receive credit for the hours spent in training. Uniforms are optional.

PHILADELPHIA CANCER MEETING

Program for the Meeting of the Commission on Cancer, Philadelphia, Nov. 15, 1933, at The American Oncologic Hospital, Powelton Avenue at 33d Street, Philadelphia.

- 9:30 a.m.—Subject to be announced later.
Joseph McFarland.
- 10 a.m.—Demonstration—change from benign to malignant epithelioma of skin.
Fred D. Weidman.
- 10:15 a.m.—Technic of filtration and intravaginal and uterine irradiation.
S. E. Tracy.
- 10:30 a.m.—Tumors of the kidney.
Frederick A. Bothe.
- 10:30-11 a.m.—Five and ten-year-old results of treatment of nevii and hemangiomas.
William S. Newcomet.
- 11 a.m.-1 p.m.—Clinical Conference. Presentation of cases of carcinoma of breast, skin, mouth, tongue, larynx and nasal cavity.
Albert E. Bothe, Frederick A. Bothe, John W. Bransfield, Charles A. E. Codman, Hermann Churchill, George M. Dorrance, John H. Gunter, Ellis Given, Brady A. Hughes, Carl Koenig, P. E. Loudenslager, John B. Ludy, Joseph McFarland, William S. Newcomet, Stanley Reiman, Edgar W. Spackman, William H. Spencer, and Fred Weidman.

Luncheon.

Radiological and Surgical Division

2 to 2:30 p.m.

- The value of standardization of roentgen-ray equipment.
Mr. J. L. Weatherwax.
- Management of late carcinoma of the rectum; radiological aspect, Dr. Newcomet; and surgical aspect, Dr. Dorrance.
- Indications for interstitial irradiation.
Dr. Hughes.
- Diagnosis of diseases of breasts, roentgen-ray films.
Drs. Newcomet and Paul Seabold.
- Presentation of roentgen-ray films for diagnosis.
Drs. Spackman and Koenig.
- Management of carcinoma of the stomach.
F. A. Bothe.
- Demonstration of a 4-gram radium bomb.
Dr. Dorrance.

Pathological Division

2 p.m.

- Subject to be announced later.
Joseph McFarland.
- Prognosis of tumors from a pathologic point of view.
Stanley Reiman.
- Prognosis of tumors from a histologic point of view.
Clarke Brown.
- Subject to be announced later.
Hermann Churchill.
- Discussion of borderline cases.
Stanley Reiman.
- Presentation of pathologic slides for diagnosis and general discussion. Members are invited to bring unusual or interesting specimens, slides, or roentgen-ray films for diagnosis and discussion.

8 p.m.

- Dinner—Business meeting.
Jonathan M. Wainwright.

Misuse of the Word "Drug"

Attention has recently been called to the indiscriminate use of the words "drug," "narcotic," and "dope." As defined in the National Food and Drugs Act, a drug is an article used for the purpose of curing, mitigating, or preventing disease in man or other animal.

Physicians as well as newspaper writers have incorrectly referred to the "drug addict," or "drug fiend," when reference was intended to the use of some narcotic usually referred to as "dope." The members of the pharmaceutical profession do not object to the publication of the misdeeds or misdemeanors of "dope peddlers" or "dope addicts" but to describe them as "drug peddlers" or "drug addicts" does an injury. Physicians, therefore, are requested to discontinue the use of the word "drug" where the word "dope" or "narcotic" should be employed. Assurance has been given by editors of newspapers the subject will have their serious consideration.

The practice is widespread in medical and pharmaceutical literature. Nearly every one having to do with such publications has been guilty of misuse of the word "drug," even those of us who seek a discontinuance of the abuse.

The request is reasonable. The coöperation of all physicians will be of material aid in correcting an objectionable practice.—Editorial, *J. Kansas M. Soc.*, February, 1933.

WHO IS DR. LOCKE?

Some of our members are asking who is Dr. Mahlon W. Locke. Dr. Locke, age 53, is the man who made of the cross-roads town of Williamsburg, Ontario, the resort of tens of thousands of people from all over the world. He has lived there all his life; he has practiced there as a doctor for 20 years; for 8 or 10 years he has been sought by the outside world. He does things with his hands to cure defects in people's feet.

He took a postgraduate course at Edinburgh University and as a part of this did a good deal of work on the feet of the Edinburgh police force. When he came home and settled down to country practice he applied to local cases the things he had learned. Then a newspaper man from Watertown, N. Y., chanced to come to him and went away and returned with Father Corrigan of Watertown, another patient. And the story began to spread that here was an orthopedist who had an unusual gift. One day last summer cars from 37 states were counted near his house. Patients have come to him from England, Ireland, France, South Africa. He has had as many as 1685 patients in a day. The average in summer will be about 1200 a day. He makes his examinations at the rate of 3 a minute, sitting in a swivel chair in his dooryard. People come for the day, the week, or stay for months. The town of 400 people, 40 miles from Ottawa, sees that those who stay are not overcharged for food or lodging. The doctor's fee is a dollar a day, usually 2 treatments in the day. People arrive often on crutches or in wheel chairs. Sometimes they are able to walk before they leave. Bones are manipulated, blood supply is given free course, tissues are revived, and the patient improves.

It has been the doctor's conviction for years that weak arches, fallen arches, flat bone displacement, and incorrect posture were the causes of such ailments as arthritis, rheumatoid arthritis, synovitis, neuralgia, neuritis, and myositis. He believes that once the bones are restored to normal position and are maintained in that position, nature will complete the cure in time.—*Boston Evening Transcript*, June 28, 1933.

COMMENTS AND EXCERPTS

Science and Research

In the April issue of the *Naval Medical Bulletin*, Lieut. Comdr. H. R. Delaney, of the Naval Dental Corps, states the "orgies of tooth extraction" as a means to remedy bodily infections ascribed to diseased teeth are on the decline. According to Dr. Delaney, a number of diseases formerly associated with focal infection are now attributed to nutritional unbalance. Dr. Delaney observes: "It is impossible to close all the avenues through which bacteria can enter the blood stream, such as the intestinal and genito-urinary tracts, and the nose and its accessory sinuses. The defensive mechanism must be relied upon to maintain health balance if we can eliminate known areas of infection."

In a report to the American Physical Education Association, Dr. C. E. Turner, of the Department of Biology and Public Health, Massachusetts Institute of Technology, declared that at the present rate, more public school children will go to hospitals for the mentally ill than will go to college. Dr. Turner advised that the schools not reduce too drastically their health and physical education budget, and said: "Our people need play and relaxation more than ever before. In the hospitals of the United States there are more patients

suffering from mental diseases than from all other diseases combined.

"The excitement and pressure of modern life have increased together with the number of facts children must learn and the number of adjustments they must make. Every social indication points to the need of physical and recreational activity under wise leadership—a physical activity program which will develop enjoyment of exercise, skill, and the proper mechanical use of the body."

Dr. Zachary Sagal, Jerome A. Marks, and John L. Kantor, of New York City, recently reported to the American Gastro-Enterological Association that very acid conditions of the stomach are associated with youth and if found in old age are an index to a long life. These physicians come to this conclusion after determining the amount of hydrochloric acid and other acids in the stomachs of nearly 6,679 patients having symptoms of digestive disorders. Some of the interesting findings of these investigators are: Age is the dominating factor in gastric acidity. The greatest percentage of high stomach acidity was found in the fifth decade of life. Diminishing amount of acid in the stomach might be considered an indication of approaching old age, such as loss of hair and teeth, diminishing activity of the glands of internal secretion, and hardening of the arteries.

Sex is also found to be a factor. Men have a higher degree of stomach acidity at all ages than women.

Certain diseases are associated with certain ranges of acidity of the stomach; as duodenal ulcer, high acidity; and with cancer and anemia, hydrochloric acid is absent.

According to an article in the July, 1933, *Journal of the Association of American Medical Colleges*, several medical schools have adopted the examinations of the National Board of Medical Examiners instead of their own semifinals and finals. For instance, the School of Medicine of Yale University requires that all students take the National Board examinations provided that they passed the Yale comprehensive examination held at the end of the second and fourth years, respectively. Members of the Board grade the papers. Duke University School of Medicine requires all its students to take the Board examinations, but grades the papers for its own purposes before sending them to the Board. For several years the College of Medical Evangelists has used the Board Examinations, but grades the papers. The University of Minnesota Medical School allows its students to take the Board examinations or its own comprehensive examinations. It does the grading of the papers. Beginning with next year Georgetown University School of Medicine will require its senior students to take the Board examination in place of its customary finals.

The medical schools of the universities of Iowa, Illinois, Columbia, Colorado, Buffalo, and Washington are considering adopting the plan of using National Board examinations.

In a report to the American Association for the Advancement of Science, Dr. George Crile, of the Cleveland Clinic, states that more than a million surgical operations a year are now performed in the United States, with few resulting deaths. Dr. Crile, in describing the achievements of the past century, said that 100 years ago there were no surgical dressings; the roentgen ray was undiscovered; there was no skin grafting; tonsils were not removed; brain tumors were not disturbed; there was no operation to remove

gallstones; infection was not controlled. The surgeon of that time depended on a swift knife and a hot iron, a steady hand, and quick intuition. To quote Dr. Crile: "It was the art of a swordsman rather than of a scientist." Dr. Crile predicts that in the coming century there will be fewer operations, for biochemistry and biophysics will tend to supplant the surgeon's scalpel.

According to *Science News Letter*, the present epidemic of encephalitis lethargica raging in and around St. Louis is the worst in the history of the disease. In previous outbreaks elsewhere not more than 20 or 30 cases have been reported in one place.

The number of deaths reported to the Public Health Service officials, according to *United States News*, from the present epidemic in St. Louis increased from a total of 53 on August 31 to 98 on September 9, and the number of cases rose from 399 to 635.

The most striking discovery which has been made in connection with research on the causes of the disease is that of Margaret Smith, a pathologist working with the St. Louis committee. Dr. Smith has announced to the St. Louis Medical Society that in more than half of the specimens examined she found a microscopic formation known as inclusion bodies. The first encouraging results in the attempt to induce the disease in monkeys were reported from St. Louis, September 8, by R. S. Muckenfuss, assistant professor of medicine of Washington University Medical School; H. A. McCordock, associate professor of pathology; and Charles Armstrong, of the Public Health Service. In their report to the Public Health Service they state that 6 monkeys have shown symptoms similar to encephalitis in humans after being inoculated with material from dying patients.

"Died Following Operation"

This phrase which has appeared with certain modifications from time to time in the daily press has been a source of irritation to a great many of our surgical friends. And rightly so, since the implication has been that the operation killed the patient who would otherwise have lived long and happily. The following is from the versatile and facetious pen of a friend of the medical profession, Malcolm Bingay, editor of the *Detroit Free Press*. Mr. Bingay has more than made amends, so far as he is able to control the situation editorially.

"A medical friend of mine called my attention to a grave mistake very frequently made in all newspaper offices. (No pun intended on 'grave mistake.') Very often the thoughtless reporter or copy reader will say that somebody 'died from an operation.' It is part of the colloquial speech of people in all walks of life—outside the medical.

"To say that a person 'died from an operation,' is to imply one of two things: either the doctor was guilty of malpractice or murder. People die while undergoing an operation in an attempt to save their lives. That is the kindlier and more accurate way of saying it.

"No doctor or surgeon of any intelligence or standing in his profession suggests an operation—major—unless he feels that it must be performed either to save the life or make life bearable to the patient. Contrary to the cynically uninformed, surgeons are not sadists; they find no joy in cutting. They perform miracles of mercy and when, in a battle against Death, the old Grim Reaper happens to win, it is unfair and lacking in sportsmanship to say or write that the patient 'died

from an operation.'"—Editorial, *J. Michigan M. Soc. March, 1933.*

MEDICAL ECONOMICS

Federal Money Aids in Medical Relief

According to a rule promulgated, June 23, by the Federal Emergency Relief Administration, state emergency relief administrators must provide adequate medical service for persons on relief rolls. The administration has now issued rules, which appear as *Miscellany* (page 1026, *J. A. M. A.*, Sept. 23, 1933) showing how this is to be done. (The article referred to appears below.) Money granted to the states from the federal emergency relief fund may be used to pay for medical services and supplies for patients in their homes. All hospital expenses must be paid for from state or local funds. Federal money is not to be used to support existing medical, dental, and nursing relief services but only to augment those services. State and local relief agencies are expected to operate through agreements with the organized medical, dental, and nursing professions, state and local. Within legal and economic limitations, the traditional relations between patients and their physicians, dentists, and nurses are to be maintained. Professional services rendered patients on relief rolls must be of the same type as those rendered private patients and are to be paid for at agreed rates, due allowance being made for the conservation of relief funds. The common aim, as stated by the administration, is the provision of good medical service at low cost, to the benefit of the indigent patient and the physician, nurse, dentist, and taxpayer. It is hoped that physicians will enter heartily into the spirit of these rules and join with the federal, state, and local relief agencies in making them effective.—(Editorial) *J. A. M. A.*, Sept. 23, 1933.

Rules and Regulations Governing Medical Care Provided in the Home to Recipients of Unemployment Relief

The Federal Emergency Relief Administration, Washington, D. C., makes available the following statement as a guide to its personnel and to the public:

The following regulations, governing the provision in the home of medical care (includes "medicine, medical supplies, and/or medical attendance") to persons eligible for unemployment relief, are hereby established.

1. *Policy*.—A uniform policy with regard to the provision of medical, nursing, and dental care for indigent persons in their homes shall be made the basis of an agreement between the relief administration and the organized medical, nursing, and dental professions, state and/or local. The essence of such a policy should be:

(a) An agreement by the relief administration to recognize within legal and economic limitations the traditional family and family-physician relationship in the authorization of medical care for indigent persons in their homes; the traditional physician-nurse relationship in the authorization of bedside nursing care; the traditional dentist-patient relationship in the authorization of emergency dental care; and

(b) An agreement by the physician, nurse (or nursing organization) and dentist to furnish the same type of service to an indigent person as would be rendered to a private patient, but that such authorized service shall be a minimum consistent with good professional judgment and shall be charged for at an agreed rate

which makes due allowance for the conservation of relief funds.

The common aim should be the provision of good medical service at a low cost—to the mutual benefit of indigent patient, physician, nurse, dentist and taxpayer.

The policy adopted shall be to augment and render more adequate facilities already existing in the community for the provision of medical care by the medical, nursing and dental professions to indigent persons. It shall imply continuance in the use of hospitals, clinics and medical, dental, and nursing services already established in the community and paid for, in whole or in part, from local and/or state funds in accordance with local statutes or charter provisions. Federal emergency relief funds shall not be used in lieu of local and/or state funds to pay for these established services.

The phrase "in their homes" shall be interpreted to include office service for ambulatory patients, with the understanding that such office service shall not supplant the services of clinics already provided in the community.

2. *Procedure.*—A uniform procedure for authorization of medical, nursing, and dental care in the home shall be established by each state and/or local emergency relief administration. This procedure shall not be in conflict with the following requirements:

(a) *Written Order.*—All authorizations for medical, nursing and dental care shall be issued in writing by the local relief officer, on the regular relief order blank, prior to giving such care; except that telephone authorization shall immediately be followed by such a written order; and provided that authorization for bedside nursing care shall be based on a recommendation by the attending physician, in cases where a physician is in attendance, who shall certify to the need for nursing service as part of the medical care. Authorizations for medicine and medical supplies shall also be issued in writing and, in general, such authorizations shall not be issued except on written request of the physician authorized to attend the person for whose use they are desired.

(b) *Acute Illness.*—Authorizations for medical care for acute illness shall be limited to a definite period and a maximum expenditure or number of visits (*i.e.*, not more than two weeks or ten visits), according to the standard agreement made between relief officials and physicians under regulation 1. Medical care in excess of this period shall not be authorized until after a re-investigation of the case in the home by the local emergency relief administration.

(c) *Chronic Illness.*—Medical care for prolonged illnesses, such as chronic asthma, chronic heart disease, chronic rheumatism, diabetes, etc., shall be authorized on an individual basis, and, in general, visits shall be limited in frequency (*i.e.*, not more than one visit per week for a period not exceeding two or three months) by agreement. Nursing care for such chronic illnesses shall, in general, be authorized in accordance with the need for such care as indicated by the attending physician. If necessary, more frequent visits, by the physician or nurse, for an acute attack, occurring in the course of a chronic illness, may be authorized. Care for chronic illness authorized under this section shall supplement and not supersede existing community services, such as visiting nursing service or institutional care.

(d) *Obstetric Care.*—Authorization for obstetric service in the home shall include an agreed minimum number of prenatal visits (where possible), delivery in the home, and necessary postnatal care. Due caution shall be exercised that this authorization for delivery

in the home does not involve undue risk to the patient for whom hospital care may be imperative. The physician authorized to attend the confinement in the home shall be responsible for certifying to the local relief administration that, in his professional judgment, delivery in the home will be safe.

(e) *Special Services.*—Medical and nursing services not covered above shall be authorized on an individual basis, subject to the general provisions of the agreement made under regulation 1. Special dental service shall be subject to a similar procedure.

Medical care shall not ordinarily be authorized by relief administrations for conditions that do not cause acute suffering, interfere with earning capacity, endanger life, or threaten some permanent handicap that is preventable when medical care is sought.

(f) *Accessory Services.*—Emergency dental care and bedside nursing service, for indigent persons in their homes, may be authorized subject to the existing general policy of the state and/or local relief administration.

(1) Dental care shall, in general, be restricted to emergency extractions and repairs. Dentists and dental care shall be subject to the same general restrictions indicated for physicians under regulation 1.

(2) Bedside nursing care, where authorized, shall conform to a procedure comparable to the one outlined for physicians above and shall be provided under an agreement made between relief administrations and nursing organizations, state and/or local, under the same principles suggested for physicians under regulation 1. Standards of accredited local nursing organizations shall be followed by nurses giving authorized bedside nursing care to indigent persons in their homes. Such authorized bedside nursing care shall not supersede or supplant existing local official services giving such care under the provisions of local law.

(g) *Fee Schedule.*—The agreement between the state and/or local relief administration and the organized professional groups of physicians, nurses and dentists, state and/or local, established under regulation 1, shall include a fee schedule covering the basic and special services outlined in sections (b) to (f), inclusive, of this regulation. In the interests of simplified accounting it is suggested: That a flat rate be established, on a per visit basis for the usual care given to acute and chronic illness (sections (b) and (c) above), for attendance at confinement (section (d) above), for emergency extractions (section (f) above), and for a bedside nursing visit (section (f) above); and that all special services (medical, nursing, or dental) be covered by an agreed reduction from the usual minimum fee schedule for such services with an agreed maximum fee. A recognized differential in fee shall be established between a home and an office visit. All fees shall be established on the basis of an appreciable reduction from the prevailing minimum charges for similar services in the state and local communities, with due recognition of the certainty, simplicity, and promptness of payment that authorization from the local relief administration insures. This schedule shall only apply where the expenditure of federal relief funds is involved and shall not preclude the payment of additional amounts from local funds.

Where bedside nursing care is authorized, the flat rate per visit shall be established by agreement at not to exceed the certified cost per visit established for accredited visiting nursing organizations in the state or local district.

(h) *Bills.*—Physicians, nurses (or nursing organizations), and dentists who are providing authorized medi-

cal care to indigent persons in their homes shall submit to the local relief official, monthly (within ten days after the last day of the calendar month in which such medical care was provided), an itemized bill for each patient. Each bill shall be chronologically arranged and shall contain at least enough information to permit proper audit (*i. e.*, name, age, and address of patient; general nature of illness or diagnosis; whether home or office treatment; dates of service; and status of case at end of month—cured, sent to hospital, dead, needs further care, *etc.*) Bills for medical care shall be accompanied by the original written order for such care, except for cases in which medical service under an authorization has not terminated during the calendar month covered by the bill, in which cases the bill shall show, in addition to the details required above, the date and serial number of the outstanding order. Retroactive authorizations shall not be issued or honored for payment.

Bills for special and accessory services, outlined under sections (e) and (f) above, shall give full details of such services, and bills for medicines and medical supplies, under (i) below, shall be subject to the same general requirements. Bills for drugs shall list the name and quantity of each. The formula and number of each prescription costing more than 25 cents shall be submitted with or made a part of the pharmacist's bill.

Note: The submission of bills and their audit and authorization for payment will be simplified if the state emergency relief administration provides a suitable bill form.

(i) **Medicine and Medical Supplies.**—Physicians providing authorized medical care to indigent persons shall use a formulary which excludes expensive drugs where less expensive drugs can be used with the same therapeutic effect. When expensive medication is considered essential by the authorized attending physician, it may be authorized after consultation with the local medical advisory committee.

Prescriptions for necessary drugs and medicine shall be restricted to the National Formulary or the United States Pharmacopoeia. To avoid excessive expenditures for remedies of unknown or doubtful value, proprietary or patent medicines shall not be authorized.

State and/or local relief officials are urged to make trade agreements with pharmaceutical organizations and druggists for uniform or reduced rates for prescriptions.

Authorizations for medical supplies shall be restricted to the simplest *emergency* needs of the patient consistent with good medical care.

In general, authorizations for medicine and medical supplies shall not be issued except on written request of the physician authorized to attend the person for whose use they are desired.

3. **Authority.**—The state emergency relief administration, responsible for the distribution of federal and state emergency relief funds to local relief administrations, shall give approval to such statements of policy, proposed fee schedules, and detailed procedures, governing the provision of medical, nursing and dental care in the home to recipients of unemployment relief, as may be established by state and/or local relief administrations, in accordance with the provisions of regulations 1 and 2, above, before such policies, schedules and procedures shall take effect. It shall be the responsibility of the state emergency relief administration to formulate a program of medical, nursing, and dental care for indigent persons in their homes, which shall not be in conflict with the provisions of regulations 1 and 2, above, and to make sure, by giving or withholding approval, that analogous programs formulated by local

relief administrations shall not be in conflict with such state program.

(a) **State and Local Professional Advisory Committees.**—State and local relief administrations shall request the presidents of the state and local medical, nursing, dental and pharmaceutical organizations, respectively, to designate an existing committee or appoint a special committee, to advise them in the formulation and adoption of adequate programs for medical, nursing and dental care in the home for indigent persons. The relief administrations shall be responsible for the final adoption of such programs. The medical, nursing, dental, and pharmaceutical advisory committees can assist these administrations in maintaining proper professional standards and in enlisting the cooperation of the constituent, professional membership in such programs. Local medical, nursing, and dental programs submitted to the state relief administration for approval should be submitted to the appropriate professional advisory committee for comment, before final approval is given. The appropriate professional advisory committees should be consulted by relief administrations with regard to disputed problems of medical, nursing, and dental policy and practice.

(b) **Licensed Practitioners of Medicine and Related Professions.**—When a program of medical care in the home for indigent persons has been officially adopted, participation shall be open to all physicians licensed to practice medicine in the state, subject to local statutory limitations and the general policy outlined in regulation 1, above. Physicians authorized by relief officials to give medical care under this program shall have accepted, or shall be willing to accept, the regulations and restrictions inherent in such a program. In order to provide adequate medical care it may be desirable for local relief officials to maintain on a district basis a list or file of physicians in the community who have agreed in writing to comply with the officially adopted program. Such a list of physicians should also facilitate a more equitable distribution of orders for medical services.

A similar policy and procedure shall be followed in the preparation of approved lists of nurses, dentists, and pharmacists. Licensure and/or registration to practice their respective professions in the state shall be a prerequisite to approval of graduate nurses, dentists and pharmacists for authorized participation in the officially approved state program for the provision of medical care for indigent persons in their homes.

(c) **State Program for Medical Care to Indigent Persons in Their Homes.**—When the state emergency relief administration has adopted a uniform program for medical, nursing, and dental care for indigent persons in their homes, in accordance with these rules, a copy of such program, including the statement of policy, fee schedules, and detailed procedures, shall be filed immediately with the Federal Emergency Relief Administration.—*J. A. M. A., Sept. 23, 1933.*

Group Hospital Insurance

Because of the fact that so many advocates of group hospital insurance have presented their plans both by personal interviews and by literature, the Executive Committee of the Indiana State Medical Association thought it advisable to obtain information from nationally known insurance companies as to the soundness and the feasibility of such plans.

Letters were sent to the presidents of some ten of the largest insurance companies of the country, and the article which appeared in the August issue of the *Jour-*

nal of the Indiana State Medical Association, based on the facts obtained from answers to these letters along with excerpts from the letters on the subject of group hospitalization, follow:

"Stop, Look, Listen" was the warning sent to the county medical societies by the officers of the Indiana State Medical Association last winter when schemes for group hospital insurance came so thick and fast that they almost snowed under the headquarters office. The result of this timely warning has been that despite many visitations from self-admitted group hospitalization experts, despite much oratory on the part of high-pressure salesmen offering hospital care to individual subscribers for as low as \$6 a year, no reputable hospital in Indiana so far as they know at headquarters office, has "fallen" for the idea and no such plan yet has gained headway in Indiana.

Each plan presented has been considered carefully by the Executive Committee. The very carefully prepared and detailed studies advocating group hospitalization by the Council on Community Relations and Administrative Practice of the American Hospital Association, and the more recent brochure entitled "Hospital Care in the Family Budget" by C. Rufus Rorem, Ph.D., C.P.A., consultant on group hospitalization for the American Hospital Association, the principal spokesman for group hospitalization, were studied. Dr. Rorem (he is not a physician) is connected with the Julius Rosenwald Fund of Chicago and is said to advocate group hospital insurance plans under the direction of the backers of the Committee on Costs of Medical Care, whose majority report just didn't "click" with the public and despite showmanship, ballyhoo, publicity and even semi-governmental backing, now is almost as forgotten as the Wickersham Report.

As in the case with the majority report of the Committee on the Costs of Medical Care, strenuous efforts are being made to high-pressure the profession into giving its "OK" to these various insurance plans. Some hospital superintendents in Indiana enthusiastically advocate these plans and maintain that it not only is none of the business of the profession what the hospitals do, but that the hospitals sooner or later are going to undertake hospital insurance whether the physicians like it or not.

A marked characteristic of all these plans presented to date to the headquarters office of the State Association is a complete lack of any figures or statistics. The advocates all are sure that such a plan will work and point to several communities where they claim they are working, but for the most part these advocates are long on promises and short on actual figures. It is also noticeable that none of the larger insurance companies is among those advocating these plans. Naturally the question arises as to what if any figures have been collected on the subject, what if any has been the experience of nationally known insurance companies with this kind of insurance, and, if these insurance plans are sound why some of the major companies do not get into the field?

With this in mind, the following letter was written to ten of the major companies of the country:

"For the past several months many persons have advocated a partial payment plan to take care of hospital costs of patients. These various plans for group hospitalization have been put forth by organizations which are not nationally known. The feeling of the officers of the Indiana State Medical Association is that if such plans are worthwhile and economically sound, your

company or some one of the larger insurance companies would have entered this field of insurance.

"Has your company made any study or do you know of any studies that have been made by insurance companies which would throw light upon the soundness of such a plan which would enable individuals of a community to receive hospital insurance for from \$12 to \$30 a year?"

As a matter of fact, this letter is most liberal, as in most of these schemes annual payments range from \$6 to \$12.

Without exception there is nothing in any one of these letters from these major companies which would give one a basis to advocate such a scheme of insurance with confidence. Excerpts from these letters having to do with this subject follow:

June 14, 1933.

It must be recognized that the incidence of disease or accident requiring hospital treatment is not steady enough to be relied upon as a basis for premiums. This company is not interested in hospital insurance.

EDWIN H. ALLEN, M.D., *Medical Director,*
John Hancock Mutual Life Insurance Company,
Boston.

June 13, 1933.

I know of only one company that tried the kind of insurance to which you refer, and it was not, however, very successful. My recollection is that so many lawsuits arose out of the plan that it was abandoned.

_____, *Second Vice-President and Actuary,*
_____, *Mutual Life Insurance Company.*

(Preferred not to have name of company used.)

"While we have never made a detailed study of the subject of hospital insurance, it is our understanding that none of the larger life or accident and health companies is issuing this type of coverage. We do know that at one time 1 or 2 of the companies attempted to issue what was known as hospital indemnity coverage, but they found that they were not able to carry the insurance at other than a distinct loss on the cost basis which they had promulgated. They were of the opinion, also, that it would be unsatisfactory to attempt to sell the coverage at what they considered adequate premiums, because these premiums would be prohibitive in most cases."

D. C. MACEWEN, *Vice President,*
The Pacific Mutual Life Ins. Co., Los Angeles, Calif.

".....as this company has never provided for hospitalization benefits in any of its contracts we have no experience as to what the cost might be."

JAMES F. LITTLE, *Second Vice-President and Associate Actuary,* *Prudential Ins. Co., Newark, N.J.*

"....We have not seen any indications which would throw light on the soundness of a plan that would enable individuals of a community to receive hospital insurance for \$12 or \$30 a year, and our opinion is that only the medium, high class persons of a community could be covered at that price. Our experience for the last two years as a health and accident company is that we ought to be more properly classed as a Red Cross Society or a Community Chest."

C. P. ORR, *President,*
Southern Life and Health Insurance Company,
Birmingham, Ala.

"Our company, although on various occasions has given considerable study and thought to the underwriting of an insurance plan of the type suggested in your letter, has never felt that the underwriting of such a plan of insurance would prove sound or satisfactory."

L. J. FROELICH, *District Group Supervisor,
The Travelers, Pittsburgh, Pa.*

"...at different times some consideration has been given to the type of insurance mentioned in your letter, but we have always felt that it would be a type of insurance that would involve so much risk that we did not feel it would be practical from our standpoint."

F. ASBURY DAVIS, *President,
U. S. Fidelity and Guaranty Company, Baltimore, Md.*

"...we have not made an exhaustive study of such plans but those that we have reviewed have not appealed to us particularly, either from a standpoint of public policy or benefit or as a matter of insurance coverage....it has appeared to me that there might be a very considerable selection against the hospital concerned in that the public were not entering as a whole or in a large group but in reality as individuals which provides an opportunity for those greatest in need of such service, from a physical standpoint, to obtain its benefits while those who may be less apt to need medical attention may not enter, thereby increasing the cost over that which might be sustained on the average were all to enter."

_____, *Medical Director,
(A large established Accident and Indemnity Company.)*

"Our association, which is composed of over 80 companies writing personal accident and health insurance, has given the subject of hospital insurance considerable study during the past few months.

In general, our companies do not think it feasible at the present time to enter into the field of hospital insurance. Many of our companies write a personal accident and health policy contract providing for a limited amount of hospital indemnity, which is additional to the cash benefits paid for loss of time. This additional cash indemnity for hospitalization is limited in amount and is dependent on the condition that the policyholder be confined to a regularly licensed hospital.

"Some of our member companies have within the past two years added what is known as a medical reimbursement clause to their accident insurance (not sickness) policies which provide for the reimbursement of all hospital or medical expense incurred due to accidental injuries with a maximum limit. These medical reimbursement policies are new, but the companies have already made one increase in the rates for this coverage because loss ratios were higher than anticipated and it is the belief of many that within a short time the rates will again be increased. Neither of these types of policies is comparable to the group hospitalization coverage. The group hospitalization plans now being effected in many parts of the country do not include cash benefits for loss of wages.

Through some rather sad experience our companies had a few years ago with a so-called hospital expense only policy (the loss ratios were terrific and the companies withdrew from the field) our companies are now reluctant to enter into this field again. The selection is against the company and if adequate premiums are charged for such coverage the policies are not salable.

It is entirely possible that a majority of the hospital

plans now in effect will prove to be successful, because more and more experience will be available as to what constitutes adequate premiums, and also the hospitals have a very vital interest in making these plans successful.

Two of our member companies have already entered into contracts with either hospital groups or medical groups for insurance of this type, but most of our companies prefer to wait until more adequate experience can be collected on the already existing hospital plans before entering this field.

In answering your inquiry whether \$12 or \$30 would be an adequate premium for group hospitalization coverage, I would have to know the indemnity provided and the restrictions or limitations placed on a contract before I could even estimate an accurate answer. I am informed that at the present time there is about a half day of hospitalization per insured risk per year and I believe the existing plans base their charges roughly on an expected loss ratio involving one whole day of hospital service per person per year. Personally, I doubt whether this is quite sufficient, as we in the accident and health insurance business know without any question that loss ratios increase tremendously on any new form of policy during the first four or five years. In other words, the average person with a new form of hospital policy does not become "insurance conscious" until he has had his policy a year or two—then the claims start to come in.

Very cordially yours,

HAROLD R. GORDON, *Executive Secretary,
Health and Accident Underwriters Conference,
Chicago.*

Physicians and the NRA

Under this title the following editorial was published in the Sept. 16, 1933, issue of the *J. A. M. A.*

A letter from Gen. T. S. Hammond, executive director, Blue Eagle Division of the National Recovery Administration (published on page 935, of the same issue *J. A. M. A.*) expresses his regret that recent editorials in the *J. A. M. A.* have indicated a "misunderstanding of the National Recovery Administration's policy toward doctors and dentists." The headquarters personnel of the American Medical Association has studied the National Industrial Act ever since it was introduced in Congress. It has also studied the President's Reemployment Agreement. The act is, by its terms, clearly limited to trades and industries. It is not applicable to the professions, except as they are integral parts of trades and industries, and the private practice of medicine does not come within that category. If Congress had intended the act to cover the professions, it easily could and presumably would have said so.

The phraseology of the President's Reemployment Agreement with respect to the professions is ambiguous. When the agreement provides for the exemption of professional persons who are employees, in certain favored communities, from restrictions as to hours of labor, it clearly implies that in all other respects and in all places professional persons as employees are subject to the terms of the agreement. However, the agreement purports on its face to have been promulgated by authority of section 4, subsection (a), of the National Industrial Recovery Act, and the authority there granted covers only trades and industries. The National Recovery Administration, moreover, has officially interpreted the President's Reemployment Agreement as not covering professional occupations.

Disregarding the strict letter of the law, however, and seeking to find ways in which it could best co-operate with the President in his effort to bring the Blue Eagle campaign to a successful issue, the American Medical Association has made personal contacts with representatives of the National Administration in Washington and has corresponded with the administration. It has studied all available interpretations of the National Industrial Recovery Act and of the President's Reemployment Agreement as they have been made public. It has sought information from other sources whenever and wherever practicable. The information thus obtained, including interpretations and instructions from official sources, the Association still finds difficult to weave into a consistent whole. On the basis of all information thus far acquired, however, including the information embodied in General Hammond's letter, the *Journal of the American Medical Association* now submits an outline of advice for the information and guidance of its readers.

As was said in a previous editorial, it is hoped that every physician and medical institution will enter into the spirit of this movement so as to assure its success.

Seven Months' Experience With Group Hospitalization Plan.—Wesley Hospital, Wichita, Kan., operates scheme individually and practically equals regular rates on patients hospitalized, despite some unsatisfactory features of program. John E. Lander, financial secretary of the hospital, states their contract entitles a certificate holder to 21 days of service a year. Roentgen ray, laboratory, and anesthetics are not included. These are paid for at regular rates. If a patient stays beyond 21 days, he is allowed a 25 per cent discount on the "overstay." Only 3 patients entered under certificate have stayed over 21 days.

This service began Oct. 1, 1932, and this report covers the period up to May 1, 1933, seven months. During that time the Service Sales Company sold 536 certificates at \$9 per year, plus \$1 membership fee. The sales company keeps \$3, plus the \$1, and remits daily to the hospital all moneys due.

The net premiums were \$4,656.75; earned premiums, hospital portion, \$899.25; sales company, \$449.62. The regular hospital charges on 22 cases hospitalized were \$1260.93; the earned premium was \$899.25; extras (roentgen ray, laboratory, anesthetics and net overstay) were \$341.22. This lacked only \$20.46 of paying for the cases hospitalized at regular hospital rates, or \$1260.93.

The contract can be improved. To make the matter function properly, group hospitalization should be a community affair, with all local hospitals included and a hearty approval given the cause by the doctors of the community.

The contract should undoubtedly be broadened to a family unit, placed upon a safe basis which will give the hospitals an even break with a reasonable reserve. Any excessive reserve should be allocated back to certificate holders in added hospital service. This would be a fine way to create good will and let the public understand that the plan is for the purpose of meeting a difficult situation and not a move for profit.

There are several ways of organizing for the sale of certificates. First, an outside organization may handle the sales end of the business. The hospitals might assume that responsibility. The doctors, through their local organizations, might carry on that work either alone or in conjunction with the hospitals. The best plan appears to be a debatable question and must be settled locally by those interested.

A fair, impartial, trustworthy selling organization, wherein the rights of all parties involved can be adequately cared for, is the thing desired.—*Hospital Management*, August, 1933.

Health Insurance.—The following specially written article on compulsory health insurance in Great Britain, appeared in the *Evening Bulletin* (Philadelphia, Pa.), Aug. 22, 1933. Compulsory health insurance in Great Britain has just come of age, to use the term commonly employed in the British press in reference to the completion of 21 years of life of the National Insurance Act of 1911. The occasion was marked by a tribute to David Lloyd George, who, as Chancellor of the Exchequer in the Asquith Government, piloted the measure through Parliament.

At a luncheon given in his honor the veteran statesman, now Father of the House, and past his 70th year, referred in humorous vein to the bitterness of the opposition, in and out of Parliament, to the measure. He alluded to the many mass meetings of protest against the measure, the regular keynote of the speakers being they "would not lick stamps for Lloyd George." The method of paying the contributions of the worker and his employer was by affixing stamps to the insured person's card.

Mr. Lloyd George recalled newspaper accounts of the protest meetings of the period, when it was declared that free Englishmen and Englishwomen were prepared to die rather than to bow down to a foreign tyrant from Wales (Mr. Lloyd George), when hisses for the Welsh melody of "Men of Harlech" which the organist happened to play, changed to cheers when the tune was switched to "Rule Britannia." Mr. Lloyd George recalled amid laughter the utterance of one fervid woman orator of that period that "in spite of all the Welsh attorneys in the world, Britons never would be slaves," and he added:

"That's the stuff. Politics were real fun in those days. In these decadent days in politics, no one is hated outside his own party." The allusion is to the acrid controversies in which he has recently been involved with other Liberal leaders, the latest arising out of the Welsh statesman's declaration for thorough-going agricultural protection.

The National Insurance Act was the second major piece of social welfare legislation of the pre-war Liberal administration, the first being the Old Age Pensions Act of 1908. The insurance bill was introduced by Mr. Lloyd George on May 4, 1911, and passed finally in December. It was accepted without change by the House of Lords, whose powers over legislation had been limited to a suspensive veto by Parliament Act, which had been put through after a bitter struggle during the period in which the Insurance Act was under consideration. The National Insurance Act became effective on July 15, 1912, although the payment of benefits did not become effective until the following January.

The act not only covered health insurance but embodied in its second part the first British unemployment insurance system put into effect. Its scope was limited. The unemployment insurance system was widely extended after the war, and by reason of the load it had to carry, taken far off its original actuarial basis. The health insurance scheme contained in the act covered not only medical attendance, but sickness, disablement, maternity and sanatorium benefits.

The act covered employed persons generally save public employees and certain other classes for which pension funds had already been established. Persons not em-

ployed at manual labor who received more than \$1000 a year annually are exempt, but all manual workers, regardless of the wage received, are included. Provision was made for voluntary inclusion in the plan by persons working for themselves or employed only casually. Voluntary contributors must be under 65, earning their own living and with income not exceeding \$800; but after five years' contribution they can continue in membership regardless of the amount of their earnings.

The insurance fund was constituted by contributors from the State, the employer and the employed man or woman. There has been some change in the figures of contributions and benefits since the original schedules. Workers' contributions are 18 cents weekly for a man and 17 for a woman. The employer contributes 9 cents per employee, and advances the stipulated sum to be paid by each worker, affixing stamps to the amount of the joint contribution to the worker's card; he is authorized to deduct from the pay envelope the amount due from the worker. The State pays a seventh of the cost of all benefits paid out to men and a fifth of all received by women. At the end of 1927 the number of persons insured under the act was 16 million. Liability to contribute ceases when the worker becomes 65 at which time he or she becomes eligible to an old age pension.

The sick standard benefit is \$3.75 weekly for men and \$3 for women. The disablement benefit is \$1.87 for both sexes. The maternity benefit is \$10; a woman is entitled to this sum on her husband's insurance and also her own, if she is separately insured. Benefits are paid at full rates only when the insured has regularly paid contributions for a specified period.

Medical attendance is given by physicians who volunteer for the work; they are placed on what is called the panel for the county or municipality. The insured is free to choose his own physician from among the panel doctors. The panel physician receives a fixed sum of \$2.50 annually for each person on his list of patients, physicians in rural districts receive also mileage allowance.

The act is administered by insurance committees set up in each county and in each municipality of 50,000 inhabitants or more. These committees must contain representatives of the medical profession. Benefits are paid for the most part through the Approved Societies of which the insured are members. These societies are chiefly of the "friendly type," such as undertook to pay sick benefits to contributing members before the State compulsory system came into vogue; their utilization to administer the government plan is one of the unique features of the Act. Certain extra benefits may be paid to members if the society is able to show an adequate surplus. Persons not members of a society approved, that is, qualified by Government to handle and administer benefit funds, contribute through the post office.

Unlike the unemployment insurance scheme, the health insurance plan has been held substantially to its original lines, so that Mr. Lloyd George at the anniversary banquet was able to maintain that it had always been able to show a surplus.

Regarding the workings of the system during its 21 years of life, the *London Times* prints an article, contributed by its medical correspondent. He regards the system as firmly established and says that its faults, and it has plenty, are proof rather of vitality than of weakness. While it is admitted that many other factors have been at work in the last 21 years promoting public health, he points out that since the panel system was

instituted the death rate has fallen sharply, and the infant death rate even more sharply. The "index of nutrition," known as tuberculosis, has diminished and the anemia of young women, known as chlorosis, has virtually disappeared, facts, he says, which indicate that at least the panel system has not inflicted injury on the national health. He asserts that, although the medical profession was virtually unanimous in opposition to the panel at the start, the doctors themselves now are "so much better off under the new system that their contentment, rather than their satisfaction, offers a target for criticism." One advantage he claims for the system is that as panel patients are free to seek medical advice the minute they feel they need it, the doctors are able to know the beginnings of disease and offer treatment when it is still likely to prove effective.

Medical Relief for the Indigent.—In the consideration of plans for caring for indigent medical relief it is absolutely necessary that two things be borne in mind: that all purely mercenary considerations must necessarily be discarded, and that all purely personal advancement is taboo. We mention this because of the fact that both these evils have appeared in numerous places where the question has been considered. It is entirely unreasonable to expect our larger counties to pay regular fees for this work but it is reasonable to expect our profession to assume its proper share of the burden.—*J. Ind. S. M. A., July, 1933.*

Additional Article on Medical Economics.—*Chester County*—August, p. 74.

HOSPITAL ACTIVITIES

What Hospitals May Sell.—The New York State Board of Social Welfare recently inquired of its committee on legal questions regarding the rights of hospitals to sell articles or service to others than patients. This question arose when an organization complained that hospitals, which are tax exempt, were competing with private business establishments. The following is the summary of the reply of the Committee on Legal Questions of the State Board of Social Welfare:

We believe a hospital has the right to manufacture and furnish either free of charge or sell to patients appliances prescribed by the physician treating such patients in the hospital. This applies to medicines, bandages, splints, braces, etc. This is an accepted practice and it is not material whether these articles are furnished free of charge, as part of a daily charge, or at a fixed price, the principle is the same.

We do not think a hospital has the right to manufacture and sell any article to any person not a patient of the hospital or not regularly admitted as a patient in its outpatient department. It does not matter whether these persons are friends or patients of the hospital staff.

We believe a hospital has the right to sell to patients articles that are desired about the hospital so long as such articles have a definite relation to the wellbeing of the patient while he is under the care of the hospital. We can well imagine that some patients might be supplied with a newspaper as a part of his treatment. His physician might feel that a certain type of reading would be good for him. Such supplies to the patients which have to do with their happiness in the hospital we believe to be justified as a part of the treatment for which the hospital is responsible. It may be reasonable in certain cases for the hospital to furnish a barber. Certain patients may even require visitors for their

wellbeing. We believe it is reasonable for a hospital to make it possible for such visitors to have access to the patients at proper times and therefore it may be proper in some cases for the hospital to furnish meals or a room to a person visiting a patient.

We think the whole question can be summed up by saying that anything which makes for the welfare and recovery of the patient is legitimate for the hospital to do, but any activity which cannot be definitely related to that is improper. Running gift shops, beauty parlors, restaurants, etc., for the general public we believe to be highly improper.—*Hospital Management*, August, 1933.

Dispensaries and Clinics.—The United Hospital Fund of New York City reports that 1,500,000 persons a year (1 in every 4 in the city), are now using clinics and dispensaries at the hospitals. These made a total of 6,688,215 visits last year. This proportion is more staggering when it is seen that a considerable percentage of the people have no medical attention at all. The fact that 500,000 of the 1,500,000 pay nothing for their services is itself a commentary of major importance upon our times and upon the extensiveness of abject poverty in the potentially opulent machine age. The drift of the patients to the clinics is depriving office physicians of patronage they once enjoyed. Is the drift permanent? What does it mean in terms of socialization? Such questions take on particular force in view of the revolutionary developments of a "New Deal" policy operating amid a depression which in itself is revolutionary.

This total is to be compared with one of 4,183,933 visits in 1927.—*New York World-Telegram*, August, 1933.

Hospital Plan Illegal.—The proposed group payment plan for hospital care, which has recently been advocated in New York, would be a violation of the State insurance law. The United Hospital Fund of New York announced, August 13, that it had obtained a ruling to this effect from George Van Schaick, state superintendent of insurance, and revealed that advocates of the plan were preparing to introduce a bill in Albany this winter to amend the law. Under the plan as proposed, employees wishing to obtain hospital care under the group plan would authorize employers to deduct 90 cents a month or \$10.80 a year from their pay. They would become eligible under certain conditions for 3 weeks of semiprivate hospital care a year and would be treated by their own physicians. Similar plans have been in operation in England for 10 years and more recently in several American cities.—*New York Times*, Aug. 14, 1933.

Ohio Law Pays for Auto Victims.—The Ohio Hospital Association has succeeded in having enacted a law that reimburses hospitals for service to indigent automobile accident victims at the patient day cost rate of the institution serving the patients. Nineteen cents from each automobile registration fee is turned over to a fund for this purpose.

Hospitals organized for profit are not included in the act which also excludes patients who may be entitled to compensation under the workmen's compensation act.

The patient day cost figures certified to by the state industrial commission for payment for industrial accident hospitalization are to be used as the basis of paying the hospitals, under the new law.

The Ohio Hospital Association has made a long fight for this law which is unique in that it has set aside a

certain portion of the automobile registration fees and also in that it pays for hospitalization on the patient day cost basis.

A number of other states have lien laws in which hospitals serving automobile accident victims may obtain a lien against monies awarded a victim and paid by the person responsible for the accident or his insurance company.

The new Ohio law was filed by the secretary of state, July 11, and is effective until March 1, 1935.—*Hospital Management*, August, 1933.

Hospitalization Plan in Little Rock.—In Little Rock, Ark., Trinity Hospital and Clinic, owned and operated by 7 physicians, has in operation an agreement with groups of employees for complete medical care at the monthly rate of \$2 per individual, the benefits to include the services of physicians and a maximum of 6 weeks' hospitalization. Payments to the hospital may be made through the financial offices of the employer or through voluntary collections by a member of an insured group.

The clinic also accepts individual and family memberships, which must be paid quarterly in advance, \$2.50 per month for an individual and \$5 per month for the member and his family (husband, wife, and minor children). A 10 per cent discount is allowed for a year's payment in advance. The service includes physical examinations, free immunization against smallpox, typhoid, and diphtheria, medical services including surgery, and hospital care up to 6 weeks a year for each individual, including roentgen-ray and laboratory service. Eye and dental work are excluded, as are certain medicines and the treatment of diagnosed cases of tuberculosis, mental disturbance, and venereal disease. House calls are not made without extra charge.

Physical examinations and immunizations are not only provided, but by a constant follow-up system every subscriber is urged to accept these services for himself and dependents covered.

As a result of these examinations, which are readily accepted, many incipient tendencies and minor impairments are discovered for which treatment is immediately supplied.

Necessary immunizations are accepted almost universally. It is this preventive phase of the plan which seems to appeal strongly to all who make application.

Whether in a group or not each subscription to the plan is voluntary and the application is individual. There are no arbitrary or enforced deductions from salaries or wages.

As the subscriber may discontinue the service and payments at any time it is evident that the plan must and does depend solely upon an adequate and satisfactory attention to all patients for a continuing success.

This places the responsibility exactly where it should be, viz., on the professional personnel of the clinic and hospital thereby creating a constant incentive toward the maintenance of high standards.

Records maintained, and a continuous system of statistical information based on experience with more than 2500 patients, indicate:

1. Patients under this plan avail themselves of a more complete medical service than under the usual fee system.

2. An extremely low lapse ratio from all causes.

3. Cash returns from the plan produce as much as could be collected from a like number of patients under the regular fee system.—(*Editorial*) *Hospital Management*, June, 1933.

MEDICOLEGAL NOTES

Malpractice Suits.—One would hardly think that a woman would bring a suit against a doctor because she felt that she should have been delivered by cesarean section because her labor was protracted—yet such a suit was recently filed.

In the use of a therapeutic lamp one would think that a sunburn would be the worst that could happen—but recently a celluloid comb caught fire and severe burns and loss of hair occurred. Caution: Be personally sure all combs and pins are removed.

When engaged for obstetrical care and you are away it is your business to provide for attendance.

Be guarded to whom you make reports of physical condition. Recently a doctor made a report to a factory nurse. The man lost his job. He sued the doctor and obtained a judgment for libel.

If you make an examination for an insurance company be sure the patient so understands. Never answer on an insurance blank the questions relative to past illnesses or present conditions that are not related to the immediate claim. You become liable if you do, without the patient's written consent. Never report to an insurance company any operative findings of a former patient applying for insurance.

No instructions given to a minor will protect you in a suit.

Hospital counts of sponges is no defense. The surgeon must know that all sponges are accounted for.

These are but a few of the liabilities that confront a doctor. They reveal the need for extreme care in these days when suits are started to secure easy money.

Do not lapse in your membership. You know not when you will be called to defend yourself.—*J. Michigan M. Soc., January, 1933.*

Unique Case Concerning Privileged Communications.—The insured under an accident policy which excluded from the coverage asphyxiation by carbon monoxide was found by his wife lying in his garage beside his automobile 1 hour and 40 minutes after he had gone to work on the car. Two windows of the garage were open, but smoke and fumes pervaded the place. Insured had bruises on his forehead and nose; the color of his face and chest was a little deeper red than natural. His wife called 2 doctors, who worked upon him for about 40 minutes in an unsuccessful attempt to revive him by artificial respiration.

In an action on the policy recovery depended upon whether the insured died by external, violent, and accidental means exclusive of inhalation of carbon monoxide. There were no indications of suicide. Two physicians testified that in their opinion, based on hypothetical questions describing the conditions under which insured was found, he died from a concussion of the brain and not from carbon monoxide poisoning or any other excepted risk. The insurance company sought to establish by the evidence that insured's body presented that cherry red appearance which is characteristic of carbon monoxide poisoning. The 2 doctors who tried to resuscitate him testified over objection to the presence of this symptom. The jury disagreed and judgment was entered for the defendant.

On appeal the question was whether the information which the doctors obtained in their treatment of the insured in attempting to revive him, together with their opinions based thereon, was privileged under the Minnesota statute. No cases on the point were found by the Minnesota Supreme Court or by counsel.

The court regarded the case as wholly unlike those of physicians called to perform an autopsy, because in such cases they are not there for the purpose of treating or ministering to the patient, but merely to determine the cause of death. Most of the cases hold that information obtained by physicians in performing autopsies is not privileged under the statutes. Reversing the judgment of the lower court and holding that the information obtained by the doctors was privileged, the court said: "The insured was probably dead when the doctors began their treatment; but we surmise this because the treatment failed to resuscitate him. We do not know at what moment he passed away. Had he been revived, of course anything that these doctors learned in their treatment would have been privileged. The diligence of counsel on both sides has been unable to discover an authority on the precise question here involved. It is our opinion that the information obtained under circumstances such as these and the opinion based thereon, where, in hope of reviving and resuscitating the patient, doctors examine him and give treatment, is privileged under the statute. They acquired this information in acting in a professional capacity for the purpose of enabling them to act in that capacity, not to determine the cause of death, but to prevent death if possible. If the patient were still alive at the time they commenced the treatment, but died during the process, we think that all will agree that the privilege covered the situation. How can it be any different when the doctors do not know whether the patient is beyond hope of revival? It would be an absurd result to say that the privilege depended upon the event rather than on the purpose of the physician. The legislature could not have intended such a construction. The fact that the result is unfortunate cannot have been intended to terminate the privilege as of the moment of death. The privilege in so far as it relates to objective symptoms would be largely nullified if a physician were compelled to tell what he saw the moment after death occurred.—*Editorial, M. J. & Record, May 3, 1933.*

When Is a Child Born Alive?—Stuertz died without leaving a will, Sept. 19, 1929. On May 23, 1930, his widow after a prolonged and difficult labor, gave birth to a child. At birth the child showed signs of asphyxiation. The child made no effort to breathe nor any other movement, but the umbilical cord pulsed. The cord was ligated, injections of lobelia were given to stimulate breathing, and artificial respiration and other usual methods to revive newly born infants were employed, but without success. After a half hour or so these efforts were discontinued and the child regarded as dead. The birth certificate reported the child a still-born and stated the cause of death as toxemia.

On the hypothesis that the child was born dead, the parents of the deceased instituted a suit to enforce their supposed rights of inheritance in the estate. Pursuant to the directions of the trial court, the jury found that the child was born alive, and the widow and child were therefore the heirs to the estate. The parents of the deceased then appealed to the Supreme Court of Nebraska.

In *Brock v. Kellock*, 30 L. J. (N. S.) 498, it was held that proof of breathing was not necessary to prove live birth, the pulsation of the umbilical cord being sufficient evidence. In *Goff v. Anderson*, 91 Ky. 303, 15 S. W. 866, 11 L. R. A. 825, it was held that a child was born alive when it made an effort to breathe after independent circulation and delivery, "independent circulation" meaning circulation maintained by the child independent of the mother. In *Doe ex dem. Cannon v.*

Killen, 5 Houst. (Del.) 14, it was held that a baby was born alive when the pulsation of the umbilical cord was strong and the heart continued to beat for 5 minutes after the cord was cut. "A child never heard to cry, and who did not live, but whose heart beats were perceptible and could be heard, though no respiration could be induced was 'born alive,' and was 'issue,' within a will." *Matter of Union Trust Co.*, 89 Misc. 69, 151 N. Y. S. 246. See also *Fleming v. Sexton*, 172 N. C. 250, 90 S. E. 247.

The evidence in the present case, said the Supreme Court of Nebraska, proves that the child at no time voluntarily breathed; that it made no sound; that it made no movement of any muscle of its own volition. It proves also that the child was well developed that its heart sounds were discernible before delivery and that they were heard after the child was born, for 20 or 30 minutes according to the physician's evidence and for 10 minutes according to the hospital record. The umbilical cord pulsated for 15 or 20 minutes after it was cut. The court held that for every legal purpose the child was alive at birth. The judgment of the court below was affirmed. *In re Stueritz' Estate (Neb.)*, 245 N. W. 412.—*J. A. M. A.*, Aug. 12, 1933.

Concerning Narcotics.—According to the *Philadelphia Inquirer*, ratification of the narcotics limitation convention by 28 governments gives the League of Nations control over a traffic in accordance with a principle for which the United States has long contended. Each nation will give an advance statement of its drug requirements for legal purposes, its reserve stocks, its orders for supplies and manufactures. The central control committee will see that supply and demand balance. Under international agreement, to which the United States is party and, in fact, a prime mover, the aim will be to eliminate the surplus heretofore available for antisocial consumption.

The consummation now of international coöperation marks perhaps a new era in the prospect of better world relations.

To quote from an article in the *United States Daily*, need for more complete and informative labeling on patent and proprietary medicine advertising is seen by Dr. F. J. Cullen, chief, Drug Control, Federal Food and Drug Administration, in reports of recent fatalities resulting from cinchophen poisoning. The Federal Food and Drug Act in its present form requires a label declaration only for a few narcotics or other drugs. This affords the public some protection, but the law should be amended to include habit-forming, or dangerous drugs, which should never be used without medical supervision.

An article in *Capitol News* claims that a recent survey concluded by the Bureau of Narcotic Drug Control of the State Department of Health showed that 22,000 persons and firms in Pennsylvania are licensed by the federal government legally to dispense or prescribe narcotics. Among these were 11,844 physicians.

Limitation of Area of Practice; "Within Radius of Fifteen Miles" Construed.—The defendant, a licensed physician, practiced in the borough of Boswell, Pa. On March 2, 1928, he agreed to sell to the plaintiff, also a licensed physician, his house, office equipment, surgical instruments, and the good will of his practice, and to refrain from practicing "within the radius of 15 miles from the borough of Boswell," for 15 years after the date of the agreement. About Oct. 1, 1929, he opened an office in Johnstown, Pa. The distance be-

tween the plaintiff's office in Boswell, which he had purchased from the defendant, and the defendant's newly opened office in Johnstown, was 12.2 miles in an air-line. The plaintiff therefore entered suit to restrain the defendant from violating the terms of his contract. The trial court construed the words "within the radius of 15 miles" to mean within 15 miles computed, not by air-line, but by the nearest traveled way, and because the distance between the 2 offices computed in that way was 15.4 miles, the court dismissed the suit. The plaintiff appealed to the Supreme Court of Pennsylvania.

The meaning of the words used to define the area from which the defendant agreed to withdraw from practice, said the Supreme Court, is plain, unambiguous, and definitive. If the defendant intended when he sold his practice in Boswell to describe a district irregular in shape, its boundaries to be dependent on accessibility by public roads, he should have said so. The boundaries of such an area would necessarily have elements of uncertainty, for there might be dispute about which of several public roads was the nearest traveled public way. The court has no power to substitute for the words "a radius of 15 miles," the words "15 miles by the nearest traveled public way or road," for the context of the agreement and the circumstances of the case exclude such substitution.

The case was remitted to the court below, with instructions to restrain the defendant from further violation of his contract. *Johnson v. McIntyre (Pa.)*, 163 A. 290.—*J. A. M. A.*, July 22, 1933.

INDUSTRIAL MEDICINE

Lead Poisoning.—According to an article by M. R. Mayers, in the *Industrial Bulletin*, for August, 1933, of all occupational diseases known to modern industry, one of the most prevalent by far is lead poisoning. This may very easily be contracted by workers who handle lead or any of its compounds in such industries, as: the manufacture of lead compounds from metallic lead; the smelting of lead ore or ores containing lead as an impurity; the manufacture of storage batteries, paint, inks, colors or glass; the glazing of pottery; hand setting of type, linotype or monotype operating in the printing trades; and so forth. The use of lead in one form or another is indeed so widespread that the relatively high incidence of lead poisoning which has prevailed in the past is not surprising. Great advances, however, have been made in the prevention of lead poisoning in recent years, as a result of a better understanding of the physiological and biochemical changes in the body when it is absorbed.

It is chiefly in the form of dust that the various lead compounds gain entrance into the body. Lead fumes are even more dangerous, but fewer workers are so exposed, because it is not very often that lead is heated to temperatures sufficient to volatilize it. When this occurs, however, the greatest precautions must be taken to prevent the occurrence of lead poisoning.

Lead dust and lead fumes must be reduced to a minimum in our lead industries by every known means. Chemical substances which do not contain lead must be substituted for those which do, wherever this is possible. Where the use of lead or its compounds is necessary, attention must be directed to mechanical means for keeping down the dust. The use of mechanical closed conveyors in the place of hand shoveling; the introduction of closed for open processes; the wetting down of all lead materials whenever this is possible; removal

of lead dust and fumes at their source by efficient exhaust systems; immaculate housekeeping for the workroom as a whole; the introduction of separate lunchrooms completely separated from the workroom; lockers in which workers can keep their street clothes separated from their uniforms; adequate washing facilities with an ample supply of running hot water, soap and towels; medical supervision of workers by physicians who are specialists in this disease—such examinations to include periodic examination of the blood and urine for evidences of lead absorption so that proper treatment for the removal of the lead from their systems may be promptly instituted when necessary. These are a few measures which should be adopted to protect lead workers from the hazards of their occupation.

It is not enough that we are prepared to pay compensation for illness or death arising from this disease. Scientific advances of recent years have made it possible for us to *prevent* it, and our attention must be concentrated—even in trying times like the present—upon this duty which we owe our lead workers in order that we may not add unnecessary illness to the hardships of unemployment from which so large a number of them are now suffering.

PUBLIC HEALTH

The School Lunch

The following remarks are from a pamphlet prepared by Allen G. Ireland, M.D., director of physical and health education, State Department of Education, Trenton, N. J.: "No growing child will thrive properly on 2 meals and a 'paper bag' luncheon daily. It is stretching a point to concede that children are receiving that much, for it is well known that many, indeed, armies of children, do not have adequate breakfasts. Many are compelled to go without either breakfast or luncheon. And, not infrequently, the evening meal is not what it should be.

"The child's real allotment, his need, if you would have him develop normally in mind and body, is 3 full meals, and in many instances an additional luncheon is needed. Lunches of cold, sodden food, hastily and poorly prepared, packed unattractively, become palatable and more appetizing when taken with a bowl of hot soup or cocoa. More of the lunch is eaten than before; also, it is eaten more slowly, and the digestive processes are most thoroughly stimulated by the warm food.

"The school lunch is more than worth its cost if it does nothing more than abolish the street peddler and the store lunch. Here the usual fare is soda and pastry, served poorly and hastily, and with little regard for etiquette. Such conditions are ruinous to health and may be equally harmful from a social point of view. Bad habits are formed, both with regard to the selection of food and the spending of money. Furthermore, there is always exposure to traffic dangers if pupils are permitted to leave the school grounds to visit neighborhood stores and lunchrooms. Because of the haste and element of play that are bound to enter, the danger is particularly acute.

"The school lunch should not be regarded as a sufficient means for the correction of malnutrition, as malnourished children usually need careful medical attention and seldom improve without it."—*J. M. Soc. New Jersey, March, 1933.*

Vaccination of Babies.—Dr. Charles Armstrong, of the U. S. Public Health Service, Washington, in a

recent report suggests that babies be vaccinated against smallpox during the first year of their lives, instead of waiting until vaccination is required by law when the child is ready to enter school. Though only 71 cases in which vaccination causes a disease of the nervous system have been reported in the United States in 10 years, the medical profession is much concerned that such an accident can occur. No one brand of vaccine can be held responsible, nor any one method of carrying out the vaccination. There is no certain information why a few cases of vaccination develop this complication. Statistics show that the trouble practically never follows vaccination of a baby less than a year old.

Tuberculosis in School Children.—Drs. B. S. Pollak and B. P. Potter state that for the past 10 years or so the diagnosis of tuberculosis in childhood has attracted considerable attention, but the question was recently crystallized by the contributions of Chadwick, McPhedran, and others, for the conclusions reached by these investigators emphasized the fact, made obvious by the teachings of Ghon, Von Pirquet, Ranke, and others, that tuberculosis in childhood differs largely from tuberculosis of the adult type.

The type of tuberculosis in children which can be diagnosed by the ordinary academic method does not for the moment enter into this discussion. It is the group of children with tuberculous disease unaccompanied by the usual clinical manifestations or physical signs that presents the greatest difficulties to the medical examiner. These latent infections are generally recognized by the tuberculin test and roentgen-ray examination. A history of contact with tuberculosis is also important, though difficult to obtain from school children.

Early diagnosis of tuberculosis in children leads the way toward prevention and cure of that disease. The importance of discovering the early lesion is obvious, for knowledge of its existence may enable the physician to prevent the catastrophe of a later developing adult type of pulmonary tuberculosis.

Although there are no characteristic symptoms, the following should attract attention: Undernourishment; failure to grow and gain weight, or an actual loss in weight; poor appetite; fatigue; lack of energy; a tendency to nervousness or irritability; poor resistance to minor ailments; frequent colds; cough, usually non-productive. Fever is usually present but of the mild degree which is so commonly caused by other conditions in childhood.

Physical examination of the chest reveals no characteristic signs in the childhood type of tuberculosis. In order to produce signs, the mass of lymph nodes should be large enough to form a considerable mediastinal tumor or be so situated as to produce pressure upon the trachea or bronchi, though the latter condition is rare.

The primary focus is so small and lacking in collateral inflammation, and the enlarged tracheobronchial glands are so deep-seated that impaired percussion note, altered breath sound and râles, are lacking.

The physical and laboratory examinations in the study of childhood tuberculosis are of more value in the discovery of other abnormal conditions which might explain the symptoms than in demonstrating the presence of a tuberculous lesion.

The absence of definite symptoms, physical signs, and laboratory findings makes the roentgenogram of greater diagnostic value in the childhood than in the adult type of pulmonary tuberculosis; in fact, it is only

by this means that tracheobronchial tuberculosis can be definitely demonstrated. The tuberculin test is valuable in the diagnosis of clinical tuberculosis and it should be routinely employed upon all suspected persons.

In a well-organized clinic or hospital the intracutaneous or Mantoux test is the method of choice, owing to the fact that it is more sensitive and has a quantitative value. They use dilutions of 1:1000 old tuberculin in 0.1 c.c. amounts (0.1 mg.). If the weaker dilution is negative and the condition is suspicious, they repeat the test with 0.1 c.c. of 1:1000 dilution (1.0 mg.), taking care to use the other arm, because a first test will increase the sensitivity of that area, and a second test on the same arm is apt to give a false impression. The tests are read in 48 hours and again in 7 days.

A positive tuberculin reaction means that tubercle bacilli have lived and grown in the body, but the child may or may not have demonstrable tuberculosis. A negative test gives valuable information and means that the child had no tuberculous infection, with few exceptions.

In searching for tuberculosis among school children, the ideal procedure would be to examine all children but owing to numbers this would be difficult at the start. As a minimum, all contact children, and all children suspected of having tuberculosis, should have the tuberculin test, and all who react should have the roentgen-ray examination. Children who have been exposed to infection should be kept under medical supervision, even though a solitary tuberculin test and the roentgenogram be negative. No examination or test should be made until a parent or guardian has given written consent.

The school physician can aid materially in solving the problem. The school may not entirely lend itself to the carrying out of all details involved, but the school physician, in coöperation with the family physician, who is the important factor in disease control, will help the tuberculosis agencies, hospitals, clinics, and sanatoria in bringing to attention all children with open and active tuberculosis, whose segregation will eventually substantially diminish tuberculosis among school children.—*J. M. Soc. New Jersey*, March, 1933.

Accidental Deaths.—According to *Accident Facts*, just issued by the National Safety Council, accidental deaths numbered 88,000 in the United States in 1932. This marks a decline for the second consecutive year, the total for 1930 was 99,330; and for 1931, it was 97,415. The total for 1932 is also smaller than in any year since 1924, when 85,684 persons were killed by accidents. To quote from the bulletin: "Motor vehicles still lead as a cause of accidental death. Automobile accidents took 29,500 lives last year." Occupational deaths claimed 15,000, of which 2500 occupational deaths also involved a motor vehicle.

"There were approximately 8,400,000 accidental injuries last year, and the wage loss, medical expense, and overhead insurance cost involved in injuries and deaths totalled \$2,000,000,000."

Limitation of Opium Supply.—Thirty-six nations agreed in the League of Nations' Treaty to limit the manufacture of narcotics throughout the world. These nations have agreed to inform a central office in Geneva how much opium they need each year for legitimate medical and scientific work. The United States, Great Britain, Turkey, Germany, Switzerland, France, 6 of the 8 largest narcotic manufacturing nations, have agreed to limit production to match the requisitions filed in the office in Geneva. The United States needs about 150,000 pounds yearly.

Delay in the Treatment of Cancer.—In the *New England Medical Journal*, for May 18, 1933, Simmons, Daland, and Wallace give the following summary: The histories of the 370 cases of primary cancer admitted to the Massachusetts General Hospital during the year 1930 have been reviewed to determine why the results of treatment of this disease are so unsatisfactory. Similar reviews were made of the cases admitted during the years 1917-18 and 1921-22.

The chief object of the study was to determine if the campaign of education carried on by the American Society for the Control of Cancer and the State Department of Public Health had caused the patient to receive appropriate treatment with less delay than was formerly the case.

Curability.—In 47 per cent of the cases a radical operation was performed, that is there was a chance for permanent surgical cure. This figure is about the same as in the other 2 analyses. Excluding cancer in situations commonly said to be incurable the operability was 60 per cent, a 20 per cent improvement.

Duration.—The average duration of the disease on admission to the hospital was 9.5 months, an 18 per cent improvement in the last 8 years. On the other hand, the average duration in cases of cancer of the breast was 9.25 months, which is discouraging considering the publicity given this particular disease. It represents a 22 per cent improvement, however, over the previous figure.

Duration of the Disease to the First Consultation.—The average delay on the part of the patient after the onset of symptoms before consulting a physician was 4.8 months. This is approximately the same as in former years, and comparative figures were practically the same in cancer in any situation.

Delay from the First Consultation Until Radical Treatment was Advised.—The average delay on the part of the first physician consulted before advising radical treatment was 3.3 months. This is approximately the same as in the other analyses. In the more common forms of cancer such as cancer of the mouth, breast, cervix, and rectum the delay was 1.4 months, a 7 per cent improvement.

Operation.—Forty-seven per cent of the cases had a radical operation performed with an operative mortality of 14 per cent. The operative mortality of the palliative and exploratory abdominal operations was considerably higher. The most common causes of death were sepsis, pulmonary complications, and "undetermined." Most of the cases in the latter group were probably a combination of shock, hemorrhage, and sepsis.

Physician and Pharmacist.—In an editorial of this title, published in *The American Journal of Pharmacy*, June, 1933, a physician who is also a pharmacist and who for many years taught materia medica at a college for pharmacists, gives pharmacists some idea as to what physicians desire to learn from them. To quote from the article:

"The physician must establish the diagnosis as patients present themselves. Once the diagnosis is established the next problem of the physician is to attempt to cure, or at least to comfort the patient where cure is impossible. Here therapeutics becomes of the utmost importance. The wider the physician's therapeutic knowledge, the better served will be the patient."

Then is told how and when the physician obtains his knowledge of materia medica and therapeutics. "In the

medical schools the undergraduate obtains a general idea of *matéria medica*, some general facts regarding pharmacy, and occasionally an opportunity to make a pill or potion. Later, general therapeutics is taught, together with the pharmacologic action of drugs. The medical student rarely has an opportunity of actual prescribing for sick patients and hence he leaves the medical school with a general knowledge of the names and presumable indications for prescribing drugs, but without any practical experience.

"After graduation, hospital experience is required and during his internship the intern again meets with conditions that prohibit a thorough knowledge of prescription writing. In most hospitals it is customary for the treatment to be ordered on hospital charts and in individual doses, or in sufficient doses to meet any given indication. Often one or more remedies may be combined. However, it is not the physician, but the nurse, who usually gives the medication.

"Moreover, standard formulas are often used in hospitals for routine treatment and these preparations are often dispensed by number. The same general practice is often used in the dispensaries. Hence the resident physician completes his hospital experience trained thoroughly in the art of diagnosis and with a general knowledge of treatment, yet enters the actual practice of medicine with a meager understanding of the art of prescribing medication in its most desirable, efficacious, and best form.

"Of course, the physician will know the important sedatives, laxatives, heart drugs, diuretics, *etc.*, but the most suitable method for their combination in prescriptions is often another story. In addition, the various remedies that may be used interchangeably in a given therapeutic group often escapes the young physician, while a knowledge of the U. S. P. and N. F. preparations remains ancient history.

"The physician now enters medical practice with this preparation and he soon finds himself face to face with the necessity of acquiring more skill in prescribing for his patients. If this skill is not acquired by constant practice, the physician takes the course of least resistance and falls into the habit of prescribing the many solicited proprietary remedies which fill the pharmacists' shelves.

"There is another very important viewpoint that has greatly influenced modern therapeutics and has indeed been influential in changing the belief in the efficacy of drugs. With the advance of modern medicine, as evidenced by the development of bacteriology, biochemistry, pathology, and allied sciences, the physician has seen the evolution of the causes of many diseases. Thus isolation of the diphtheria germ, producing diphtheria, the meningococcus, causing meningitis, *etc.*, has opened up a field of research resulting in the production of specific remedies for these diseases.

"As a consequence of this advance, modern medicine has produced specific sera which are curative. Where specifics are not available, diseases may be prevented by the inoculation with various vaccines. By this means diseases as typhoid fever are prevented by inoculation of typhoid vaccine, and diphtheria by inoculation of toxin antitoxin, *etc.*

"Furthermore, malaria has yielded to its specific, namely quinine, while amebic dysentery has yielded to its specific, emetine.

"Suffice it to say that many physicians, therefore, have learned to expect drugs or remedies to be of a specific curative nature and unfortunately have lost faith in

those remedies, useful and helpful in relieving symptoms of diseases, for which we have no specifics. The pains and aches in many diseases that even have a specific for their cure, require additional medication and it is here also that additional therapy should not be lost sight of.

"It will be seen from this brief résumé of the physician's preparation for prescription writing and choice of remedies, together with his viewpoint as to the desire for specifics, that the pharmacist has a golden opportunity with the physician.

"What the doctor really wants to know, therefore, is a list of those drugs and remedies, old and new, official and perhaps unofficial, that have been proved to have therapeutic merit. Furthermore, he would like to know the various drugs that could be used interchangeably in a given therapeutic class, where perhaps, one drug may be nauseating and undesirable, and another could be substituted with satisfactory therapeutic effect. The doctor would also like to know the most desirable form in which to prescribe certain remedies; that is, whether a liquid, capsule, powder, or suppository would be most satisfactory. Moreover, the doctor would like to know how to avoid occasional chemical incompatibility and also possible unsightliness of a remedy.

"In addition, it may be suggested that large quantities of medicine are often prescribed where only a few doses are necessary. This could be avoided by advice as to judicious prescribing. Then again, there is an opportunity for the pharmacist to inform the physician on the matter of the various endocrines; first, as to U. S. P. preparations, and second, as to the best available brands that are not official.

"Many busy physicians may not have had an opportunity of culling from the literature the more recently discovered remedies. A list of these, with their dosage and ideal methods for prescribing, would be appreciated by these physicians. In this group of remedies one may mention preparations like insulin, parathormone, dextrose for intravenous injection, various calcium preparations, liver solution for the control of anemias, to say nothing of the various specific sera and vaccines.

"It is certain that the physician would indeed welcome any information of this sort by the well-informed pharmacist, despite the traditional beliefs that the physician, high and mighty, becomes indignant when the pharmacist, of necessity or otherwise, must confer with him relative to a prescription. May I, in behalf of physicians of my acquaintance, assure you that most physicians, at all times, are highly appreciative of receiving this consultation from the specialist, the prescription pharmacist, who is good enough to act as a safety check on the medical profession in this regard.

"And finally, may I add that I believe systematized and periodic information along the lines I have mentioned, presented to the practicing physician with emphasis on the therapeutic merits of the U. S. P. and N. F. preparations and those accepted nonofficial remedies, would be welcome propaganda which would be beneficial, not only to the pharmacist, but also to the physician and the patient."

First Vaccination.—According to *Science*, an inscription on a gravestone in the parish churchyard of the village of Worth Matravers, near Swanage, Dorset,

shows that Edward Jenner, who discovered inoculation by cowpox as a preventive of smallpox was forestalled by 2 years by Benjamin Jetsy, a Dorset farmer. Jenner's first inoculation by cowpox is recorded as having been made on a boy in May, 1776. The inscription on Jetsy's gravestone shows that he inoculated his wife and two sons with cowpox in 1774. The inscription relates that Jetsy "was an upright, honest man; particularly noted for having been the first person known that introduced the cowpox by inoculation, and who from his great strength of mind made the experiment from the cow on his wife and 2 sons in the year 1774." Adjoining Jetsy's grave is that of his wife who died at the age of 84 in 1824, 50 years after the experiment, proving conclusively that the experiment made on her by her strong minded husband did not affect her health.

Morbidity in Pennsylvania in August, 1933

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	0	1	0	36
Allentown	0	0	2	0	2
Altoona	1	0	14	1	5
Ambridge	0	0	2	0	0
Arnold	0	0	0	0	0
Beaver Falls	0	0	0	0	5
Bellevue	0	0	3	0	0
Berwick	0	0	0	0	0
Bethlehem	0	0	0	0	0
Braddock	0	0	0	0	1
Bradford	0	0	5	0	9
Bristol	0	8	0	0	0
Butler	0	0	0	0	7
Canonsburg	0	0	1	1	1
Carbondale	0	0	0	0	0
Carlisle	0	0	0	3	0
Carnegie	0	0	0	0	0
Chambersburg	0	0	0	2	0
Charleroi	0	0	0	0	0
Chester	0	0	6	2	0
Clairton	0	0	0	0	0
Coatesville	0	0	0	0	2
Columbia	0	0	0	1	0
Connellsville	0	0	0	1	2
Conshohocken	0	0	0	0	0
Coraopolis	0	0	0	0	2
Diekson City	0	0	0	0	0
Donora	0	0	0	0	0
Dormont	0	0	0	0	0
Du Bois	0	0	0	0	0
Dunmore	0	0	0	0	1
Duquesne	0	0	1	0	0
Easton	0	1	0	0	2
Ellwood City	0	0	0	0	8
Erie	3	7	6	2	19
Farrell	0	1	0	0	1
Franklin	0	0	0	0	6
Greensburg	1	0	0	0	0
Hanover	0	0	0	0	0
Harrisburg	0	3	0	0	31
Hazleton	3	0	0	6	3
Homestead	0	0	1	0	2
Jeannette	0	1	5	0	0
Johnstown	3	1	0	0	35
Kingston	0	0	0	0	0
Laneaster	1	0	0	0	14
Iatrobe	0	1	0	0	0
Lebanon	0	1	2	0	0
Lewistown	0	0	2	0	2
McKees Rocks	0	0	0	0	0
McKeesport	0	0	0	0	0
Mahanoy City	0	0	0	0	0
Meadville	1	0	0	0	0
Monessen	3	0	6	0	0
Mount Carmel	0	1	0	0	0
Munhall	0	0	0	0	1
Nantioke	1	0	1	2	0
New Castle	0	0	0	0	1
New Kensington	0	0	1	0	0
Norristown	0	5	0	0	0
North Braddock	1	1	1	0	2
Oil City	1	0	2	0	19
Old Forge	0	0	0	0	0
Olyphant	0	0	1	0	0
Philadelephia	10	71	59	4	24
Phoenixville	0	1	1	0	0
Pittsburgh	11	5	35	8	190
Pittston	0	0	0	0	0
Plymouth	0	0	2	5	2
Pottstown	0	2	0	0	0
Pottsville	1	0	0	0	2
Reading	7	2	2	0	34
Seranton	1	0	2	0	7
Shamokin	0	0	0	0	0
Sharon	0	0	0	0	3
Shenandoah	0	0	0	0	0
Steelton	0	1	0	0	0
Sunbury	0	0	0	0	0
Swissvale	0	0	1	1	0
Tamaqua	0	0	0	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	1	0	0	0
Uniontown	0	0	5	2	1
Vandergrift	0	0	1	1	1
Warren	0	0	2	0	0
Washington	0	0	0	1	4
Waynesboro	0	0	0	1	3
West Chester	0	0	0	0	0
Wilkes-Barre	8	1	1	0	1
Wilkinsburg	0	0	0	0	4
Williamsport	0	0	4	1	11
York	6	0	0	0	3
Townships					
Allegheny County:					
Harrison	1	0	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	0	0	0	0
Delaware County:					
Haverford	0	1	0	1	2
Upper Darby	0	0	0	0	9
Luzerne County:					
Hanover	0	0	0	0	0
Plains	0	1	1	0	3
Montgomery County:					
Abington	0	1	0	0	0
Cheltenham	1	0	0	0	0
Lower Merion	0	3	0	0	3
Total Urban ..	59	121	179	40	526
Total Rural ..	56	49	182	72	385
Total State ..	115	170	361	112	911

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

A SYMPOSIUM on silicosis contributed by a group of distinguished clinicians and research workers occupied a prominent place on the program of the annual meeting of the National Tuberculosis Association held in Toronto, June 27-30, 1933. Extracts of the papers, which will be published elsewhere later, are here presented.

SILICOSIS AND TUBERCULOSIS

A. J. Lanza, specialist in industrial medicine, stated that while it is impossible to estimate accurately the prevalence of silicosis in the general population, studies among employees of trades with a silicotic dust hazard show a high tuberculosis mortality among them. Much of this excess in the tuberculosis death rate may be ascribed to silicosis. In a few instances the prevalence of silicosis has been carefully estimated, but the rates so obtained cannot be applied generally because industrial conditions vary so widely. However, it is apparent that silicosis is a widespread industrial hazard, is probably on the increase, and affects to an appreciable extent the death rate among industrial workers exposed.

Professor S. Lyle Cummins of Wales, Adviser to the (British) Tuberculosis Research Committee, which recently issued an epochal report on tuberculosis among South African natives engaged in gold mining, stated that there are serious lacunæ in our knowledge about dust diseases. "Silicosis" is a state of bilateral lung and lymph-node fibrosis, for the most part nodular in type, resulting from the inhalation and the retention in the lung of the dust of hard stone; the particles being in such fine division as to enter the pulmonary alveoli and ultimately the lung tissue where they set up characteristic changes and determine an increased liability to pulmonary tuberculosis. We know, too, from the animal experiments of reliable investigators, that free silica introduced into the tissues, either in its crystalline form or as a solution, sets up inflammatory processes leading on to fibrosis; and that its presence acts as an adjuvant to the local multiplication of tubercle bacilli.

In South Wales coal miners suffer with a condition corresponding to the silicosis of metal-liferous miners, but which does not apparently predispose to fatal lung tuberculosis. These observations question the criteria on which the diagnosis of silicosis is usually made. Studies among gold miners in South Africa provide much accurate information. The dust inhaled by miners on the Rand contains other elements than free silica. Some of the elements of these complex dusts may be adjuvants to the action of free silica and others may tend to neutralize it. We need, said Dr. Cummins, a scientific "recession" in which to reëxamine with an open mind many of the generalizations now accepted as current coin in relation to silicosis and "miners" phthisis.

Pulmonary tuberculosis so readily complicates simple silicosis, said A. R. Riddell of Toronto, that silicotic fibrosis rarely reaches advanced stages without its occurrence. Simple silicosis seldom occasions conscious disability unless the fibrosis is advanced.

Clinical signs in silicosis are those common to fibrosing lung conditions and therefore not characteristic except that they generally occur throughout the chest and are not confined to circumscribed areas. A lessening of the breath sounds or blanketing together with a shortening of the inspiratory phase, which is at the same time raised in pitch, has diagnostic value. Roentgen-ray shadows, when considered in conjunction with a clear history of exposure, are diagnostic.

The teaching that tuberculosis arising among those in silica trades is not infectious cannot be universally entertained. The author has found

as great an amount of infection among the wives and children of tuberculous silicotics as among those in contact with ordinary tuberculosis.

Leroy U. Gardiner of Saranac presented a picture of the pathological sequence following inhalation of silica dust. Necropsy material in this country is rare, but this lack is compensated to some degree by the fact that silicotic conditions can be reproduced in experimental animals.

The first reaction to inhaled silica is non-specific and is probably the same for any type of dust. It consists of accumulations of phagocytes in the subpleural air spaces accompanied by a slight thickening of their walls. By roentgen ray this may be visualized as a slight diffuse haze beneath the pleura in the mid-portions of the lungs.

Phagocytes carry the silica to lymphoid tissue within the lung and the mediastinum where nodules of fibrous tissue develop which compress the lymphatic vessels and interfere with the flow of lymph. Phagocytes pass through the walls of the lymphatics and excite fibrosis in the areolar tissue about them. In the roentgenogram the thickened vascular trunks, beaded by minute nodules of specific reaction, are now clearly discernible. Nodules in the tracheobronchial nodes enlarge these structures and widen the mediastinal shadow.

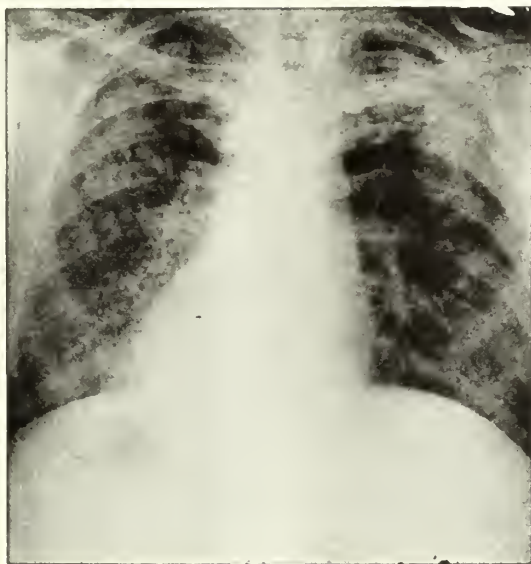
When lymphatic obstruction is advanced phagocytes carry dust immediately into all parts of the pulmonary frame-work with the formation of a diffuse fibrosis and multiple nodules in the walls of the terminal air spaces. The roentgenogram discloses great numbers of discrete nodules uniformly scattered throughout the lung, which are easily visible because surrounded by compensatory emphysema.

Acute silicosis is said to develop in response to excessive concentrations of exceedingly fine dust. Sections of all those seen by the author

have been complicated by tuberculosis but the simple form may occur.

When tuberculosis complicates silicosis it may arise from a preëxisting latent infection or from a new one acquired during occupational life. It becomes more common as the amount of silicosis increases. The combination of the two conditions constitutes a new disease entity which is characterized by lesions different from those which either irritant produces alone. In the presence of tuberculosis the silicotic nodule increases in size and its borders become ill-defined

and irregular. Its center may caseate but often it does not. Tubercle bacilli are rare or absent. Conglomerations of nodules imbedded in a matrix of dense pigmented leather-like scar tissue are common in the mid lungs and are frequently bilateral. Foci of caseation or even cavities may occur within such areas. Such changes are demonstrable both by roentgenogram and post-mortem sections. The cause of the susceptibility of the silicotic lung to tuberculosis remains to be demonstrated although various experimental data have shed

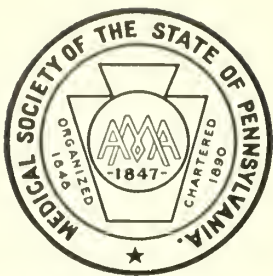


Second degree silicosis with tuberculosis. Hilum shadows obscure. Dense mottling in both lungs. Some cloudiness at both apices, particularly at right.

some light upon the character of the process.

Willis S. Lemon and George M. Higgins of Rochester, Minnesota, described the development of the pulmonary silicotic nodule in the experimental animal. The amount and the situation of lymphatic tissue determine not only the site but the physical characteristics of the developing lesions. They become massive and conglomerate in the progressively smaller and more discrete as the sizes of the bronchi decrease. Lesions of variable size occur in the subpleural regions.

Henry K. Pancoast and Eugene P. Pendergrass of Philadelphia described the roentgenological aspects of this subject. The roentgen examination is the most exact means of determining the presence of silicosis, the degree of progression and the differential diagnosis.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

ANNUAL SECRETARIES' CONFERENCE

The Annual Conference and Luncheon of Component Society Secretaries and Editors held last December drew a larger attendance and excited more interest than any previous similar conference. Although the expense in connection with the conference, which was attended also by all the officers of the State Society and the members of the Public Relations and Public Health Legislation Committees, was \$1,070.00, it is believed that this is one of the most valuable annual investments made by our society.

The 28th Annual Secretaries' Conference will be held in Harrisburg, Tuesday, Dec. 5, 1933.

FORWARD

Former policies of organizational indifference to the quality of medical service rendered to citizens unable to choose or to pay physicians are rapidly melting away in certain communities before the irresistible combined forces of responsible corporate, social, and scientific groups. This is but a part of similar swift and sweeping movements nation-wide in scope, expressing the permanent passage of governmental irresponsibility for child welfare and the economic position of the farmer, the industrial worker as well as the investor. All of these embody a new philosophy in government based on intelligent control and happy will be the lot of the group who by guiding purpose and traditional accomplishments are equipped to serve as well as lead in this new day in which the interests of the public are to be supreme. That the medical profession of Pennsylvania is thus equipped is historically true and is currently manifest. An outstanding century of medical progress with a current decade marked by the development of community leadership in

health problems marks most of our county medical societies as ready to lead in the sphere of sickness prevention and the amelioration of human suffering. The latest practical application of these truths is manifest in a coöperative health endeavor of the City of Pittsburgh and the Public Relations Committee of the Allegheny County Medical Society. We publish the details of a plan for maternal care among those "on relief" as it was distributed by the committee to the society members and we commend its careful study because the plan provides the following:

1. Appropriation by City Council of funds for a specific purpose.
2. Free choice of physician on a fee basis.
3. Quality of prenatal, natal, and postnatal service in each case must be approved by the Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society.

DEAR DOCTOR:

Attached is a copy of the Plan of Operation of the Public Relations Auxiliary Committee on Maternal Care, for the execution of which the Council of the City of Pittsburgh has appropriated \$50,000. Since the plan becomes effective immediately, it is important that you acquaint yourself at once with its provisions.

You will note that the plan applies only to residents of Pittsburgh who are on relief. Attending physicians, however, may reside beyond the city limits.

Patients should procure from the Allegheny County Emergency Association, City-County Building, a printed form executed in duplicate, both copies of which should be presented to you during the first or second visit. The duplicate copy is to be sent immediately to the Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society, 5088 Jenkins Arcade. The original copy is to be retained until the case is completed, at which time the patient must sign the form indicating that service was rendered. The signed copy is to be forwarded to the above Committee together with the medical history of the case and formal bill for \$25. A copy of the duplicate form appears on page 2 of this communication.

Blanks upon which to record medical histories will be furnished by the Society upon request to the Executive Office, 5088 Jenkins Arcade. The telephone number is Atlantic 5711. If you have any questions regarding the operation of the plan or desire information in addition to that included herein, communicate with the office.

Yours very truly,

PUBLIC RELATIONS AUXILIARY COMMITTEE
ON MATERNAL CARE.

ORDER FOR MATERNAL CARE

Date..... No.....

City of Pittsburgh—Department of Public Welfare
City-County Building, Pittsburgh

Hospital or licensed physician must be selected by client without suggestion or recommendation from nurse or relief aide.

To
(Hospital or Licensed Physician)

.....
(Address)

You have been selected by.....
(Name of Expectant Mother)

.....
(Address)

to provide medical service including prenatal care, delivery, and postnatal care in accordance with the schedule printed on the back of this order.

Payment of \$25.00 to be made after service is rendered upon approval of the Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society.

This is to certify that the above service has been rendered
(Signature of Client)

CITY OF PITTSBURGH—DEPARTMENT OF
PUBLIC WELFARE.

..... Date.....
(Director)

Approved:

Public Relations Auxiliary Committee
on Maternal Care of the Allegheny
County Medical Society.

Plan of Operation of the Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society

1. During the present emergency or until rescinded by the Board of Directors of the Allegheny County Medical Society, the members of the Allegheny County Medical Society agree to render to the expectant mother adequate medical supervision during her pregnancy, labor, and puerperal period, including the baby after its birth, under the following conditions:

2. All duly qualified and registered physicians residing and practicing medicine in Allegheny County shall be entitled to participate in this plan and the remuneration unless later removed for cause as provided in paragraph 9.

3. The patient shall have a free choice of physician or hospital.

4. At the time of the first contact between the physician and patient the physician shall make a thorough physical examination of the patient including a pelvic examination, pelvic measurements, Wassermann (or Kahn) and a blood count when necessary. The results shall be recorded on a chart approved by the Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society.

5. The physician shall instruct and insist upon the patient making monthly calls during the first months of her pregnancy, bimonthly during the seventh month and weekly during the eighth and ninth months. On or about the middle of the eighth or the beginning of the ninth month of the pregnancy the examination must include the determination of the presentation and position of the fetus and whether or not a demonstrable part of the placenta is intervening between the presentation part and the lower uterine segment, all of which, including urinalyses, are to be recorded on the chart.

6. The physician shall respond promptly when the patient goes into labor and spend sufficient time with her watching the progress of labor and the welfare of the infant to insure the patient's safety. If complications develop, he may have any patient moved to the hospital of his selection under such conditions as are set forth in paragraph 11.

7. After delivery the case shall be reported to a visiting nurse service. The nurse responding to the call shall follow the orders left by the physician and report any change in the condition of the mother or infant, and whenever necessary the physician shall visit the patient even though it involves an additional call or calls. The physician shall be responsible for a proper record of the puerperal period.

8. At the end of the puerperal period the physician must insist upon the patient calling at his office, when any treatment necessary shall be given and her condition recorded.

9. Upon completion of the case (about six weeks after delivery), the attending physician shall submit the entire case history to the Public Relations Auxiliary Committee on Maternal Care. If the history is approved, recommendation for payment will be made to the Controller of the City of Pittsburgh. Payment will not be recommended when for any reason the entire service and history are not considered satisfactory by this committee. Histories not approved will be returned to the attending physician with a notice to the effect that the Committee has not recommended payment. The Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society shall have the right to remove from the list of participating physicians to whom the city will pay the usual compensation the name of any physician whose services are unsatisfactory.

10. The plan outlined above shall apply also to hospitals, the patient going to the hospital of her selection. Upon admission to the hospital she shall be seen by and attended by a staff physician to whom she may be assigned, the hospital receiving 60 per cent of the compensation and the physician 40 per cent.

11. If a complicated case is referred to the hospital when in labor the compensation shall be divided as follows: hospital, 60 per cent (attending staff physician not participating); the 40 per cent shall go to the physician submitting satisfactory evidence of proper prenatal care.

12. The remuneration given to the physician or hospital shall be \$25.00, divided when necessary as provided above.

13. Only cases residing in Pittsburgh receiving substantial assistance when applying to the physician are

eligible for this service. The patient must submit satisfactory evidence of this at the time of her first or second visit, such evidence being made a part of the record.

14. The Allegheny County Medical Society may issue a certificate of service and proficiency to all physicians who participate in this plan and render satisfactory service in a specified number of cases to be subsequently determined by the Public Relations Auxiliary Committee on Maternal Care.

In a recent address before the Allegheny County Medical Society, Dr. Russell J. Ferguson, associate professor of history, University of Pittsburgh, concluded his remarks with the following appeal: "I want to make an urgent and fervent appeal, that you not only continue leadership, but that you accentuate it, if possible, until every unhealthful condition, whether physical, moral, or mental, has disappeared."

In coordinating the efforts of the city, the hospital, the nurse, and the attending physician and making the latter individually responsible for good maternity service to "life's more unfortunate," we believe the medical society is responding to the historian's appeal for leadership and at the same time further establishing public confidence that ours is a true profession "pursued not merely for one's self."

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contributions to the Fund:

Woman's Auxiliary Beaver County Medical Society	\$100.00
Woman's Auxiliary Wyoming County Medical Society	10.00

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since August 15:

Aug. 16 Perry	12	7553	\$7.50
Schuylkill	141-142	7554-7555	15.00
25 Bradford	39	7556	7.50
Fayette	118	7557	7.50
Luzerne	296-297	7558-7559	15.00
Lehigh	140	7560	3.75
31 Dauphin	192-196	7561-7565	30.00
Lawrence	68	7566	7.50
Luzerne	295	7567	7.50
Allegheny	1258-1262	7568-7572	37.50
Sept. 10 Lackawanna	235	7573	7.50
Philadelphia	1927-1931	7574-7578	37.50
15 Westmoreland	161-162	7579-7580	15.00
Fayette	119-121	7581-7583	15.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to September 15:

ALLEGHENY: *Reinstated Member*—Donald Fusia, Oakmont Ave., Oakmont.

BERK: *Death*—Charles D. Werley, Reading (Jeff. Med. Coll. '89), Apr. 20, age 70.

CAMBRIA: *Removal*—Thomas J. Cush from Johnstown to State Hospital for Crippled Children, Elizabethtown.

COLUMBIA: *Removal*—George B. Dornblaser from Berwick to Hazleton National Bank Bldg., Hazleton.

DAUPHIN: *New Members*—Robert E. Barto, Elizabethville; Harry Walmer, 335 Union St., Millersburg. *Reinstated Members*—Oliver H. Swartz, Middletown; Byron B. Bobb, 125 State St., Harrisburg.

DELAWARE: *Death*—Robert S. Maison, Chester (Univ. of Pa. '90), Aug. 30, age 67.

ERIE: *Death*—Joseph A. Stackhouse, Erie (Hah. Med. Coll. '11), Sept. 5, age 44.

FAYETTE: *New Members*—Ralph S. Buvinger, Point Marion; William F. Keck, South Brownsville; Charles C. Hubbard, Uniontown. *Reinstated Member*—Alex. McG. Duff, Jr., Republic. *Transfer*—Samuel W. Huston, Brownsville, from Washington County Society. *Death*—Freeman S. Hoover, Brownsville (Balt. Med. Coll. '03), July 22, age 66.

LACKAWANNA: *Reinstated Member*—Joseph S. Murrin, National Bank Bldg., Carbondale.

LAWRENCE: *Reinstated Member*—Charles J. Smyser, New Wilmington.

LEHIGH: *New Member*—Alfred M. Dietrich, Jr., 138 N. 8th St., Allentown.

LUZERNE: *Reinstated Members*—William Christian, 21 Main St., Luzerne; Albert Kaufman, 51 N. Washington St., Wilkes-Barre; Robert N. Clark, 408 Wyoming Ave., Kingston.

MERCER: *Death*—Matthew A. Barnes, Pardoe (Univ. of Pgh. '93), Aug. 25, age 69.

MONTGOMERY: *Death*—James A. McCracken, Norristown (Med. Chi. Coll. Phila. '05), Aug. 12, age 53.

NORTHUMBERLAND: *Death*—Harvey M. Becker, Sunbury (Univ. of Pa. '98), Aug. 28, age 60.

PHILADELPHIA: *New Member*—Lester L. Bower, 4920 City Line Ave., Philadelphia. *Reinstated Members*—Philip Getson, 2033 Spruce St., Carl E. Houlihan, 728 S. 60th St., Arthur P. Keegan, St. James Hotel, 13th & Walnut Sts., Philadelphia. *Death*—Raymond J. Harris, Philadelphia (Hah. Med. Coll. '94), Aug. 9, age 61.

SCHUYLKILL: *Reinstated Member*—Mary B. Kingsbury, Pottsville.

WESTMORELAND: *New Member*—Frank Jones Pyle, 11 N. Chestnut St., Scottsdale. *Reinstated Member*—Charles W. Dixon, Export.

YORK: *Death*—Maurice B. Spector, Wrightsville (Temple Univ. Med. Coll. '26), July 27, age 35. *Removal*—R. Warren Ramsey from Delta to 268 E. Market St., York.

County Society Reports

CHESTER—AUGUST

The regular meeting was held at the Chester County Hospital, August 15. After luncheon, the meeting was called to order by President Robert C. Hughes. This was one of the 2 business meetings held during the year and the entire program was devoted to a discussion of many important matters now before the profession.

A letter was read from the State Medical Society requesting that a Health Day Program be planned for some day in October. A resolution was adopted the purport of which is to urge all public officials, welfare

organizations, and persons prominent in welfare work to advise the physicians of Chester County of any projected campaign or activity concerning public health, so that the Medical Society may be better able to co-operate and advise public health organizations in those matters in which physicians are best technically qualified to take part.

The Health Committee reported that some 40 doctors had examined more than 700 children of the county. As the reports have not all been received, the degree of malnutrition is not definitely known; the committee considers there is not an unusual amount of malnutrition in the county at the present time, and that the remainder of the work would have to be done by dietitians throughout the county and that they had pledged their services to this campaign.

The Committee on Medical Economics reported on its work during the past several months, and reiterated the position which the County Society had adopted in requiring all clinic patients throughout the county to be admitted to the hospital only on the recommendation of the family physician. The committee earnestly feels that this attempt to regulate clinic practice should be county wide and that all institutions must coöperate in this matter. Dr. Farrell was instructed by the society to take before the House of Delegates at the next State Convention, the serious abuse resulting from the practice of insurance companies to reimburse individuals with compensation claims and at the same time make no effort to see that the physician or hospital is paid for services rendered. The question of a standard fee bill was referred to the Committee on Medical Economics for a solution. This Committee was authorized to take the matter of fee collections from the Directors of the Poor in the medical care of the indigent emergency cases to court if deemed advisable.

The Censors raised the question of eligibility for membership in the County Medical Society of student health physicians in State institutions. It was decided that all such applications would have to be declined as this type of practice was severely condemned by the American Medical Association.

JOSEPH SCATTERGOOD, JR., *Reporter.*

BRADFORD

Aug. 1, 1933

The regular monthly meeting was held August 1, at the Robert Packer Hospital, Sayre. Members of the Valley Dental Society were invited as guests. There were also present many physicians from southern New York, Susquehanna, Wyoming, and Tioga Counties, Pennsylvania. There was a total attendance of about 100.

The meeting was called to order at 8:15 p.m. by President Thomas H. Meikle. Chairman John M. Higgins announced the work that had been accomplished in regard to the Child Emergency Relief Board, stating that a vice chairman had been secured, various committees had been appointed, and in the near future the several groups would start the work in the different communities. An announcement was also made by Secretary Stanley D. Conklin in regard to the Community Meeting to be held in LeRayssville on August 7, at which time the residents of the communities of Pottsville and LeRayssville would present Phillip B. Williams and Fayette Lane Inslee with illuminated addresses.

George W. Crile, emeritus professor of surgery, Cleveland Clinic, Cleveland, delivered an address on "Anesthetics, Narcotics, and the Sick Man."

August 25

A special meeting was held, August 25, to honor President Dean Lewis, of the American Medical Association, and professor of surgery at Johns Hopkins University.

Among the visitors were President Charles Falkowsky, Jr., of the State Medical Society, several officers of the Pennsylvania and the New York State Societies, and physicians from neighboring counties of Pennsylvania and southern New York State. There was a total attendance of 125.

At 11 a.m. Dr. Lewis conducted a dry clinic at the Robert Packer Hospital. Cases of peripheral nerve injuries were presented by Thomas Outland, and 3 case histories of acute abdominal pain were presented by Stanley D. Conklin. Dr. Lewis discussed these presentations, bringing out many points in differential diagnosis.

Luncheon was served at the Iron Kettle Inn, Waverly, N. Y.

The afternoon session was called to order by President Thomas H. Meikle. Dean Lewis delivered an illustrated address on "Injuries to the Soft Parts." He emphasized the importance of always considering the soft parts in any case of trauma, and in addition to the proper care of the injury remember the importance of proper application of dressings, casts, etc. He discussed the mechanism of the development of nerve injuries and their management. In cases of fractures the patient should not be examined merely for the fracture alone, but proper attention should be given to the care of the soft parts.

Donald Guthrie, president-elect of the State Society, spoke on "Medical Economics."

STANLEY D. CONKLIN, *Reporter.*

ERIE—SEPTEMBER

President Maxwell Lick presided.

Dr. James T. Gwathmey, of New York City, spoke on "Anesthesia" at the regular September meeting of the society. For the most part he spared his audience the ordeal of the history of this subject and the attempt at classification. He briefly called the attention of the audience to the fact that the subject was not new, antedated the discovery of ether, is quoted in Scripture and was used, we must infer, at the birth of Eve.

Avoiding any definite classification, he quickly reviewed a few types of drugs and types of administration, stating the important fact was not that one drug or one method was superior to another but all types were best in certain cases if administered by the proper person in the right manner. For example, chloroform is used to a great extent in England, though there are many hospitals that will not permit it to be used in any case in this country. Dr. Gwathmey stated that this drug was contraindicated in children but was, he found, to be used with more safety than ether in chronic alcoholics. Nitrous oxide, a wonderful help to the dental profession who require a short light anesthetic effect, has not been always so acceptable if used in longer operations requiring more relaxation.

Dr. Gwathmey urged that a better knowledge of the effect of the drug used should be had by the surgeon and anesthetist so that they might adapt the proper

drug to the proper case. He used as an example the fact that nitrous oxide and ether may elevate the blood pressure, so should not be used in cases of hypertension but rather ethylene should be substituted. In cases of shock the reverse is found of advantage. He stressed the point that the administration of any drug should be with the effort of changing the normal functions of the body as little as possible, pulse, respirations, and blood pressure.

It was shown that the preparation of the patient for the anesthetic by other drugs and technic, was a big factor in the amount of drug required to accomplish the state of anesthetic desired and to diminish the ill effects of the same drug. In animal experiments he demonstrated that dogs properly prepared required less ether to put them to sleep and could be given greater amounts than controls not so prepared. The cause of death in these cases was found at necropsy to be a congestion of the lung tissue. Physicians were urged not to depend on the old formula of "morphine sulphate gr. $\frac{1}{6}$," as the sole preparation of the patient. He mentioned several drugs that might be of value. While he was confident that the method of inhalation was not the proper method, he also felt that the failures of spinal methods limited this type only to selected cases. This led him to conclude that rectal administration, the entire amount given at once and depending on the slow rate of absorption by the bowel for its control, was likely the best.

The use of rectal anesthesia in obstetrics was then stressed, with the expression of some disappointment on the speaker's part that it was not more generally accepted. Many ardent testimonials were read of its value in this particular line. The doctor stated that the ideal manner for women to bear children was to "go to the delivery room unconscious and return to their rooms in the same condition."

JAMES D. STARK, *Reporter*.

LACKAWANNA—SEPTEMBER

For the first time in many years, during the summer the Society as a group paid a visit to the Hospital for the Criminal Insane at Farview. The superintendent of the institution, Dr. Holbrook and his assistant, Dr. Zeller, headed a tour of the various departments. After luncheon, the 60 physicians were welcomed by the president of the Board of Trustees and Dr. Holbrook, who told of the history and background of the institution. Later, Dr. Zeller read a paper on the "Examination and Recognition of the Psychiatric Patient." It was noted that a large proportion of the patients were in the hospital because of murder, or assault with intent to kill. The psychiatric condition underlying most of these cases was dementia precox. Many of the patients had been under the care of a physician who had not recognized the mental conflict or had not inquired into the social background which formed the basis for the presenting symptom. Too many cases are placed in the category of "harmless," until the "break" comes and they enter the class of the criminal insane. In most instances, there is a definite history of mental instability, or of a psychopathic condition, either disregarded or overlooked by local physicians and persons in authority, until the performance of a criminal act. Careful inquiry into the mental status and environment of "borderline cases" with a sympathetic attempt at adjustment of the mental conflict, keeping closely in touch with the patient and his family, is urged as a duty of the medical profession, both as a protection for the patient and for the community.

One hundred and fifty members and their professional friends attended the annual outing of the county society which was held this year at the Barberry Heights estate of J. T. Sweeney, near Dalton. While the greater portion of the group, enjoyed a round of golf on the adjoining Abington Hills Country Club course, the remainder spent the afternoon participating in an athletic program, quoits and baseball. Dinner was served.

During the month of August, the Child Health Round-Up, as advocated by the State organization, was placed in effect. At stations in all parts of the city, volunteer physicians working in rotation, examined many hundreds of children of the preschool ages and up to the ages of adolescence. The physicians were aided by the local nurses' associations in handling the children and keeping records of the complete examinations. Constitutional defects found were far overshadowed by the very definite evidence of malnutrition seen in many of the children age 2 to 6, the preschool group. Dietary regulation and sufficient food with particular attention to this group represents the most apparent and immediate need.

FREDERIC B. DAVIES, *Reporter*.

LYCOMING—AUGUST

The annual outing was held at the Texas and Blockhouse Clubhouse, August 11. After dinner, a short business meeting was held, President George L. Schneider in the chair. Walter S. Brenholtz, secretary, reported that the budget would not permit having prominent guest speakers unless members were assessed. Rather than curtail the quality of our scientific programs, it was unanimously voted to make the assessment, and money was collected for this purpose.

Two senior members were voted affiliate members, namely, Thomas W. Raper and Joseph W. Albright.

Drs. Raper and Charles W. Youngman were presented with autograph albums, containing the signatures of all members present.

In accepting, Dr. Youngman reminisced of many of the older members and the good old days.

After the meeting adjourned, the afternoon was spent in playing cards, quoits, and trapshooting.

LA RUE M. HOFFMAN, *Reporter*.

Milk Designations.—Numerous cases have come to the Department's attention where dairies have been apparently too free in the use of designations on bottle caps such as double A's, triple A's, Baby Milk, Nursing Milk, etc., which in many instances have been misleading buyers. The Department is at present investigating the practice from the dealer's standpoint to determine whether there is need for more than a designation of Grade A on any milk bottle.

"While it is true," recently remarked Robert F. Brinton, director of the Bureau of Milk Control, "that some of the distributors throughout the State are making an earnest effort to develop a superior grade of milk under the double and triple A labels, a number of other dealers are imitating them, benefiting by their competitors' advertisements, and are selling milk bearing a similar label, but containing a product of ordinary quality. In fact, many times the milk bearing the 'A' label comes out of exactly the same tank as the ordinary milk. It is expected that the conferences now being held throughout Pennsylvania by personnel of the milk bureau will result in the establishment of a definite departmental rule on the subject."—*Pennsylvania's Health*, July-August, 1933.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

MEETING OF THE SECOND COUNCILOR DISTRICT

The annual meeting of the auxiliary of the Second Councilor District was held at the same time as the meeting of the physicians of that district, Thursday, September 14, at Tredyffryn Country Club at Paoli, Pa.

In the absence of the District Councilor, Mrs. George W. Miller, the president of the hostess auxiliary, Chester County, Mrs. John A. Farrell, presided.

Despite the very inclement weather there was an unexpectedly large attendance at both the men's and women's meetings.

Yearly reports were submitted from all the counties that are organized in the District, Schuylkill County not yet having an auxiliary.

These reports showed an increasing interest and understanding of the best methods of work. Much of the activities have been reported in the JOURNAL but the aggregate of things done was surprisingly wide in scope and in amount of accomplishment.

As we listened to the accounts of programs with prominent and eloquent speakers, to reports of contributions to the State Benevolence Fund from all the counties in amounts varying from \$25 to \$100, of work done for the Red Cross, of health talks and demonstrations at Camp Fire Girls' Groups, of the placing of *Hygeia* in public schools and other strategic places, of the placing of equipment in Medical Halls, of money furnished for the needy, of assisting in the State survey of needy children, of exhaustive study of both sides, the question of the cost of medical care, and many other educational and charitable activities, in spite of the closing of two banks which contained funds of the organizations we realize what a large and important place the auxiliaries hold in our communities.

In addition to the charitable and scientific work done, the reports showed many social functions had been arranged and carried out and these are helping to weld the profession into a more firmly united group that will have an increasing influence for good in the health and welfare of each community.

Following the morning session, the auxiliary members enjoyed a luncheon with the doctors and listened to the afternoon program of the Medical Society at which testimonials were presented to physicians who had been in practice for 50 years or more in this Councilor District. A surprising number of hale and healthy doctors were there to prove that the laborious life of the physician does not prevent longevity. Addresses were made by the State President Charles Falkowsky, Jr., and others.

MEETING OF THE SEVENTH COUNCILOR DISTRICT

A meeting of the Seventh Councilor District was held, July 14, at the Woman's Club, Williamsport. Mrs. Walter S. Brenholtz, Councilor for the Seventh District, had left no stone unturned to make it an outstanding day. Drs. Donald Guthrie and William H.

Mayer visited us and brought greetings from the Councilor Meeting of the Medical Society in session at the Country Club. Luncheon was served to 75 guests.

Auxiliary members were welcomed by Mrs. W. Eugene Delaney and Mrs. Farnham H. Shaw responded.

Mrs. Edward Lyon paid a tribute to the late national president, Mrs. Walter J. Freeman. Mrs. Andrew W. Benson, State chairman of District Councilors, gave a résumé of her work, and called upon the county presidents for reports of their activities. Presidents of Clinton, Potter, Tioga, and Lycoming Counties responded.

State president, Mrs. Augustus Kech, Altoona, gave an informative report of the National Auxiliary meeting in Milwaukee in June, and followed with an address, "The Doctor's Wife."

Mrs. Kech took some of the time allotted to her State report in Milwaukee to tell about the Child Health Survey being made in Pennsylvania, and it aroused much enthusiasm, and favorable comment.

Mrs. David Thomas, State Chairman of Periodic Health Examination, outlined her work and introduced Mrs. Wurster who had arranged a short play illustrating the modern woman's attitude toward Health Examinations and the results.

NEWS FROM AUXILIARIES OF OTHER STATES

New Jersey Auxiliaries advocate destroying the ragweed as an effective means of combating hay fever.

The Richmond (Va.) Auxiliary gave a dinner for fifty five-point children and a number of adults. These children had been selected as the most representative of their communities from a wide area of the state.

The Virginia Auxiliary recommends campaigns for prenatal care.

South Carolina and Colorado are among the State Auxiliaries that report flourishing Student Loan Funds as among their major activities.

The Kentucky State Auxiliary sponsors a publication, *The Quarterly*, a supplement to the *Kentucky Medical Journal*.

The Kentucky Auxiliaries are engaged in the following activities: Visiting charity wards in hospitals, taking fruits, flowers, jellies, jams, *etc.*, visiting children's hospitals, taking books, toys, and providing story hours for convalescents. Assisting the Public Health Nurse by furnishing layettes for needy mothers. Showers of linen and clothing for baby or charity hospitals; making surgical dressings and aprons for physicians and nurses in their charity work. Gowns and bed-jackets for tuberculous patients.

Visiting institutions for the aged, furnishing diversion and entertainment for them. Soldiers old and young provided with entertainment.

Donating Christmas trees and entertainment to charity institutions. Providing milk for undernourished children; preparing school lunches at a minimum cost.

Gave first aid tents to Boy Scout Camps and rest tents for Salvation Army Camps.

Baskets of fruit, jellies and jams sent to orphan homes at Christmas; stockings filled for the "Empty Stocking Crusade" at Christmas.

Donations to Community Chests.

Loans to needy physicians and their families.

Each auxiliary should find the greatest need in their county and under direction of the Advisory Board do all in their power to alleviate that need.

Their advice is: Do not undertake too much at first but finish what you undertake. Nothing succeeds like success.

In Alabama there is reported an increase of 90 per cent in membership.

The Pima County (Ariz.) Auxiliary provided medical care for all children needing it in one of the large schools in Tucson in which the enrollment is 100 per cent Mexican.

Members of the Auxiliary to the Richardson County (Nebr.) Medical Society have designed and completed a kit acceptable to and accepted by doctors working on charity cases during the winter.

COUNTY AUXILIARY REPORTS

Montgomery.—A session for members of the auxiliary occurred at the nurses' dormitory, Montgomery Hospital. Mrs. J. Newton Hunsberger presided. Committees were selected and delegates were appointed to attend the State convention to be held at the Bellevue-Stratford Hotel, Philadelphia, October 2 to 5. The delegates appointed include: Mrs. Elwood S. Myers, Mrs. J. K. Williams Wood, of Willow Grove, and Mrs. Harry C. Podall. The alternates, Mrs. Henry D. Reed, Pottstown, Mrs. Edgar S. Buyers and Mrs. G. F. Hartman.

The flower committee appointed includes: Mrs. Herbert B. Shearer, Mrs. John C. Simpson and Mrs. Francis T. Krusen.

W. Burrill Odenatt, vice president of the Philadelphia County Medical Society, guest speaker of the afternoon, spoke on the duties of doctors' wives in relation to the profession.

Mrs. Odenatt, chairman of the State convention Committee Program of the Auxiliary, gave a brief talk on the auxiliary activities.

The next meeting will be held October 11.

Montour.—This auxiliary, operating in the smallest county in the Commonwealth, has been planning a program of activities for the coming year. With the beginning of the new fiscal year an active canvass was begun throughout the county and adjoining counties in which the physicians are members of the Montour County Medical Society for the purpose of securing new members in the local organization. Four new members have already been obtained and there are still other prospective members to be interviewed.

On August 18 the auxiliary met with the Montour County Medical Society, the occasion of the annual summer outing. Arrangements were made at this time for representation at the coming State Convention as follows: Instead of one delegate being appointed those members who are expecting to attend the State Convention were each assigned to some special part of the program for which they are to be responsible for reporting at the next meeting. In this way more constructive information should be brought to the members

than could possibly be obtained through an individual who of necessity would be unable to cover the varied sections during the days of the convention.

Cognizance was taken of the needs of the Medical Benevolence Fund and on motion \$10 were unanimously allocated for this purpose.

On motion, it was decided to continue coöperation with the State nurse in providing both material and labor for furnishing layettes where needed, the money to come from the treasury of the organization and the garments to be made by the individual members.

Northampton.—A luncheon meeting, held September 13 at the Hotel Bethlehem, with Mesdames Earl B. Schlier and Edgar R. Beidelman as hostesses, was presided over by the president. The treasurer reported a balance of \$76.76 in the treasury. Fifty dollars had been donated to the Medical Benevolence Fund. Mrs. W. Gilbert Tillman reported that money submitted by members for the Medical Benevolence Fund made a total of \$116. It was voted to send \$100 of this amount to the Medical Benevolence Fund and deposit the balance, \$16, in the treasury with other contributions. The total amount given the Medical Benevolence Fund this year amounts to \$150. The program of the State Auxiliary convention, held in Philadelphia, October 2 to 5, was read. Following the meeting, the members played bridge.

Hostesses for the October meeting were Mesdames Clarence D. Hummel and Clayton P. Struthers.

A benefit card party was held at the home of Mrs. Tillman on September 23.

Potter.—The auxiliary held its annual meeting and election of officers on July 14 at Old Hickory Tavern, Coudersport. The following officers were elected: President, Mrs. A. Jackson Colcord, Port Allegany; first vice president, Mrs. Robert K. McConeghy, Coudersport; second vice president, Mrs. Henry D. Hart, Genesee; secretary and treasurer, Mrs. Ross H. Jones, Coudersport; *Hygeia*, Mrs. Franklin P. Farwell, Galeton.

A benefit bridge was held on August 10 at the home of Mrs. A. Jackson Colcord, Port Allegany. Although a rainy day, 12 women from Galeton came, a distance of 43 miles; 4, from Genesee, 35 miles; 8, from Coudersport, 17 miles; and 4 from Austin, 17 miles. This party was the first the auxiliary had undertaken and proved such a success that another was held at the Acacia Rooms at Galeton, September 1, and was also a success. There were 12 tables of bridge, the women coming from the various towns of the county in which auxiliary members reside. The proceeds of these parties are to be used to assist the doctors of the county in any relief work that may be necessary.

Warren.—The Woman's Auxiliary to the Warren County Medical Society was organized, July 20, at the Y. W. C. A. Building.

After luncheon the following officers were elected: President, Mrs. Michael V. Ball; president-elect, Mrs. Monroe T. Smith; vice president, Mrs. Roy L. Young; corresponding secretary, Mrs. Irving G. Hyer; recording secretary, Mrs. Erwin S. Briggs; treasurer, Mrs. Ira A. Darling.

A luncheon meeting was held, August 17, in the Y. W. C. A. Activities Building. The guests were Mrs. James D. Stark, president, and Mrs. F. D. Krimmal, recording secretary of the Erie County Auxiliary. Mrs. Stark gave a helpful talk.

At the September meeting, the members were enter-

tained at a tea at the home of the president, Mrs. Michael V. Ball.

Westmoreland.—The auxiliary has held two meetings with the County Medical Society: in July, golf and bridge followed by a dinner at the Pike Run Country Club in the mountains; in August, the annual jaunt to the State Hospital at Torrance. Those who wished visited the institution. Dinner, served on the lawn at the home of the superintendent, was followed by a medical meeting for the doctors and out-door motion pictures for the women at the home of Mrs. Howard K. Petry.

Medical News

Engagements

MISS MARY B. HINES and Mr. Edward B. Hodge, Jr., son of Dr. and Mrs. Edward B. Hodge, all of Philadelphia.

MISS ELIZABETH DARLINGTON SCATTERGOOD, daughter of Dr. and Mrs. Joseph Scattergood, West Chester, and Mr. Edward West Carson, Lansdowne.

Marriages

MISS MARGARET COOK to Dr. Lewis O. Tayntor, both of Erie, Aug. 3.

MISS ALICE BARROW STONE to Dr. Robert Bruce Nye, Philadelphia, June 15.

MISS SARAH DENNISON, Pittsburgh, to Dr. Adolphus Koenig, Jr., Corry, July 8.

MISS MARJORIE ROACH, Princeton, N. J., to Dr. William Rodger Gilmour, Philadelphia, June 15.

DR. MARGARET R. MACM. DOUGHERTY to Mr. Harry Sherman Hodge, both of Mount Holly Springs, July 5.

MISS HOPE POWER WILSON, Ardmore, to Mr. Harry G. M. Jopson, son of Dr. John H. Jopson, Philadelphia, Sept. 6.

MISS FRANCES R. DEAL, daughter of Dr. and Mrs. J. Colton Deal, Philadelphia, to Mr. Humbert B. Powell, Jr., Devon, recently.

MISS ALICE ASHTON MCGLINN, daughter of Dr. and Mrs. John A. McGlinn, Philadelphia, to Mr. Alfred Rauch, Maplewood, N. J., Oct. 7.

Deaths

CHARLES D. WERLEY, Reading; Jefferson Medical College, 1889; aged 70; Apr. 20.

HOMER DEEMS LEH, Lancaster; Jefferson Medical College, 1911; aged 49; recently.

MRS. JULE BENNIS BERTIN, wife of Dr. Elmer John Bertin, Philadelphia; Sept. 5.

THEODORE BAKER, Pittsburgh; Johns Hopkins University School of Medicine, 1904; aged 54; Aug. 11.

WALTER H. COWGILL, Philadelphia; Hahnemann Medical College and Hospital, Philadelphia, 1882; Sept. 1.

ROBERT S. MAISON, Chester; University of Pennsylvania School of Medicine, 1890; aged 67; Aug. 30.

MATTHEW ALVIN BARNES, Pardo; University of Pittsburgh School of Medicine, 1893; aged 69; Aug. 25.

ROBERT GOODMAN, Benton; Medico-Chirurgical College of Philadelphia, 1911; aged 46; July 19, cerebral hemorrhage.

JOHN ROBERTSON BISSELL, Tunkhannock; Jefferson Medical College, 1891; aged 60; Sept. 13, killed in an automobile accident.

CHARLES LELAND ALLEN, Wesleyville; Western Reserve University School of Medicine, Cleveland, 1889; Jefferson Medical College, 1892; aged 74; July 2, cerebral hemorrhage.

JOHN A. GREGORY, Alexandria; Jefferson Medical College, 1883; formerly superintendent of Clearfield schools, and for more than 50 years practiced medicine at Luthersburg and Du Bois; aged 87; Sept. 6.

WILLIAM GEORGE MILLER, Norristown; University of Pennsylvania School of Medicine, 1897; member of the staff of Montgomery Hospital; aged 66; Sept. 6. He is survived by his widow, 2 daughters, and a sister.

VINCENT Z. KEELER, Harleysville; Jefferson Medical College, 1880; practiced medicine for 53 years; vice-president of the Harleysville National Bank; member of his county and State medical societies; aged 75; Sept. 13.

LUTHER M. HOLLOWAY, Salona; Bellevue Hospital Medical College, 1868; aged 89; recently. Dr. Holloway had been in practice for 65 years. At the annual meeting of the Seventh Councilor District, July 14, he was one of 14 who received a testimonial signed by the president and secretary of the State Society as having been in practice 50 years or more.

IN THE DEATH OF MR. WILLIAM ROWEN, aged 82, Aug. 23, president of the Philadelphia Board of Education, underprivileged and physically and mentally handicapped children lost an old and stalwart friend, although his efforts on their behalf during the more than a quarter of a century he served on the Board of Education now are inherent in the public school system. He was instrumental in starting many special classes for these children. Sight-saving classes were provided for children with seriously handicapped vision; the deaf, the undernourished, and tuberculous were given special attention, and for the crippled, mentally deficient, and those requiring special training, courses were created. Americanization classes organized under his direction served as models for other communities.

HARVEY MAYOR BECKER, Sunbury; University of Pennsylvania School of Medicine, 1898; aged 60; Aug. 28, cerebral apoplexy.

Dr. Becker was born at Hanover, Pa., the son of George and Lucy Anne Becker. He attended the public schools of Hanover and prepared at Gettysburg College. Immediately after his graduation, he came to Sunbury to practice and remained there. Dr. Becker took postgraduate work at the Philadelphia Polyclinic Hospital, the New York Polyclinic Hospital, the New York Eye and Ear Infirmary, and the New York Eye, Ear, and Throat Surgery Hospital.

Following the death of the late Dr. Horatio W. Gass, Dr. Becker was appointed superintendent of the Mary M. Packer Hospital, Sunbury, which position he filled until the time of his fatal illness. He remained superintendent of the hospital in spite of his condition, although not active. He was a member of its surgical staff for many years. For a number of years he was a member of the surgical staff of the Geisinger Hospital at Danville, but later relinquished this position to devote time to the Mary M. Packer Hospital. He was always a civic leader and was intensely interested in every community movement that was undertaken. He was a leader in the Boy Scout movement. He was a trustee of First Presbyterian Church; a charter member and past president of the Sunbury Rotary Club; a member of the Chamber of Commerce, Northumberland County Medical Society, Pennsylvania State Medical Society, American Ophthalmological Society, American Medical Association, and the Philadelphia Laryngological Society.

He had been in failing health for nearly 11 years and seriously ill the past several years. In 1922, Dr. Becker, who was then in failing health, was operated upon at the Mary M. Packer Hospital for an intestinal growth. He failed to improve and one year later underwent another operation at a hospital in Philadelphia.

He suffered 2 strokes, dying shortly after the second one. His widow and daughter survive.

Miscellaneous

PAUL R. CORRELL, Easton, addressed the Northumberland County Medical Society, Sunbury, Sept. 6, on "The Medical and Surgical Aspect of the Upper Abdomen."

GEORGE G. REESE, of the Shamokin State Hospital, has been granted a year's leave of absence to recover from his recent illness. Dr. William Lewis will take his place on the staff of the hospital during his absence.

COMMANDER L. H. RODDIS, M.C., U. S. Navy, was recently selected the new editor for the *Naval Medical Bulletin* and ordered to the Bureau of Medicine and Surgery to take charge of the Division of Publications.

THE PUBLIC WORKS ADMINISTRATION, Washington, D. C., Aug. 30, allotted \$2,250,000 for completion of the Naval Hospital at Philadelphia. The project is now 30 per cent complete and the funds allotted will be sufficient to finish it.

SECRETARY WALTER F. DONALDSON, of our State Society, has returned from a transatlantic voyage. While in "dear 'ole Lumm'n" no doubt he acquired some general information from the British Medical Association that will interest our membership.

THE OLIVER MEMORIAL RESEARCH FOUNDATION of St. Margaret Memorial Hospital, Pittsburgh, is producing fly larvæ in excess of its own needs, and can furnish them on 24 hours' notice to those interested in the Baer viable antiseptic treatment of chronic osteomyelitis.

THE *Washington (D. C.) Star* ran a cartoon entitled "The Jack-of-All Trades." It was in regard to a Sharon, S. C., man "who is a practicing physician, president of the bank, mayor of the town, and policeman of the burg." Hugh Johnson pointing to the record exclaims, "Now what'll I do with a guy like that?"

COLONEL JOHN H. McCULLOUGH, Trenton, has been named surgeon general of New Jersey by Governor Moore, succeeding Colonel Joseph Rector, Jersey City, who retired more than a year ago. Col. McCullough is commander of the 119th Medical Regiment, New Jersey National Guard, and also division surgeon of the 44th Division.

THE ANNUAL OUTING of the Lycoming County Medical Society was held, Aug. 11, at Texas and Blockhouse Fish and Game Club, with 65 members and guests present. Dinner was served. A short meeting of the Society was held. Following the custom for the past 8 years of presenting to those members who have attained the age of 75 during the year, a leather bound album containing the picture, history, a statement of appreciation, and the autographs of the members, President George L. Schneider presented the "Appreciation" this year to Charles W. Youngman and Thomas W. Raper.

MRS. MABEL BASSETT, Oklahoma commissioner of charities and corrections, said Aug. 19, 1933, she had found evidence to indicate 3 Tulsa physicians were conducting a "baby market" by selling children to cover hospitalization costs of girl mothers. Oklahoma has no law under which doctors may be prosecuted for bartering in babies.

Mrs. Bassett said the evidence she has obtained will be presented to the Tulsa County Medical Society for such action as it sees fit to take. Four children were sold to foster parents for sums ranging from \$71 to \$100. Under Oklahoma adoption laws the purchasers may retain custody of the children.—A. P.

ALFRED GORDON delivered the first of a series of public lectures at Mount Sinai Hospital, Philadelphia, Sept. 27, on "Prevention of Nervous and Mental Disorders." Coming lectures in the series are: "Heart

Disease," Joseph Edeiken, Oct. 25; "Sinus Infection and Its Consequences," Morris Weinstein, Nov. 22; "Care of the Eyes," C. W. LeFever, Dec. 27; "The Child Who Won't Eat," Arthur M. Dannenberg, Jan. 24; "Backache and Flatfeet," M. B. Cooperman, Feb. 28; "Cancer," Bernard Mann, Mar. 28; "Diabetes," A. I. Rubenstone, Apr. 25; "How to Reduce Safely," Frank E. Leivy, May 23.

These meetings are scheduled for Wednesdays at 8:30 p.m. The talks are free and the lay public is invited.

THE DIVISION OF SAFETY of the Department of Revenue has issued the following motoring news: Accidents in which only one car is involved must be reported to the Department of Revenue if the property damage amounts to \$50 or more. The accident also must be reported even though only the operator or one passenger is injured and the property damage is less than \$50.

Bicycles ridden at night must be equipped with a lighted lamp in front and reflex mirror or red lamp in the rear, both visible for 200 feet.

Members are cautioned against picking up hitchhikers along the roads. Unsuspecting drivers who heed requests for rides from strangers often are the victims of attack or robbery.

THE FOLLOWING BEQUESTS have recently been made: St. Vincent's Hospital, Philadelphia, \$1000, will of the late Jacob Kappler.

Friends Hospital, Frankford, \$10,000, will of the late Mrs. Alice H. Yarnall.

Women's Homeopathic Hospital, Philadelphia, \$5000 from his \$49,000 estate, and the bulk of the residue in trust, the income to be used in providing free hospital beds in Philadelphia and adjoining counties at the discretion of executors, will of the late John W. Shuler.

Miss Mabel Hancock, late of Philadelphia, bequeathed her \$10,000 estate in trust to an aunt, to be shared at her death by the Women's Homeopathic Hospital, Hahnemann Medical College and Hospital, etc.

THE MANUFACTURE of VERMOUTH and apple brandy, better known as "applejack," has been added to gin as a legitimate activity for authorized distilleries by an order received from Washington, Aug. 30, 1933, by the supervisor of industrial alcohol at Philadelphia. The supervisor announced the order authorizes him to accept applications from distilleries and give permission to manufacture these 2 beverages where the necessary qualifications are presented.

The instructions constitute a second order issued within a few days, whereby the Federal Government sanctions the manufacture of alcoholic concoctions for medicinal purposes. Several days previously a permit was issued by the Bureau of Industrial Alcohol to a Philadelphia concern, allowing them to manufacture gin. It is expected that the gin will be on sale in local drug stores within a week, since this beverage, unlike whiskey, does not need to be aged; \$1 per pint, \$2 per quart.

A physician's prescription will be necessary to obtain either gin, apple brandy, or vermouth. The quantity obtainable on a prescription is restricted only by the patient's pocketbook and the doctor's conscience.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

THE OPERATIVE STORY OF CLEFT PALATE.

George Morris Dorrance, M.D., F.A.C.S., professor of maxillo-facial surgery, the Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania; surgeon to Saint Agnes' Hospital and to the American Oncologic Hospital, (Continued on page xii.)



PORTRAIT OF A LADY WHO LOVES A DOCTOR

THE very big smile on this very little lady is a greeting to her doctor. She has quite a case on him. And he, shameless fellow, on her. But the course of their love is studded with pitfalls. For when clinical thermometers, tongue depressors, and medicine come in the door, love is likely to fly out of the window.



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BOOK REVIEWS

(Continued from page 80.)

Philadelphia. Assisted by Enayat Shirazy, D.D.S. 564 pages with 534 illustrations. Philadelphia and London: W. B. Saunders Co. 1933. Cloth, \$6.50 net.

This book is the outstanding work of its kind. A careful study of the original writings of each contributor was made by the author, hence it is a work of historical accuracy and covers the subject matter from time immemorial to the present in a very creditable manner. The illustrations used by the pioneers in this special branch of surgery have been borrowed freely. They are clear, interesting, and instructive.

Supplementing his investigation of the literature, the author dwells on his views of the function of the "palatopharyngeal splincter," and his evaluation of the different procedures for the treatment of cleft palate. As stated in the concluding chapter, the value of any operation on the palate is judged by the speech result. The secret of obtaining good speech in cleft palate patients is to establish complete velopharyngeal closure. By most procedures it is impossible to restore this function in cleft palate patients in whom the palate is short, but the author has succeeded in a gratifying manner by the use of his "push-back operation" which he has used for the past eight years. The method is aptly described and clearly illustrated in this chapter.

There is a comprehensive bibliography, for those who wish to pursue further details on the subject. To the surgeon interested in cleft palate surgery, this book will prove of invaluable aid, and is recommended most highly.

FRONTIERS OF MEDICINE. Morris Fishbein, M.D., editor, *Journal American Medical Association and Hygeia*, the Health Magazine. Century of Progress Series. Baltimore, 1933, The Williams and Wilkins Co., in coöperation with the Century of Progress Exposition. Pages 1 to 207, inclusive.

This book should be in the hands of every medical student for information, guidance, stimulation, and challenge. The title is unique and timely, emanating from Chicago during the celebration of A Century of Progress by that city. Dr. Fishbein speaks and writes well as he is so qualified to do. The book should have a large circulation.

THE INTERNATIONAL MEDICAL ANNUAL—

A Year Book of Treatment and Practitioner's Index. Editors: Carey F. Coombs, M.D., F.R.C.P. (the late) and A. Rendle Short, M.D., B.S., B.Sc., F.R.C.S. Price, \$6.00. William Wood & Co., Baltimore, Md.

A fifty-first publication is proof of the popularity of any book. This is a year book in the treatment of disease. As the editor says in the *Introduction*, no very striking discovery has been made in medical science during the year under review, but a steady advance has been made along a wide front.

The year's work in pernicious anemia is extensively noted. We know that the troublesome symptoms of degeneration of the cord are unaffected by the liver treatment, but the authors state that large doses of iron will materially improve these patients.

The recently much-discussed high carbohydrate diets, with the reduction of fat, may prevent a large number of deaths from cardiovascular diseases, in diabetes. Artificial pneumothorax, which is taking a prominent place in pulmonary tuberculosis, is ably reviewed in this volume. Powders and lotions are better than ointment in the relief of pruritus ani.

New ventures in anesthetics are discussed and informative as well as the latest investigations for relief of pain in obstetrics and gynecology.

Altogether to the doctor in active practice it is an excellent summary of interesting features of medicine during the last year, and a valuable book for easy reference.

(Concluded on page xiv.)



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BOOK REVIEWS

(Concluded from page xii.)

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION: Vol. XXIV—1932. Edited by Mrs. Maud H. Mellich-Wilson and Richard M. Hewitt, B.A., M.A., M.D. Octavo of 1205 pages with 233 illustrations. Philadelphia and London: W. B. Saunders Co., 1933. Cloth, \$11.50 net.

This volume contains 99 papers reprinted in full, which were written in 1932 at the Mayo Clinic, also 22 which were abridged and 36 which were abstracted. The subjects included are those which are acceptable to the general practitioner, diagnostician, and general surgeon. The material covers conditions involving all the systems of the body, including sections on radiology, anesthesia and gas therapy, and laboratory technic. There is also a section which gives one the experiences and observations which various men have made on certain subjects such as the cancer problem, observations on obesity, practical aspects of allergy, *etc.* It is written in an intensely interesting fashion, giving the latest developments and thoughts in the medical and surgical field.

PRINCIPLES AND PRACTICE OF OBSTETRICS. Joseph B. DeLee, A.M., M.D., professor of obstetrics and gynecology at the University of Chicago; chief of obstetrics, Chicago Lying-In Hospital and Dispensary; consulting obstetrician to Provident Hospital, to the Chicago Maternity Center, *etc.* Sixth Edition, thoroughly revised. 1165 pages with 1221 illustrations on 923 figures, 265 of them in colors. Philadelphia and London: W. B. Saunders Co., 1933. Cloth, \$12 net.

In the preface to this the sixth edition the author finds greater difficulty to keep the amount of material within the limits of one volume; and further that there will be found fewer changes in the chapters devoted to the practical application of obstetric principles, because very little of the old is being disproved.

The reviewer much prefers a textbook written by one author and limited to one volume; there is everything to commend this principle. The reviewer still believes this compilation by Dr. Lee continues the best for the student and graduate and should be on the shelves of every practitioner as a most excellent reference book on obstetrics. More especially is this true as the preface states since the vast majority of births still occur at home and in the hands of the family doctor, "the obstetrician to the people," very conservative advice, fitted to the conditions under which he is compelled to work, has been given.

The author warns of the necessity of proper prepartal care, especially the recognition of contracted pelvis and the extent thereof, better to determine the efficient conduct of labor in such cases, rather than practice indeterminate procedure of longer or shorter tests of labor, with the frequent disastrous results, which are to be obviated by the proper interpretation of pelvic contractions and delivery by early cesarean section.

As to eclampsia the author still believes it is a form of toxemia, but still not knowing the cause the treatment is all empiric.

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IMPORTANT APPLICATIONS OF THORACIC SURGERY*†

JOHN ALEXANDER, M.D., ANN ARBOR, MICH.

I shall present for your consideration several thoracic diseases in which not only the need for successful treatment is great but in which thoracic surgery is producing astonishingly good results.

Pulmonary tuberculosis is a sadly neglected disease in most communities. Until the sanatorium began to popularize rest and good hygiene more than 50 years ago, phthisis was generally considered to be virtually a hopeless disease. But rest and good hygiene fail to cure a discouragingly large percentage of tuberculous persons, especially if their lesions have advanced beyond the early stages. Every physician is aware of the somber prognosis of tuberculosis when there is cavitation in the lung, as there so commonly is. Too few physicians know that induced pneumothorax or various surgical operations are indicated in more than two-thirds of all patients with clinically active tuberculosis and the results are so good that those who are thoroughly familiar with them would no more be willing to abandon these therapeutic measures than they would diphtheria antitoxin in the treatment of diphtheria.

None of the operations that we are considering makes any attempt to remove the tuberculosis lesions. In various ways and in different degrees, they bring about functional rest of the diseased lung and relax or compress it and its contained cavities. As a frequent result the cavities are closed and increased growth of fibrous tissue encapsulates the lesions. These effects heighten the patient's resistance to his disease and complete cure is often effected. It should be understood that pneumothorax and surgery do not supplant the sanatorium regimen; they are complementary to one another.

Until only a few years ago it was believed that pneumothorax and surgery should not be used

unless the active tuberculosis lesions were limited to one lung. This restriction has been found to be unnecessary in the majority of cases because the lesions in the less diseased lung frequently heal after those in the more diseased lung have been controlled. Further, various types of operation are now being successfully applied bilaterally, either simultaneously or alternately.

The almost infinite variety of forms through which pulmonary tuberculosis manifests itself requires that there be a wide choice of therapeutic measures. Only those that I have found useful will be named: Induced pneumothorax; open or closed intrapleural pneumonolysis for those cases in which adhesions of a certain type prevent a pneumothorax from being successful; temporary or permanent interruption of the phrenic nerve; partial resection of the scalene muscles; temporary or permanent interruption of the intercostal nerves; extrapleural pneumonolysis and filling of the extrapleural space with a special paraffin mixture; extraperiosteal pneumonolysis and filling of the space between the lung and the bared ribs with pedicled muscle or gauze; and extrapleural thoracoplasty in its various forms.

Perhaps the greatest advance that has been made in the surgical management of pulmonary tuberculosis during recent years is recognition of the importance of starting treatment with the simplest measure that has a reasonable chance of healing the lesions and then proceeding promptly with some other prescribed measure if the preceding one has failed. It frequently happens that a successful clinical result follows the successive use of several procedures which have had the effect of serving as supplements to one another. With regard to thoracoplasty, I can scarcely over-emphasize the importance of the technical advances that have been made during the past few

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

† From the University of Michigan Medical School.

to the effects of cold or climatic changes upon these parts. Vascular changes, whether of arterial or of venous type, are also potent for pain. Goldthwait has stressed this factor in his studies of the effects of posture upon body health and function and has shown conclusively that in many instances bad posture profoundly influences the circulation and hence the functional activity of those structures concerned with health and work. The number of cases in which there is alteration of the normal relations and curves of the spine is very great and one is constantly impressed by the adaptability of the human tissues to abnormal conditions and the very wide margin of safety which nature bestows upon many patients. No organ, however, can function properly without good circulation and whatever agent or condition hinders or obstructs this vascular flow must be eliminated in order to restore health.

Direct injury, as a fall or twist, may give rise to local pain but the onset is immediate and there is local tenderness over the involved part. Immediate rest (by whatever means accomplished), application of heat and, as the symptoms lessen, the use of local massage and physio- or hydrotherapy gives the best relief in such cases. One must always bear in mind, however, that an injury to muscle, tendon, or fascia gives rise to scar tissue and that this may remain painful for a long period of time or until the structure can regain normal circulation and nerve function. Sprains are a common result of injuries and present an immediate onset of disabling symptoms which in the absence of evidence or suspicion of more serious trouble, should be treated much the same as a direct injury. In all cases, especially if there is a question of liability, a roentgen-ray study of the part should be made to eliminate possible injury to bony parts. In addition to trauma, the possibility of immediate or remote effects of toxins on a part whose resistance has been lowered by functional or other injury, should be kept in mind. A laborer with badly diseased teeth or other foci of infection, or who suffers from disturbed metabolism or intestinal dysfunction, is much more likely to develop prolonged or lasting disability following back-strain than is one whose system is free of such poisons. This relationship occurs much more frequently among industrial workers and the equitable determination of the relative significance of the two etiologic factors in a given case becomes a difficult and at times a serious problem. A low back sprain, uncomplicated by a constitutional toxemia, should recover in two or three months and if the pain persists for a longer period, a toxic influence or involvement

of other than soft structures should be suspected and the case studied from that standpoint.

The third factor in low back pain concerns the bony parts, including bones, joints, periosteum and cartilage attachments. These structures may be involved in several different ways. There may be some alteration in the vertebral relations, changing the lines of weight-bearing, as a sequence of injury (recent or remote), disease (acute or chronic), or developmental alterations from faulty posture during years of growth.

There may be marked forward bending of the lumbar spine with a compensatory increase of the posterior bend in the dorsal region. There is greater prominence of the abdomen with possible increased deposit of fat in the walls and omentum and at times sagging of the viscera. The hips are quite prominent and the knees sag backward. The normal inclination of the pelvis is markedly changed and the line of weight-bearing runs anterior to the acetabula and trochanters and the strain upon the lumbosacral region is greatly increased. A lateral roentgen ray of this region will show great widening of the intervertebral spaces anteriorly and narrowing posteriorly; the spinous processes may be in contact and the angle at the lumbosacral junction will be greatly exaggerated. This change throws the strain of support of the torso upon the articular processes and the anterior spinal ligaments and any contraction of the lumbar muscles aggravates the forward thrust and increases the strain. If such a case is injured by sudden or severe jar in the erect position, this joint may be so weakened or altered that the body of the fifth lumbar vertebra may slip forward on the sacral segment and a partial dislocation result (spondylolisthesis). In these cases of exaggerated lordosis, secondary changes are apt to occur in the bony parts if other influences are present, hence the great importance of early recognition of faulty alignment of the spine and the institution of proper treatment for its correction. Occupation can necessitate a posture that throws strain upon the spinal structures and this should be considered in the choice of measures for relief of pain. If the muscles are weak, they can be strengthened by appropriate exercises and the development of a proper posture or if they will not readily respond to this, some form of protective support can be applied. Physical therapy in its various forms can be used to very great advantage under intelligent or competent supervision, but as ordinarily followed out is of little advantage. If occupation requires a strained posture, there should be either a physical development to meet this demand or the use of some external or internal support or a change in occupation.

The drooped shoulders and posterior-curved dorsal spine in the young and growing child will, if allowed to persist, result in permanent alteration of the shape of the vertebral bodies and when maturity is reached, the spine will be found structurally weaker than the normally formed one. Such spines when subjected to strain will develop steadily progressive pain and disability and will readily take on other complications in the presence of constitutional disturbances. It is conceded by all anatomists and clinicians that congenital variations and abnormalities are more frequent in this part of the body than in any other and in a study of 200 roentgenograms of the lumbosacral spine taken for other conditions than low back pain, 85 per cent showed congenital abnormalities of various types (Pfahler). Though a causative relationship between these abnormalities and pain or disability has been denied by some authors, the relationship has been proved by the relief which followed the correction or neutralization of the abnormality. A malformation or gross variation from the normal constitutes a weak spot in any formation. Nature, in many instances, adjusts the surrounding parts to the change and the ordinary strains of life and function are not felt by the part until it is subjected to undue or unusual strain, and then it will give way sooner than a normal one. There is commonly found in this region an occult spina bifida involving one, two, or three vertebræ. There may also be incomplete closure of the laminae or the pedicles on one or both sides; or some alteration in the planes of the articular facets on one or both sides; or the formation of a sixth lumbar vertebra out of the first sacral segment; or a sacralization of one or both lateral processes of the fifth lumbar causing a profound disturbance of balance on the two sides; or the complete sacralization of the fifth lumbar vertebra leaving four in the lumbar spine. There may be a hypertrophy of one or both lateral processes of the fifth lumbar with impingement of one or both against the side of the ilium or the top of the sacrum with occasionally a distinct articulation between the parts. With the incompleteness of the laminae or the pedicles there may result a spondylolisthesis in the presence of injury or strain. Disease or traumatic compression of the vertebral body may permit alteration of relations which will give rise to strain and pain. There may also be found a marked variation in the size of the vertebræ and bony pelvis in comparison with the size of the individual, a large man or woman having small bones, and it is fairly common to see quite small and shallow sacro-iliac articulations in an otherwise normal individual. Thus

it will be seen that in many cases of persistent low back pain, a skeletal variation exists which must be recognized and dealt with to secure relief.

Another very frequent factor in adults is the presence of inflammatory changes about the articular edges of the vertebræ, the sacrum, and the ilia. These changes have two causes—trauma (whether functional or direct) and toxins which may arise from focal infections in various parts of the body or from gastro-intestinal disturbances of putrefactive or pyogenic type, or from altered metabolism caused by malfunction of the ductless glands similar to those occurring in gout, chronic arthritis, fasciitis, *etc.* Increasing age, with its natural change in the rate of waste and repair, and the slowing up of elimination or the increase in the rate of breaking down of tissues favors the overloading of the system with waste products which in the presence of lowered resistance from functional or direct trauma will result in deposits about the joint edges. Here again, disturbance of circulation following the periartritic injuries is the main factor in the deposition of the waste material though more than one influence may be at work in the individual case. In this type of patient, the symptoms are more persistent and lasting and one often finds the etiology most elusive and puzzling. The roentgen ray will frequently show early deposits about the joint edges and especially early in the lower part of the sacro-iliac joints in which the strain from the upright position is greater. If such deposits are present, the suspicion of irritation about other joints in the pre-deposit stage justifies further search for such complications as may be responsible for the pain.

Asymmetry in the length of the legs whether of congenital, traumatic, or pathologic origin will frequently give rise to low back pain and the results following the equalization of these members are at times brilliant. In these cases, a careful inspection of the bared back and hips will reveal a spinal deviation to the low side or a difference in the level of the gluteofemoral folds or both. The pain is always made worse by walking or exercise and is usually localized in the lower lumbar region though may involve the spine higher up or the sacro-iliac joints. Relief quickly follows alteration of the heels of the shoes sufficient to equalize the legs and overcome the tilting of the pelvis.

Probably the most common diagnosis in low back pain is sacro-iliac strain or dislocation, especially if there is a history of injury. There has been a great deal of controversy among orthopedic surgeons regarding the frequency of this condition and the now generally accepted

opinion is that while it can occur, it is seldom seen. The error in diagnosis arises mostly from failure to carry investigation far enough and to evaluate properly other signs and symptoms which should have arrested attention. If the sacro-iliac joint is involved, the pain will center directly in that part and in some cases will radiate down the sciatic nerve, especially if there is sufficient alteration of relations of the sacrum and ilium to cause tension of the neighboring branches of the sciatic plexus. Roentgenograms are generally unreliable though the reading into them of such a condition is very common because of apparently wide separation of the articulating parts. It should be remembered that the space between the sacrum and ilium varies greatly in individuals and an actual disturbance of relation can be shown only if there is alteration in the alignment of the upper and lower edges of the joint. If an actual slipping has occurred the pain is intense and constant until manipulation restores the normal relations. Should chronic irritation of the joint and strain of the periarticular parts occur, it is quite common to find an associated sciatica; and if a sciatic neuritis becomes established, recovery will be much more prolonged than if the joint alone is involved. An excellent diagnostic and therapeutic test for sacro-iliac strain or relaxation is the careful and thorough application of adhesive strips from Poupart's ligament on the affected side over the joint and about the pelvis to nearly the same point on the opposite side. If positive relief obtains, the diagnosis is confirmed and a proper and efficient pelvic belt should be applied. Most of those on the market are of no value whatsoever. Such a support should be as simple as possible and should exert most pressure below the iliac crest. Many have found an old-fashioned surcingle or similar contrivance most efficient. Then, too, it is a common observation that an arthritis becomes engrafted upon the sacro-iliac lesion which will create the most troublesome complication that may arise and unless the causative focus of infection or toxemia can be found and removed, the disability will become permanent.

In the study of these cases, certain routine procedures should be carried out. These are:

(1) A differential blood count to determine the presence (or absence) of infection. Many clinicians disregard a leukocytosis of less than 10,000, but the organism of infection most common in these low grade arthritides is so attenuated and mild that it may not cause an active increase of white blood corpuscles. Therefore, in the presence of clinical symptoms, a count

above 8000 should be considered strong evidence of the presence of pyogenic organisms.

(2) Indican in the urine is evidence of gastrointestinal disturbance caused by putrefactive or septic processes. In the ordinary routine examination of the urine, this substance may not be found and yet if a specimen from each urination is examined separately there will be frequently found a large amount of indican in two or three and only a trace or none at all in the others, showing the interrupted character of activity of the intestinal processes.

(3) No diagnosis of the causative conditions can be said to be complete without roentgen-ray study of these parts. This should be made in a systematic manner and not based upon a single plate. In a gross condition, an anteroposterior view of the lumbosacral parts may reveal the cause of the trouble but in many of the obscure ones, the exposures must be made at different angles to determine accurately the disturbing factors.

(4) Another test for the possible cause and location of the pain is by strapping with adhesive plaster. If the lumbar spine, the spinal muscles or the para-spinal structures are the ones involved, the adhesive strips should be applied vertically from about the middle of the scapulæ to the buttocks and held in place by several cross straps at various levels, but if the pain is in the region of the sacro-iliac joints the strips should be applied horizontally as before described.

This brief consideration of some of the more common causes of low back pain will afford a slight concept of the breadth of the field which must be explored in the solution of many of the cases. Whosoever would secure the best results must approach the subject with an open mind and be prepared to follow every lead suggested by the carefully developed history of every such patient he is called to treat.

We would therefore sum up the subject in the following paragraphs:

(1) Low back pain is a most common complaint among patients of the general practitioner.

(2) It is merely a symptom and is not a disease or entity, therefore must not be treated as the basic condition.

(3) It is part of a symptom-complex and should always be considered in connection with the other manifestations of disability and disorder.

(4) A diagnosis of rheumatism, lumbago, or strain is not justified unless supported by other evidences of these conditions.

(5) Subluxation of the sacro-iliac joint is a much less frequent occurrence than generally

supposed and can be readily verified by strapping or belting.

(6) Congenital malformations are common in the lower back and are the "weak link in the chain" of the skeleton.

(7) Pain can be reflex pain from the appendix, the kidneys and ureter, or from the prostate and seminal vesicles and a history of a gonorrheal infection at any time is always suggestive of latent trouble in these parts.

(8) Injury of any type can develop pain and

this can be continued by the toxins from a local focus of infection through the development of arthritis and inflammatory deposits about the injured region.

(9) The physician should not fail to make an intensive study of his case including blood, metabolism, roentgen rays, urine, and any other investigation that can assist in arriving at a proper diagnosis of the underlying cause of the low back pain.

Medical Arts Building.

CLINICAL MANIFESTATIONS OF VITAMIN B DEFICIENCY IN ADULTS*†

K. O'SHEA ELSOM, M.D., PHILADELPHIA

It is the purpose of this paper to describe a case of early vitamin B deficiency encountered in the Gastro-Intestinal Section of the University of Pennsylvania Hospital. The symptoms and physical signs presented by this patient will be emphasized and certain similarities between them and the typical manifestations of Addisonian anemia will be noted.

Vitamin B is now recognized as a complex substance. It is made up of at least two distinct factors which are known as vitamin B₁ and vitamin B₂ or G. Complete absence of B₁ from the diet results in beriberi. A diet entirely lacking in B₂ will produce pellagra. Both diseases are fatal unless the specific missing vitamin is returned to the diet. Pellagra and beriberi result from extreme deficiency of the two vitamins. Mild or partial deficiencies of B₁ and B₂ have, so far as I am aware, never been described as clinical entities. It is commonly held, moreover, that such deficiency is impossible in this country because of the widespread distribution of both vitamins B₁ and B₂ in common foodstuffs. It is true that both vitamins are present in most foods. It has recently been shown, however, by Dr. Cowgill of Yale University that, although widely distributed, the vitamins exist in many foods in concentrations so low that large quantities of these foods must be consumed to protect from deficiency. For example, it is calculated that for an average adult to obtain sufficient vitamin B₁ from milk alone he must drink two quarts daily. It is reasonable to expect, therefore, that clinically detectable early deficiency of both vitamins B₁ and B₂ may exist. The following case illustrates this point.

REPORT OF A CASE

The patient, a woman, age 56, had been essentially well until 6 years prior to admission to the clinic. Her first complaint at that time was profound fatigue which was constantly present and greatly restricted her activity. This was followed by a complete loss of appetite and a sensation of rawness extending from the mouth down into the esophagus. Soon she developed palpitation on mild exertion; she often felt drowsy and stuporous and gradually she became aware of intermittent numbness and tingling of the lower extremities. The symptoms all persisted without remission. One year prior to entry she noticed that, in addition to her other symptoms, her tongue was sore. There was a constant burning of its entire surface and it was red and smooth. There then followed dyspnea on moderate exertion and vertigo. The skin of the forearms became dry and scaly, the finger nails were brittle. Except for mild constipation, there were no gastro-intestinal symptoms other than those mentioned.

On admission it was found that the patient's diet had been voluntarily restricted for the past 10 years and consisted almost entirely of tea and cake. The restriction had originally been made because the patient believed herself to be too busy to take time to eat. She soon lost her appetite and ate only when she felt faint and never because she had any desire for food. As nearly as can be judged her vitamin B intake during this time was about one-quarter of that contained in a normal diet.

The patient's appearance strongly suggested pernicious anemia. The skin was unusually pale, the tongue was very red, smooth, and glistening. Patellar and Achilles reflexes were definitely exaggerated, whereas perception of vibratory sensation was impaired in both lower extremities. A striking physical finding was the presence of pitting edema of both legs. There were no other significant physical signs.

Gastric acidity was normal. Red blood cells were 4.5 million; they were normal in size and shape. Hemoglobin was 90 per cent; reticulocytes, 0.6 per cent. The serum proteins were found to be 5.47 grams per cent, a definite reduction from the average normal figure of 7.5 grams per cent. Exhaustive studies of cardiac and renal function gave consistently normal figures. The basal metabolic rate was +13 per cent.

It became apparent that we were dealing with a disease which closely resembled pernicious anemia in many

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

† From the Gastro-Intestinal Section of the Medical Clinic of the University of Pennsylvania Hospital, Philadelphia.

pects: Pallor, glossitis, involvement of the posterolateral columns of the spinal cord, but in which the characteristic findings of achlorhydria and anemia were lacking. Liver therapy was instituted on the assumption that if this were a case of Addisonian anemia in hematologic remission, definite improvement in the remaining symptoms would result from this therapy. The response obtained can best be illustrated by referring to Chart No. 1. In this chart each symptom is represented diagrammatically by heavy black sections. Changes in intensity of the symptoms are indicated by changes in the height of the sections. The patient was kept in a con-

of pernicious anemia because of the marked pallor, the glossitis, and the symptoms and signs of posterolateral sclerosis. The typical findings of pernicious anemia, achlorhydria and anemia, were lacking. When liver was administered in a dosage adequate to produce a remission in pernicious anemia there was no response, with the exception of some improvement in the glossitis. When, however, vitamins B_1 and B_2 were administered there was rapid improvement in all the findings: Fatigue, anorexia, dyspnea, vertigo, paresthesias, edema, glossitis, scaling of the forearms, and brittleness of the nails. This improvement began in two weeks and was complete at the end of six.

It was concluded, therefore, that all of the patient's symptoms and physical signs were due to a deficiency of the vitamin B complex. The improvement of the glossitis during liver therapy is believed to be due to the fact that liver contains measurable amounts of vitamin B_{12} . The close resemblance of many aspects of this case to the characteristic picture of pernicious anemia suggests some common factor between the two. It is noteworthy, however, in view of recently published papers by Castle and others, concerning the possible connection between vitamin B_{12} deficiency and the macrocytic type of anemia seen in pernicious anemia, that this patient at no time showed anemia or detectable impairment of gastric secretion.

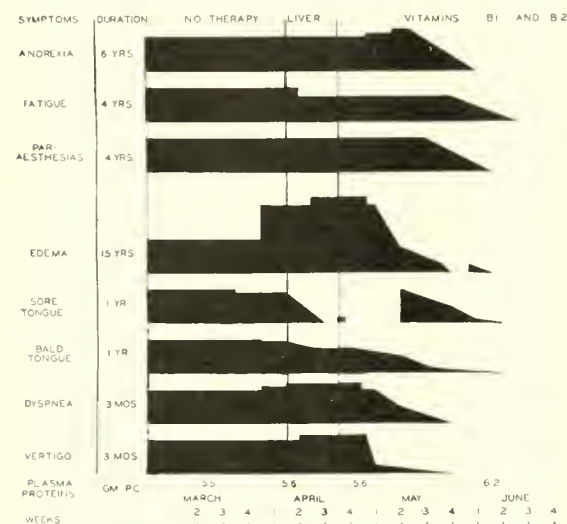


Chart No. 1.—Chart showing the symptoms, physical signs, and response to therapy of a patient deficient in the vitamin B complex.

trol period without therapy from March 1 to the first week in April. At no time was there any change in the original diet. Twenty cubic centimeters of liver extract were given intramuscularly over a two-week period. During this time there was improvement only in the glossitis. The other symptoms either remained stationary or became aggravated. There was no reticulocyte response. From this failure to improve on liver it was concluded the patient was not a case of pernicious anemia. In view of her restricted diet, vitamin B deficiency was considered possible. Vitamins B_1 and B_2 were, therefore, administered, no attempt being made at this time to separate the two vitamins. They were given in the form of a powdered yeast concentrate from which protein is removed. Two tablespoonfuls of this material were given twice daily. Two weeks following inauguration of this therapy the edema was decreased. There was improvement in the dyspnea and vertigo. Other findings were essentially unchanged, except the sore tongue which had returned. Six weeks after beginning vitamin therapy all symptoms and signs had disappeared with the exception of exaggeration of the reflexes in the lower extremities and some impairment of vibratory sensation. The plasma proteins were normal; there was no edema.

SUMMARY

A patient is described who developed definite symptoms following a voluntary restriction of diet. Her symptoms strongly resembled a case

of pernicious anemia because of the marked pitting edema of the lower extremities disappeared on vitamin B therapy. The plasma proteins rose to a normal figure regardless of the fact that there was no increase in the protein of the diet. It seemed possible that the vitamins might be responsible either for increased absorption or increased utilization of protein already present in the diet. This is believed to be important since it suggested a cause for edema not found in the usual etiologies of cardiac or renal disease, low protein intake, or failure of absorption of protein secondary to gastro-intestinal disease. Detailed studies are at present under way in an effort to determine the exact explanation for the occurrence of this edema as well as of the symptoms described.

CONCLUSIONS

(1) A case has been presented showing early deficiency of the vitamin B complex following voluntary dietary restriction. This case was encountered in the midst of a general medical clinic practice in Philadelphia.

(2) Symptoms and signs occurring in the presence of a deficiency of the vitamin B complex have been described.

(3) Certain resemblances and certain discrepancies between the findings in this case and those considered characteristic of pernicious anemia have been noted.

(4) The presence of edema and its cure on vitamin therapy is emphasized as of interest.

University of Pennsylvania Hospital.

CORRECTION OF POSTURAL DEFECTS IN CHILDREN*

DEFOREST P. WILLARD, M.D., PHILADELPHIA

The Section on Pediatrics is preëminently the place for a discussion on the diagnosis and treatment of the postural defects that occur so frequently in childhood, since, in the large majority of cases, the diagnosis of these conditions must be made by the pediatrician or family physician, and if this diagnosis is not made in the early stages before the permanent structural deformity has occurred, the final results will be most unsatisfactory. The orthopedic specialist should in most cases be held responsible for the type of treatment to be instituted but unless he has the coöperation of the physician who is in regular attendance on the patient, and to whom the family will undoubtedly turn for diagnosis, efforts at correction will be unsuccessful in direct proportion to duration of the deformity. This paper is presented in the hope that it will impress upon you the importance of constant watchfulness for the early objective signs of these conditions.

Postural defects may be defined as the persistent abnormal weight-bearing positions. In the earlier stages these defects are entirely in the muscular or ligamentous systems but as the condition is prolonged the bony structures become involved and permanent deformities are established which cannot be entirely overcome by any method of treatment. It is unfortunate that in the early stages of these postural defects, practically no subjective symptoms are present, and in consequence the attention of the parents is not called to the condition until permanent damage has been done. It is, therefore, of the utmost importance that the attending physician during his routine examinations be on the outlook for the appearance of any objective symptom and coöperate with the orthopedist in seeing that treatment is instituted early. It is also unfortunate that the greater part of the treatment must be carried out by the patient and here again coöperation of the physician whom the family knows well and in whom they have the utmost confidence, will be of the greatest value in impressing the child and its parents with the

necessity for a monotonous routine of exercise for a condition which causes no pain and which may not even be apparent to the eye of a layman.

Postural defects may occur at any time from the assumption of the erect posture to the end of the growth period. They occur most frequently either at the beginning of this period when the muscles are first taking on their activities, or at the adolescent age when the body is again undergoing another marked readjustment.

In taking up the various types of defects we may divide them into two groups—those occurring in the lower extremities and those affecting the spinal column. In the lower extremity the one important defect is pronation of the feet which in its extreme degrees is spoken of as the valgus deformity. This condition is due to the inefficient action of the tibial muscles which hold up the arch and which give resiliency to locomotion. The bony weight-bearing apparatus of the foot is a flexible triangle with the base forward and with its inner side arched upwards. This inner arch is primarily held in its position by the elastic sling of the tibial muscles, and secondarily by the numerous ligaments of the foot. If these muscles are inadequate from any cause, they elongate and allow the bony triangle to tilt towards the inner side. This tilting allows the line of weight-bearing also to shift towards the inner side, and, thereby, throws more strain on the already overworked muscles. As the muscles further give way, the ligaments will also stretch, the normal arch will be lost, and permanent flatfoot, with its structural changes of the tarsal bones, may result. Flatfoot is not a postural deformity and can be classed only as an end result of postural foot defects.

We can, therefore, say that the muscle inefficiency of the tibial group is the real cause of pronated feet. The inefficiency can be due to many causes. The most common is the inability of these muscles to keep pace with the rapid increase of the weight of growing children. Secondly, any systemic condition or disease that causes poor muscle tone or any defects of the

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

lower extremities such as shortened tendo achillis or bony deformities, such as knock knees, may overwork these muscles and pronation will occur.

The symptoms in children are rarely subjective. Pain in the feet occurs in very few cases, although occasionally the children will say that their legs feel tired or that they have occasional cramps in the leg muscles. Objectively, there are no diagnostic signs when the child is sitting or lying, but when the *child stands* with the feet parallel, it will be seen that the inner malleolus and scaphoid are unusually prominent and that the weight-bearing line of the foot is medial to the second toe; and that from the back the weight-bearing portion of the heel is distinctly external to the midline of the leg. There is occasional tenderness at the scaphoid prominence, along the plantar fascia and under the internal malleolus, but these signs are rare. There are no signs of inflammation or of limitation of joint motion. The one *real* sign is the incorrect alignment of the foot, with the shifting of the normal weight-bearing line toward the inner side of the foot. As a complication of this foot defect, it is not unusual to find associated with it more or less knock knee deformity. This is due to the constant strain on the inner ligaments of the knee which is caused by incorrect foot position, and this defect differs from the genu valgum of rickets in that the rachitic deformity occurs in the bones and is, therefore, permanent; the postural defect is purely a ligamentous stretching and is, therefore, corrected easily by the cessation of incorrect weight-bearing.

In the early stages, the treatment is simple and efficient. A shoe that fits snugly in the heel and gives plenty of room at the ball and toe is essential. In the milder cases, increasing the height of the inner border of the heel by inserting a wedge of leather one-eighth to one-fourth inch in thickness, is often sufficient to correct the weight-bearing line. In the more severe cases the further addition of a well shaped and well fitted resilient pad under the arch will also be necessary. The ordinary commercial arch supports are of little value. They do not fit the individual foot and are usually so rigid that the muscular action of the foot muscles is interfered with and a greater weakening of the muscles is brought about. These mechanical corrections should hold the foot in the normal weight-bearing position and prevent further stretching of the overstrained muscles. The second and very important part of the treatment consists in stimulating the controlling muscles, especially, the anterior tibial. This can be aided by massage and baking but in the main can be accomplished

only by exercise. In children, the simplest types of walking exercises with muscles held tense, have proved the most efficient. It is often impossible to make young children realize the importance of muscle training, and this side of the treatment should be incorporated as far as possible into their normal activities. Braces are practically never necessary, but may occasionally be used at the beginning of the treatment of an unusually severe case.

The second group of postural defects are those of the spinal column and its supports. These again may be divided into two groups—the exaggeration of the normal anteroposterior curves and lateral curvatures or scoliosis. In both groups the basic etiologic factor is muscle deficiency. In the recognition of the defects of the first group, the anteroposterior defects, we should have a clear picture in our mind of the normal anatomic structure of the bony spine and its muscular attachments.

To give the maximum bodily efficiency the back must be flexible, and for this reason the spinal column must be curved in at least one plane. These curves occur normally in the anteroposterior plane without any lateral deviation. The curves are forward in the cervical, backward in the dorsal, forward in the lumbar, and backward in the sacral region. To insure the minimal amount of muscle strain in holding this curved column, these curves in the normal child should show a variation from the straight line of only about one-half inch anteriorly in the lumbar and about two and one-half inches posteriorly in the dorsal region. This position brings the line of balance of the body at the front of the astragalus and through the anterior knee joint. At the hip it passes just posterior to the hip joint and just anterior to the sacroiliac axis. It crosses the bodies of the vertebra at the dorsolumbar junction and again at the cervicodorsal junction to the mastoid process.

By far the greatest number of postural defects consist in persistent exaggeration of one or more of the normal anteroposterior spinal curves. These defects may begin in early childhood but are most common in from the eighth to the twelfth years of life. In the early stages they give practically no subjective symptoms, although the child may complain of a generalized "tired feeling." The diagnosis in such a case can be made only by a careful examination with the child in the standing position with the whole body exposed. By far the most usual type is the increase in the forward lumbar curve (sway back) or in the backward thoracic curve (round shoulders). Either of these curves may predominate but they are usually found together.

There is generally no tenderness; the spine is flexible and the deformity can be corrected by muscle tension or by placing the patient in the prone position. In the later stages, to these objective signs of malposition there may be added many subjective symptoms caused by dysfunction of other organs. These are secondary to the postural defects. It should be remembered that the thoracic cage and the abdominal cavity change their shape with every spinal motion and that any prolonged spinal abnormality must cause in these areas secondary changes that may markedly affect the organs contained in them. In childhood the most pronounced effects are on gastro-intestinal tract, and these in turn may cause further decrease in the deficiency of the muscles controlling the spine.

In the treatment of these conditions it is necessary to consider not only the posture of the back but all associated conditions that go with it. Bad posture is not a purely spinal defect. It involves the whole motor mechanism of the body. The circulatory and respiratory systems, the gastro-intestinal and genito-urinary tracts are all affected, and in the planning of the individual treatment each portion should receive due consideration.

It is obvious that all general measures that promote good muscle tone, normal circulation, and good digestion are of value. Tonics, outdoor exercise, heliotherapy, and good hygiene are general aids in treatment; but specifically the problem is to build up the muscular supports of the body so that good posture may be obtained and maintained. In all cases the basic cause of muscle weakness should be sought for and corrected. Bad habits of posture from whatever cause should be eliminated. In the more severe cases it is often necessary to put the child to bed and to give the overtired muscles a chance to rest and relax before the building-up process is started. As the muscles assume more normal tone, stimulation by heat and massage adds to the rapidity of recovery. At the same time voluntary muscle training in the prone position to teach correct habits of posture can be started.

In the milder cases, or after the bed treatment, corrective braces or corsets, to hold the body while in the erect position and to relieve the still weakened muscles from overstrain, can be successfully used. These braces may vary greatly but basically are planned to give a firm back support from pelvis to lower ribs with a belt around the lower abdomen to correct the lumbar curves and improve body balance. In some cases an upper extension of the brace to

hold the thorax and shoulder girdle in position may be necessary. These braces in themselves often overcome the major symptoms, but they do not overcome the underlying muscular faults and, therefore, must be considered only as an episode and not as the whole treatment.

By far the most important treatment is voluntary muscle exercise which must be continued until correct posture becomes habitual. Exercises should not only build up the necessary muscle structures but should rid the patient of bad postural habits and teach correct posture. These exercises should be done at first under the direction of an especially trained gymnastic teacher who can guide the patient both as to the type and the amount of exercise needed. When the routine of exercise has become fully established, then the patient may carry out the program in the home, returning occasionally for supervision by physician and physical therapist. The amount and type of exercise vary so considerably with each patient that it is impossible in a short paper to cover the details of this part of the treatment. It can only be said that these muscular exercises aim to strengthen mainly the muscles of the respiration, the anterior abdominal muscles, and the extensors of the back and thighs. Good results can be obtained only by the full coöperation of the patient. He should be made to realize that only by prolonged exertion on his part can cure be obtained.

The second group of spinal defects are those classed under the name of scoliosis or lateral curvature. This may be defined as the persistent deviation of the spine to one side or the other. These defects occur at any age after weight-bearing is established and most commonly begin between the tenth and fifteenth years of life. Two main types are seen: (1) postural; (2) structural. The first type, postural, appears as a single curve to one side or the other of the whole spine, without rotation of the vertebra. This curve can be forcibly corrected and there is no deformity of the thorax. In addition to the curve, the most noticeable objective signs are inequality of the shoulders, the shoulder on the convex side being high, prominence of the hip on the concave side and increased space between the body and the pendant arm on the concave side. There are usually no objective symptoms, and for this reason this type of curve may remain undiagnosed and untreated until the deformity becomes very severe. The causal factors are usually poor muscular tone plus unilateral skeletal defects, such as short leg or dislocated hip, irregularity of vertebral growth, empyema, disease of the bone such as rickets,

or disease of the muscles, such as infantile paralysis. Many cases have no obvious underlying physical defect, and are caused by prolonged bad habits of posture assumed either at home or at school.

The second type, structural, usually appears as a double, or even triple, curve of the spine. It is the secondary stage of postural curvature in which the deviation becomes fixed and cannot be entirely corrected by manipulation. The vertebral bodies are deformed, becoming wedge-shaped in the anteroposterior view. The vertebrae also rotate, and this deformity causes a backward displacement of the ribs on the convex side with marked prominence of the scapula overlying the ribs. The causes of structural scoliosis are practically the same as those of the postural type.

The treatment of the first group consists in removal, whenever possible, of the etiologic factor, in the application of some form of brace or stiff corset to hold the body in correct position, and in long continued gymnastics to strengthen the muscle supports of the spine, especially on the convex side of the curve. The exercises are preferably given under the supervision of a trained physical therapist and continued until the

muscles adequately hold the spine in the correct position.

The same treatment holds good for the milder structural cases but, in addition, the stiff, unyielding curvatures should be forced back towards the normal by the pressure of properly applied plaster casts or by lateral traction in the recumbent position. The more severe types of structural curvatures with marked rib deformity offer little hope of cure. Increase in the deformity can be prevented by proper bracings or by operative fusion of the spine. Cosmetically, the deformity of the thorax can be improved in certain cases by section of the deformed ribs. Unfortunately structural scoliosis can practically never be entirely corrected, although the postural type offers a good prognosis if treatment is thoroughly carried out.

The care of these patients is a responsibility that the orthopedic surgeon should assume, but the diagnosis, in the vast majority of cases, should be made by the attending physician, and the responsibility of recognizing these cases in the early or postural stages, when treatment offers a good chance of functional cure, depends absolutely upon him.

1916 Spruce Street.

REPORT OF THE INTERNATIONAL CONGRESS OF OPHTHALMOLOGY MADRID, SPAIN*

HENRY W. GEORGE, M.D., MIDDLETOWN, PA.

It has been my privilege to attend three International Congresses before attending the one in Madrid, Spain, in April of this year. But never before have I experienced such a handicap by being unable to understand the language most used, Spanish.

There were 915 ophthalmologists in attendance at this Congress and about 200 wives and daughters; also the president of the Spanish Republic and members of his cabinet; the mayor of Madrid, and state and city officials. There were 32 present from the U. S. A. President Jan Van Der Hoeve occupied the chair.

The place of meetings, with the exception of the grand opening, was the Palace Hotel. In it were held all scientific meetings, demonstrations and exhibits, receptions, *etc.*, also the meetings of the International Association for the Prevention of Blindness and of the International League of the Fight against Trachoma. The rotunda, corridors, reading and social rooms af-

forded retreats in which many interesting chats were held and acquaintances were made.

In 1932 invitations were sent to ethical ophthalmologists throughout the civilized world to attend and take part in the activities of the Madrid Congress. A rather unique diversion was a request with each invitation asking members to send photographs in order to compile a souvenir album of the members.

On Sunday morning, April 16, the solemn opening took place in the grand amphitheater of the University of Madrid, Calle de San Bernardo, at 10 a. m.

The president of the Spanish Republic, Don Niceto Alcala Zamora, and members of his cabinet came in under military and presidential escort, also the director of hygiene, rector of the University, and the dean of the faculty of medicine of the University.

Prof. Jan Van Der Hoeve, president of the International Congress, Leiden, Holland, opened the meeting, delivering his address in five different languages: Spanish, French, Italian, German, and English.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

He recalled to memory the colleagues deceased since the last meeting of the Congress: First the deceased president of the International Council, Prof. K. K. K. Lundsgaard, then Drs. Axenfeld, Roselli, Fuchs, and Treacher Collins.

Prof. Rodriguez Marquez, honorary president of the Spanish National Ophthalmological Society, Madrid, followed with an address of welcome to the Congress.

Following the address, he read a communication from Ramon Cajal who on account of his age and infirmities was unable to be present. It was Cajal whose valuable contribution to our knowledge of the retina was first published in 1892 and upon whom the government conferred a badge of the Order of the Republic for his work.

The president of the Republic then addressed the Congress bidding us welcome to Spain and Madrid in particular.

These addresses were followed by responses from various ophthalmological societies among whom was our Prof. Walter R. Parker, Detroit, Mich., who, in English, spoke in behalf of the American Ophthalmological Society.

After luncheon the session on Demonstrations was presided over by Aryeh Feigenbaum, Jerusalem, Palestine; Prof. Jan Lauber, Warsaw, Poland; and Director Jacques Mawas, of the Rothchild Foundation, Paris. Drs. Andina and Arjono acted as secretaries.

A. Dr. W. Comberg, Berlin, demonstrated a new slit lamp that is made by the Zeiss firm, Jena, and set forth its advantages. I was so impressed by it that I now use one in my office.

B. Dr. J. Lopez Lacarrere, Madrid, demonstrated the application of the "electrodiafaco" in detachment of the retina, also the extraction of cataract lens by means of electrocoagulation.

C. G. Iribas, Madrid, demonstrated the reductent bicylindrometer, an apparatus easily handled, by means of which can be obtained very rapidly and without need of calculations the di-optical value, the inclination of the axis, and sphere resulting from the combination of two cylinders, according to a given formula.

D. R. Castroviejo of New York gave an illustration of his work on queratoplasty. Experimental studies upon rabbits with leukomatose corneas had been made.

E. Gonioscopy, its methods and results especially in glaucoma, was discussed by Manuel Uribe Troncoso, New York City.

F. Lijo Pavia, Buenos Aires, projected photographs of the retina in colors, also motion pictures, to illustrate the pulsation in vessels and movements in detachment of the retina. He brought out some interesting studies.

On Monday, April 17, one of the features of the day was the meeting of the International Association for the Prevention of Blindness. Dr. E. Park Lewis, Buffalo, presiding, appointed all the members from the U. S. A. attending the congress as delegates to the International Association for the Prevention of Blindness.

M. Marques, Madrid, stressed the need for a standard classification of causes of blindness and remarked that we must say that we are dealing with practical blindness and not with absolute (stock blindness).

The first official subject was "Tuberculosis of the Iris and Ciliary body."

Dr. Henri Lagrange, Paris, dealt in detail upon the following facts:

1. Ocular tuberculosis is a secondary lesion supposedly caused by superinfection. Tuberculosis of the uveal tract arises from a deeper site not at first recognized, showing the manner in which tuberculous infection reaches the uveal tract by a bacillemic or a septicemic process, and why the uveal tract constitutes a most favorable site for the formation of tubercles.

2. Diagnosis requires initial proof of the presence of primary infection: a. Pulmonary signs. b. Cardiovascular signs (he stressed three signs, namely, tachycardia, microcardia, and hypotension).

3. The method of choice: a. Tuberculinic diagnosis, test treatment. b. Micro-leukocytic culture, as employed by Löwenstein. c. Search for the ultravirus of tuberculosis by the intraglandular inoculation of guinea pigs.

4. The morphologic diagnosis of irido-ciliary tuberculosis.

In conclusion he stated that uncertainties still remain and must persist until there is fuller information concerning the reciprocal influences of diathesis, hereditary dystrophies, congenital infections, diseases, and acquired infections.

Dr. J. Igersheimer, Frankfurt, Germany, in his paper on "Pathological Anatomy," stated that the experimental pathology and anatomic study of the various organs show that the reaction of the tissue against the invasion of the tubercle bacilli can initially and eventually as well as for a long time be histologically nonspecific. This can also be true concerning tuberculosis of the iris and ciliary body. The conditions which definitely belong to the tuberculosis group are not always easy to decide. He reviewed the literature and reported the individual observations using as a fundamental basis the following classification:

First group: I. Cases with acute and subacute course. a. Small node type. b. Large node type.

11. Cases with chronic course. a. Transition type. b. Tuberculous focus in the eyeball outside the anterior uvea. c. Tuberculous-suspected structures in the uvea. d. Clinically tuberculous, histologically nonspecific. e. Chronic uveitis (clinically and anatomically no definite evidences for tuberculosis).

Second group: a. Preponderance of necrosis. b. Preponderance of suppuration. c. Atypic tuberculosis with unusual increase of connective tissue.

The different types of tuberculosis of the iris and ciliary body as well as their histologic details were discussed and many illustrations shown on the screen.

Dr. E. V. L. Brown, Chicago, in his paper on the "Modern Treatment of Iridocyclitis Tuberculosa," dealt extensively with the numerous treatments now in use; in concluding his remarks he stated that the modern treatment of tuberculous iridocyclitis is not on a satisfactory sound basis, either in theory or practice. The most effective local treatments (roentgen ray, introduction of the patient's own blood into his anterior chamber) do not prevent recurrences nor attacks in the other eye, and do not influence the primary intrathoracic seat of the tuberculosis. Tuberculin treatment has not been shown to prevent recurrences, nor attacks in the other eye, and neither eye doctors nor tuberculosis specialists have proved that tuberculin in any way favorably influences the intrathoracic tuberculosis.

The second official subject was "Detachment of the Retina."

A very complete study on the etiology and pathogenesis of detachment of the retina was presented by Dr. H. Arruga, Barcelona.

He analyzed the etiologic conditions; the age, while noting that the vast majority of cases of congenital detachment are the result of trauma during labor or even of intra-uterine affections of the uvea.

Further, the frequency of detachment increases progressively with age.

The male sex preponderates over the female, two-thirds of the cases occurring in males. Detachment is rarely hereditary as it seems; the predisposing conditions (myopia, dyscrasia and tuberculosis) are hereditary.

Bilateral frequency.—In 45,000 cases he had 682 of detachment of which 121 were bilateral.

Myopia.—About 50 to 60 per cent of patients with detachment are myopes.

Rôle of trauma he divided into three groups:

Recent cases: Recent cases are those occurring in severe injuries, not frequent. During the World War it was proved that the choroid

was more easily ruptured than the retina. Even if the retina was slightly torn it did not easily become detached. Commotio retinae (Berlin's opacity) is probably a slight detachment.

Secondary cases: These are cases of contusions of the eye or frequently of the head which after a few weeks or months are followed by detachment.

Late detachments: These are consecutive to contractile lesions (loss of vitreous, hemorrhage).

Pathologic conditions that favor retinal detachment are: (1) The lesions of myopia that are degenerative rather than inflammatory. (2) Changes in the vitreous in myopia. (3) Senile ocular changes—senile cystic degeneration in the region of the ora serrata. (4) Lesions resulting from sclerosis as in nephritis. (5) Choroidal exudations. (6) Chorioretinitis at the equator and in the periphery. (7) Ocular diseases—iridocyclitis, scleritis, sympathetic ophthalmitis, and retinal angiomas. (8) Tumor and Cysticercus. (9) Orbital affections and subconjunctival injections.

The general pathologic conditions which favor retinal detachment were described whether: Senility, pregnancy, syphilis, tuberculosis, malaria, rheumatism, diseases of metabolism, hepatic and renal insufficiency, and mental and psychical conditions.

The subject of tuberculosis was treated in greater amplitude because of its great influence in the production of detachment.

The speaker considered the various interesting clinical conditions connected with the pathogenesis of detachment. In the first place tears in the retina, their frequency, topography, characters, according to their situation and their development. Next the speaker dealt with cases of detachment without tears and those of tears without detachment, showing interesting drawings.

This was followed by the anatomico-pathologic development of detachment in which was treated particularly the descent of detachments in the upper part of the globe. Instances of spontaneous cure were touched upon and the influence of the intra-ocular pressure in detachment, the latter being nearly always diminished eventually under the influence of tears and the function of the ciliary body.

Under pathogenesis he made a résumé of various theories which he classed in three groups:

a. Distention of the globe (which cannot be defended).

b. Choroidal exudation (incontestable in the case of detachment in nephritic retinitis, exudative choroiditis and affections of the orbit).

c. Vitreous shrinking is logical in cases of large loss of vitreous if the framework of the vitreous remains in tension between the retina and the wound and in cases of vitreous hemorrhages which on absorbing form cicatricial contracting bands. Outside these cases it does not appear that the retraction could act in favoring the detachment. If it were so we should see many detachments in the aged who have been operated on for cataract in whom loss of vitreous has occurred.

What facilitates the tears half opening and allowing the vitreous to pass would be the elasticity of the retina when it is sclerosed as the edges of the tear turned toward the interior of the eye seem to show.

The shape of the tear depends especially upon the adhesion between the vitreous, retina, and choroid. In the horseshoe form it is possible that it is determined by the direction of the layer of the optic nerve fibers.

The situation of the tears depends on the weak spots and on the thickness of the retina. It is thinnest at the macula and between the equator and the ora serrata. The greater density of the subretinal fluid explains the migration of the upper detachments towards the bottom of the eye and justifies the position of patients on the operated side.

The speaker illustrated his discussion with many slides.

Prof. Giuseppe Ovio, Rome, discussed the medical care and treatment for detachment of the retina. The principal ones are: Dark-cure, diaphoresis, instillation of eserine or atropine, electrolysis, massage, preparations of iodine,

other means (mercurial, adrenaline, tuberculin, diet free from salt), subconjunctival injections, injections in the vitreous.

From statistics compiled an average of about 22 per cent of improvements and cures have been noted.

As our guest speaker will tell us about operations for detachment, I will simply mention that Dr. Alfred Vogt, of Zurich, discussed the operative treatment.

Time will not permit mention of all the interesting papers read nor the interesting specimens shown in the exhibits by the members of the Congress. The opportunity to see at one time and place what was offered by men from many countries, many of them leaders in their branch of ophthalmology, was a feast long to be remembered.

At the business meeting, invitations were extended to hold the next meeting in Vienna, Budapest, and Cairo, Egypt. Three places in the large auditorium were designated for members to gather indicating which invitation they wished to accept. Cairo won by a large majority so the next International Congress of Ophthalmology will meet in Cairo, Egypt, in 1937.

The members from Cairo were very enthusiastic and promised to work for special rates over the Mediterranean for all who wished to come to Cairo and will make it an interesting and worth-while Congress. To those who have visited Egypt I need not tell how interesting it is. To those who have never visited Palestine and Egypt I will heartily recommend the trip as one of the best tonics to restore vim and vigor.

19 North Union Street.

ETIOLOGY AND TREATMENT OF PEMPHIGUS*†

L. G. BEINHAEUER, M.D., PITTSBURGH

Pemphigus is a term applied to a group of relapsing bullous affections sometimes associated with constitutional symptoms of which we recognize the acute, chronic, foliaceous and vegetans types.

ETIOLOGY

The cause of pemphigus is still obscure, yet clinical and pathologic reports force us to recognize the possibility of certain etiologic factors. Briefly we will discuss these factors in the order of their prominence as we have gathered from the review of the literature.

BACTERIAL

The occurrence of acute pemphigus following vaccination and its occurrence in those handling animal products suggests strongly bacterial infection as a causative factor, and the mere course of the chronic forms of pemphigus makes one feel seriously that infection may play an etiologic rôle. Not infrequently have organisms been recovered from all types of pemphigus, but the definite relationship of any organism has never been proved or universally accepted. For instance, it has been advanced that acute pemphigus, following infection in those handling animal products or after vaccination, occupies a doubtful position in the classification of true pemphigus and its cause must still be regarded

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† From the Department of Dermatology of the University of Pittsburgh.

as unknown. Some observers enhance the bacterial cause by stating lesions in pemphigus are auto-inoculable. The most important bacterial findings may be grouped:

- a. *Diplococcus* (Pernet, Bullock, Demme).
- b. Short motile bacillus (Hendry).
- c. *Coccus* (Whiphouse).
- d. *Micrococcus lanceolatus* (Hamburger).
- e. *Bacillus pyocyaneus* (Hazen, Low, Petges).
- f. *Coccoid bacillus* (Eberson).
- g. *Staphylococcus*, *streptococcus*, *colon bacillus*.
- h. *Pseudodiphtheria bacillus* (Hamburger and Rubell).

NEUROTROPHIC

This theory has been supported by many reliable observers who have noted the frequent association of pemphigus and symptoms referable to the central nervous system. Time is too limited for discussion but we can briefly mention that pathologic changes have been described in the brain, spinal cord and fluid, meninges, peripheral nerves, sympathetic system, and the various nerve ganglia. A neurotrophic virus has even been suggested as the causative factor.

AUTO-INTOXICATION

This possibility is rapidly gaining ground as a causative factor and it is regarded as quite probable that future investigations will demonstrate that the cutaneous lesions of pemphigus are the result of a toxic agency operating with morbid results upon the skin. The association of general debility, visceral disorders and gastrointestinal pathology with the resultant toxemia causing impairment of the nutrition of the patient has been offered as an explanation. In the light of more recent investigation, vitamin deficiency has been given no slight consideration.

TREATMENT

It is difficult at the onset of pemphigus to state whether it is going to develop into a mild or grave type and a very guarded prognosis should be given at the onset of treatment. Like its etiology, no specific treatment has been found but numerous therapeutic measures are at our command by which we are able, at times, to control and combat the course of this disease. None of these measures can be relied upon even though it may at times give excellent results. Skill in the hands of the operator in the choice of these methods is absolutely necessary to achieve the desired results. In the treatment of this disease, attention should be directed to the general health of the patient. The milder forms

may be treated as ambulatory, but the more severe types are confined to bed.

Of the internal remedies which are supposed to exert a curative action, arsenic stands first. Hutchison¹ stated: "Arsenic is a specific for the state of health upon which relapsing pemphigus depends." It is a drug that should be used with caution and one must remember its toxic reactions and its tendency, at times, to give slow therapeutic responses. It may be given by mouth as Fowler's solution, sodium arsenate, Donovan's solution, or Asiatic pills. Intravenously and intramuscularly the more popular preparations may be listed as: Arsphenamines, tryparsamide, germanin, spirocid, stovarsol, sodium and iron cacodylate, and sodium arsenate. It is claimed the oral method of administration is the least effective but may be the method of choice in face of infection or if there is difficulty in giving the intravenous route. Davis called to our attention a mode of therapy which has given satisfactory results in the hands of many clinicians. It consisted of intravenous injections of 0.065 gram, iron cacodylate and 1.5 c. c. of coagulin given intramuscularly on alternate days, the course of injections being 2 to 4 weeks or until therapeutic improvement ensues. Wende commented favorably on this method reporting 62.5 per cent clinical cures. Later Davis added to his original series advocating the use of sodium arsenate (orally) if the intravenous method was contraindicated. He further favored phenobarbital over the bromides as a sedative because of the bullous tendency of the latter drug. In cases of relapses the treatment was continued or repeated. Grindon, because of failure with the Davis method, advocated two courses of tryparsamide once weekly with coagulin on alternate days and stated this was more effective than sodium arsenate by mouth or iron cacodylate intravenously. Germanin and spirocid given to tolerance have been reported favorably but toxic reactions were more frequent. Intravenous injections of quinine, urotropin, aniline dyes, and mercurochrome, have been offered with recommendation, and strychnine, ergot, salicin, and a host of other drugs have been mentioned for oral administration. Arsenic by mouth together with long continued colonic irrigations thrice weekly and restriction of protein in diet was reported as curative. Endocrine therapy (progynon and testicular hormones, pituitrin and adrenocortin) has been given attention by some clinicians. Recently Ludy and others reported excellent results by the use of viosterol. Promptness in the use of this drug when diagnosis is established is essential and adequate dosage was given and increased until

the cessation of bullæ occurs, the dosage varying from 4 c. c. to 15 c. c. three times daily. Recurrence of lesions is indication for continuation or slightly increasing the dosage. The guide is the cessation of the eruption and while persistence of the last named dosage for ten days usually controls the lesions, no hesitancy should be used to exceed this dosage until the desired effect is obtained. No contraindication was given to continuance of small doses for a time after convalescence was established. Roentgen ray, ultraviolet, and radium therapy are ineffective and seldom used.

Protein therapy has received considerable attention in the treatment of pemphigus. Nonspecific shocks by typhoid vaccine, milk injections, and malaria have been tried. Autogenous, stock and cowpox vaccine have offered little curative results. Horse serum and autohemotherapy have had little effect. Hollander has offered whole blood transfusions as a therapeutic measure. He advocated weekly transfusions of 500 to 600 c. c. whole, matched, noncitratated blood, repeated 3 to 6 times, depending upon the clinical improvement. Recently high daily colonic irrigations of mild ichthyol solution have been added and appeared to improve the efficiency of the treatment. It is the belief of this author that previous arsenic medication retarded the efficiency of transfusion and if this drug has been administered, sodium thiosulphate therapy was advised prior to the transfusions. Attention should be called to untoward symptoms from transfusions which may arise: Chills, fever, tingling of toes and fingers, numbness of extremities, palpitation, cyanosis, or air hunger. Any one of these symptoms contraindicated further transfusions.

Recently Artom published consistently good results with transfusions advocating care in matching and grouping blood types to prevent the reactions mentioned by Hollander. He advocated cross matching all bloods. He did not believe in using citrated blood because of the frequency of untoward effects in patients suffering from pemphigus, especially on account of their lower resistance. In a disease so irregular as pemphigus it is impossible to state that the remissions following blood transfusions are due to the transfusions or whether they occur independently and constitute a part of the normal course of a treated patient. Its logical indication seems to be a well advised measure which adds to the rise in hemoglobulin and general improvement in the nutrition of the patient which has been the experience of the essayist in a limited number of patients.

Trichophyton and monilia injections have been given with successful results by Wise and Sulzberger subcutaneously in a few cases of pemphigus with lesions on the hands and feet indistinguishable from tinea. Whether these cases cleared partly as the result of this therapy or whether the polypharmacy helped or whether these cases would have cleared with no therapy outside of arsenic, was not determined.

Of the local treatment, the cleansing of the skin from the waste products of its disease commands first attention. The contents of the lesions should be drained and soothing antiseptic local applications whether in form of dusting powder, lotion, or ointment are advised. Continuous warm or colloidal baths give marked relief in the severer cases. Spraying with 5 per cent tannic acid solution has been favorably reported. For pressure and soreness, water or air beds may be used. Pyrexia and other complications are treated accordingly as they may arise. The mucous membranes may require attention.

In conclusion, we still must regard the cause of pemphigus as unknown. Skill in selection and administration of the methods of treatment at hand is necessary to combat this disease where the prognosis must be guarded and the patient must be relieved. Briefly these may be enumerated: (1) High doses of arsenic; (2) protein therapy (blood transfusions or trichophyton and monilia injections); (3) large quantities of vitamin D; (4) salt poor, low protein, and vitamin high diet; (5) high colonic irrigations and finally topical applications.

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ABSTRACT OF DISCUSSION

SIGMUND S. GREENBAUM (Philadelphia): In the past 12 years we have seen at the Graduate School some 70 cases of chronic pemphigus. Of these patients, 5 are alive, 3 perfectly well, 2 still under our care. We have studied at the Research Institute the question of etiology from the standpoint of bacterial invasion. At no time have we been able to find bacteria described by others, nor have we, in spite of exceedingly close search, discovered any organisms for which we should ascribe an etiologic factor. I believe, however, that pemphigus is really an infection. The number of new agents that are advised each year in the treatment of this disease shows that apparently none is successful in the hands of every one. In 1925, we had a patient with chronic pemphigus who was apparently in extremis. About this time Young brought out mercurochrome and we used it, 5 mg. per kilogram of body weight, in the external jugular vein. Because of the widespread eruption, the arm veins could not be used. In 4 days the condition had practically cleared up. After the second dose the patient was completely well but for the pigmented remains of the eruption. Six to 8 weeks

later he suffered a relapse and died of pulmonary tuberculosis. Dr. Schamberg repeated this treatment in a private patient whose condition promptly cleared up following injections of small doses, 5 c.c. daily of a one per cent solution. In the next 10 patients it failed utterly. This has been the result with all remedies used in the treatment of this disease. The patient Dr. Schamberg reported last year, whom he cleared up with colonic irrigations, was under my care 3 or 4 months before. It was remarkable the way the condition of this patient, whom we had practically given up, recovered under daily large colonic irrigations only subsequently to relapse and die.

There are two chief points to be kept in mind in the treatment of chronic pemphigus vulgaris. One is very early diagnosis wherever possible. If in doubt, treat as pemphigus. Second, keep the patient's nutrition at as high a point as possible, both with the simple foods and vitamins, and use every one of the remedies recommended. Tryparsamide, acetarsone, or transfusions or colonic irrigations have given as good results as anything, and should be used if necessary in a given case. A real specific has not been found. Such a specific must lie between that which goes into the formation of the arsenical compounds and the mercurials.

HAROLD W. JONES (Philadelphia): I should like to say a word in favor of transfusions. Two patients in whom we used transfusion died. Dr. Beinhauer said that he favored the use of sodium thiosulphate intravenously rather than the use of arsenic. Any intravenous medication that is given in transfusions will influence the blood types. Reactions are very much more frequent if intravenous material is given between transfusions. This is one thing we warn against and do not use at the Jefferson Hospital.

A small dose of blood given every 3 to 5 days, 100 to 300 c.c., will decrease the reaction from 10 per cent to about 2 per cent. Transfusion gets many a hard knock today. One reason it gives reactions is because it is not used properly.

MARION B. SULZBERGER (New York City): I am interested in this paper and its faithful compilation of everything in the literature concerning diagnosis, prognosis, and the treatment of pemphigus as well as in the remarks of the discussors. Dr. Beinhauer has been complete concerning the clinical aspect of the disease and the prognosis, but I should like to say a word con-

cerning the theory. J. Jadassohn and most observers I have consulted adhere to the infectious theory in the origin of the disease, just as Dr. Greenbaum stated this to be his opinion. I have always inclined towards that hypothesis. Also, we all know of the negative results in the very numerous, very careful, and very prolonged attempts to demonstrate bacteria or organisms of any kind. Every one has come to negative results, just as Dr. Greenbaum has, with the exception of Lipschütz who claimed to have found nuclear inclusion bodies. With that exception all attempts to find organisms of pemphigus have led to negative results.

In combining this idea with the probable infectious nature of the disease and absence of organisms, and adding to that the bullous and vesicular nature of the disease, I was forced to conclude, through my experience with moniliids and epidermophytids, that there might be some morphologic relationship, for there are some cases in which there were typical epidermophytids present. If one considers the relation of the gastro-intestinal tract and that the stool frequently harbors the monilia organism—one is led to envisage this disease as a possible reaction caused by a sensitization of the skin and perhaps of other viscera. It might be disseminated organisms which are so rapidly destroyed that they can no longer be demonstrated, and disappear before the lesion appears. For that reason we have added as our contribution to the best standard therapy known the injection of trichophytin and oidiomycin. Our experience is limited and it is approximately 4½ years since we first treated our cases. Unlike Dr. Schamberg's case, the 4 out of 5 consecutively treated cases by that method are in persons who are still alive and well. One was a pemphigus vegetans in which one might expect remissions, but the others were pemphigus of the severest form and the patients were moribund when we began our therapy.

DR. BEINHAUER (in closing): When the question of sodium thiosulphate was brought out in the paper, it was mentioned that a few patients suffering from pemphigus who had been treated with transfusions with no results, upon close investigation these gave a history of recent arsenic medication, and when these patients were treated with sodium thiosulphate prior to another transfusion, better results were obtained. I have in mind one case in which this technic was followed and a very successful result was obtained. That particular patient was treated 3 or 4 years ago and is still living without any recurrence.

"CHRONIC" IRITIS—THE RÔLE OF FOCAL INFECTION*†

NELSON S. WEINBERGER, M.D., SAYRE

In attempting to speak on the subject of focal infection, I am well aware of the diverse opinions, the skepticism, the overenthusiasm, and the abuse of a field of pathologic changes which are still largely in the realm of scientific study and advancement. It is with an open mind and with

a sense of appreciation of the need for further research that we should attempt to clear up the imperfections and misunderstandings attending our present conceptions of the manner in which so-called focal infection affects remote tissues. It is assumed that proof of the existence of the deleterious effects of foci of infection is not necessary. There is ample evidence in the literature from case records to establish clinical facts showing focal infection to be a foe to be re-

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

† From the Guthrie Clinic of the Robert Packer Hospital, Sayre, Pa.

spected. Our experiences add to the mass of evidence, although we are sometimes confounded by the lack of uniformity of results.

It is understood that the use of the word "iritis" implies the practical impossibility of the involvement of only a single portion of the uvea and that "uveitis" would be a more appropriate term. What is chronic iritis? It is practically impossible to give a satisfactory definition of chronic iritis and it is a question whether any attempt to distinguish acute and chronic iritis should be made if the time element is used as a criterion. In speaking of iritis, the use of the words acute and chronic is apt to be misleading if one attempts to elucidate the etiologic factors involved. This assumes both to be misnomers as regards inflammation of the iris and that the appellations really carry no information worth while. Iritis should be classified according to etiology and as mild or severe, recurrent or non-recurrent. All iritides of endogenous origin tend to persistence or recurrence. Recurrences are simply visible reexpressions of the existence of an unrelieved causative factor or factors after periods of quiescence. Exacerbations accompany persistence. Either may be mild or severe.

Those who deny the causative rôle of focal infection simply dodge clinical data because of their reluctance to accept facts that cannot be completely understood. There is a growing belief that allergic influence plays a distinct phasic rôle in the development of uveal inflammation. It is not necessary to explain the pathology of this disease by circulation of systemic toxins with local reaction or by selective infection. Sensitization from long continued infective agents during periods of lowered resistance can and may merge into a vicious cycle. This presupposes a combination of factors or contributing agents of a correlative nature working harmonically in a fertile field. It seems to me that recognition of such a probability and further study along these lines will soon place us on the right road leading to the understanding of the many contradictions and perplexities concerning focal infection as we view it today.

The many brilliant results as well as the failures could be explained on the ground of interference (or lack of it) of sufficient potency to alter materially the cyclic combination set-up. We have been concentrating our efforts upon the actual forces of infection, namely, the germ, and have not been giving enough attention to the background and the foreground in the field of their activity. Just so long as we fail to go beyond the infection itself and to study its systemic effects more completely, so long shall we continue to be bewildered by the seeming incon-

sistencies attending the so-called theory of focal infection. Most observers agree that focal infection has passed beyond the pale of theory. It is a problem—an established condition in which the *modus operandi* awaits a fuller and more conclusive solution. We are too prone, in a given case, to regard a known cause of iritis, such as syphilis, tuberculosis, or diabetes, as the single factor in its development. Its tendency to persistence or recurrence is ascribed to this sole cause to the exclusion of the consideration of the probability that focal infections and allergy play either a major or a minor rôle. The good effects of the removal of focal infections upon the response of syphilis, tuberculosis, and diabetes, in general, to treatment have long been known.

Tubercle bacilleemia in chronic uveitis has been demonstrated by Löwenstein's method, but no bacilli have ever been found in an enucleated eye. It is extremely difficult and rare to find them even in fresh tuberculous iritic nodules. In a small percentage of cases in which tuberculous or gummatous nodules are present, the type of infection is easily understood but the average case of iritis presents a clinical picture that defies classification. It is obvious that it is, as yet, impossible to draw concise scientific conclusions. Doubtless microorganisms can and do actually lodge in the eye, but that such is really the mode of causation of iritis is not supported by clinical or laboratory data. The mass of evidence is constantly pointing to the influence of remote infective foci and of the sensitization of the uveal tissues as the major factor in the production of reaction (inflammation).

The allergic element in a given case, which yields so spectacularly to foreign protein therapy, is certainly a factor in many instances and often explains the wonderful benefits reported from the use of tuberculin in nontuberculous cases. It is the concealed focus with positive toxic absorption, not the frank, freely draining focus, which brings about these pathologic phenomena. We should not complacently and confidently assume that an iritis is syphilitic because of a positive complement fixation test or that it is tuberculous because of a positive tuberculin reaction. The search for and care of all factors should be complete. These points have been so conclusively demonstrated by the work of Brown and of Irons. In the case of diabetes, a metabolic and not a bacterial disease, we can easily assume other than metabolic factors in the basic production of iritis. As early as 1926, Zentmayer made the observation that uveitis from prostatic infection is more often nongonococcal than gonococcal.

Gorand reported two cases of iritis, supposedly traumatic, in which recurrence followed apparent recovery. He ventured no explanation to account for it. Many of us have had similar experiences in cases of injury which, at the time, we regarded as trivial and which later proved to be focal reaction, the injury being a minor factor.

Most persons carry foci of infection with impunity. Immunologic breakdown during a period of lowered resistance fosters remote reaction to focal infection. MacKenty¹ has well said: "The present etiologic classification is unsatisfactory and, oriented by more accurate and unbiased observation, and by the accumulation of more clinical material, will be radically changed in the near future." A specific infection can be the predisposing cause which prepares the soil for a so-called nonspecific inflammation. The toxins acting upon the sensitized uveal tissues without the presence of the actual agents producing these toxins can produce reaction. Further waning of immunity leads to the vicious circle of hypersensitization and low resistance. It is in this state that the results of treatment and so forth are so liable to be disappointing.

In many instances our present methods of investigation fail to reveal any area of focal infection. We have good reason to assume the presence of a focus and our failure to find it should not induce skepticism. Rather than expect easy diagnosis of foci, we should all the more realize the greater probability of hidden foci and their greater causative influence than open ones. We should double and redouble our efforts of search. By this realization and by persistence, our percentage of failures will be materially reduced. These infective agents are mostly streptococci of varied strains. Other bacteria may be associated but it is my opinion that the fundamental causative factor in the iritic reaction is streptococcic toxemia from a remote focus or foci in most instances, although at times it may be difficult to obtain a growth of streptococci in pure culture from the focus and to exclude other associated or symbiotic infective agents. Brown and Irons, and many others, have well established the etiologic relationship of iritis and focal infection. How it is possible to doubt such overwhelming evidence is beyond comprehension, even though the physiologic and metabolic processes involved are rather vaguely understood. We are on the threshold of important discoveries which will lead us into the fields of immunology, allergy, and so forth. The streptococcus is ever with us and it is necessary that, recognizing its presence, we determine why, in a certain individual and at a given time, it becomes an acti-

vating agent of local reaction of tissues. Although ideal, elimination of the focus is not always possible, and some other avenue of attack upon the effects of its activity takes us into the field of desensitization and increased resistance. It is possible that we place too much importance upon focal infection alone and lose sight of the fact that too much may be expected from its removal. Failure to recognize the importance of lowered resistance and allergy is probably the reason for the discouragement attendant upon the general belief that the only need is the discovery and the removal of a focus. The brilliant results from simple removal seen in some cases cannot be expected in all. Failure to grasp this is what brings condemnation upon the whole idea of focal infection by those who fail to appreciate the greater field involved.

Allergic sensitization can become so firmly established in the uvea as to make removal of the primary focus practically useless. Remove the focus, examine the parts removed bacteriologically, especially for streptococci, and make autogenous vaccine of toxin filtrate. Improperly made vaccine is useless. Among nonspecific vaccines, typhoid offers the best promise of help. Desensitization by the use of autogenous vaccine should be slowly and cautiously accomplished, beginning with very small doses, gradually increasing them at about five-day intervals. There can be a specific tissue affinity for the toxins rather than for the bacteria themselves. Spectacularly rapid recovery following removal of an infective focus suggests a preëxisting toxic reaction of the tissues rather than actual bacterial invasion. We must not be dogmatic on an open question, but it is possible that the salutary effects of tuberculin injections may be due entirely to foreign protein and not to specific action of tuberculo-protein. If this be true, then our present conception of tissue reaction to focal infection and its ramifications will undergo a considerable change toward clarity. Brown and Irons² state: "In some cases of recurrent and chronic iritis a pronounced allergic response to bacterial filtrates was noted and recurrence after acute pharyngitis and nasal cold was observed." Recurrence of iritis in the same eye and exacerbations of iritis raise questions which do not seem well answered by limiting the explanation to actual invasion by and lodgment of infective agents. Toxemic reaction seems the more logical and reasonable explanation. Again quoting MacKenty¹: "In my own large volume of carefully worked out case records I have irrefutable evidence of the malign influence of diseases of the sinuses, the tonsils, the teeth, and the ears upon

the body, even in its remotest parts." I do not believe, however, that so-called focal infection alone explains the whole problem as regards the incidence of the reaction of uveal tissues. As stated before, this can account for the lack of uniformity of results from its removal.

Focal infection is not an entity. It is simply the initial agent and possible forerunner of a complicated biologic disturbance. The majority of primary focal infections are located in the tonsils, the teeth, and the sinuses, although there are other locations, either primary or secondary, such as the gallbladder, the prostate, the cervix uteri, the intestines, and so forth. It is probable that the sinuses are more often secondarily involved. It is certain that the tonsils and the teeth are the great harborers and breeders of infective foci.

It is not possible in such a short space of time to go into the details of the clinical diagnosis and treatment of focal infection, the methods employed, and the difficulties to be overcome. Efficient coöperation between the ophthalmologist, the otolaryngologist, the dental surgeon, and the internist is essential. Clinical evidence that focal infection should be recognized as a major basic factor in the production of uveitis is abundant.

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ABSTRACT OF DISCUSSION

WILLIAM ZENTMAYER (Philadelphia): That in most cases we must look further than the focus of infection for the pathogenesis is indicated by the results obtained from the removal of such foci. In many cases they can scarcely be called brilliant.

To understand what the other factors are, we must seek the aid of the bacteriologist and the immunologist. Kolmer believes that all types of endogenous iritis are due "directly or indirectly" to microorganisms or their products; directly by the presence of microorganisms in the iris; indirectly by the activities of bacterial toxins in the iris, or by acquired allergic sensitization of the ocular tissues to bacterial products produced in foci of infection situated elsewhere in the body.

Although in tuberculous iritis the tubercle bacillus has been found in the iris, and in syphilitic iritis the spirochaeta pallida has been demonstrated in the iris, in iritis supposedly caused by foci of infection, the streptococcus, which is the organism generally considered responsible, has not been found in the iris. So the iritis must be explained by what Kolmer terms an indirect action of bacterial toxins in an acquired allergic condition of the tissues involved. Both possibilities are hypothetical.

In the discussion of this problem it should be borne in mind that no matter what our individual opinion is, it is not universally held that focal infections, in the restricted meaning of this term, can produce uveal inflammation. Dr. Weinberger has directed his remarks chiefly to the affirmative side of the question, so it is but fair to state some of the objections that have been raised.

Several of our foremost ophthalmologists are not convinced of the supreme importance of focal infections in the causation of uveitis or other ocular disorders. A foremost ophthalmic pathologist has stated that, excluding syphilis from consideration, localized retinochoroiditis, which is the type usually attributed to foci of infection, is never produced by any cause other than tuberculosis, and that one microscopic section of a typical lesion is far more valuable as evidence than all the infected tonsils, tooth roots, accessory sinuses, etc., that have been found in all the cases combined.

In many foreign clinics, foci of infection are assigned a very minor rôle in the cause of uveal inflammation. Only recently Pi stated that in the study of 205 cases of endogenous iridocyclitis, focal infection, through dental abscess, tonsillitis, and sinusitis, was not found to be responsible in any case.

Just as those who do not admit that hyperopia is the cause of convergent squint because there are so many hyperopes and so few who squint, so do those who oppose the view that focal infections are the cause of uveitis point to the fact that a high percentage of the population have infected teeth, to say nothing of other foci of infection, and yet uveitis is a comparatively uncommon condition.

In both instances cited there is some determining cause which makes the other operative—in convergent squint it may be subnormal vision in one eye; in uveitis it may be a sensitization of the uvea.

As pointed out by Dr. Weinberger, many clinical observations are difficult to explain; for instance, the occasional rapid subsidence of an iritis following the removal of a focus of infection. Kolmer has sought to explain this by assuming that no secondary focus had yet formed in the iris tissue. Why is it that if the bacteria or toxins are in the blood stream that we do not have a more generalized effect? The answer would be that these bacteria have a selective affinity for the uvea, as explained by Rosenow. Rosenow's explanation has not received general acceptance. Allan Woods, in his book *Allergy and Immunity in Ophthalmology*, states that "conclusive proof is lacking that an allergic mechanism may be responsible for inflammatory lesions of the eye from chronic foci of infection."

The statement that a positive Wassermann or a positive tuberculin test does not preclude a focal infection as the actual cause of uveal inflammation is probably true, but the converse is equally true—the presence of a focal infection does not preclude some other general infection as the cause.

I think there is ample clinical proof of the etiologic relationship between focal infections and uveitis and agree with the author that every known method of research must be used for the detection of the focus.

DR. WEINBERGER (in closing): There is much to be said on both sides. We should not make up our minds too quickly nor be dogmatic about some of these problems which are probably in the infancy of their evolution.

MANAGEMENT OF MAXILLARY SINUS INFECTIONS*

F. EARLE MAGEE, M.D., OIL CITY, PA

With the possible exception of the mouth, the nose furnishes far more cavities and hidden recesses in which the products of inflammation may be retained and act as foci of infection than any other part of the body.

Furthermore, the maxillary sinus, because of its relationship with and the similarity of its mucous membrane to that lining the nasal chambers and other sinuses, as well as its location and proximity to the teeth, is more often the site of infection and tumors than any one of the other nasal sinuses.

In the short time available, I can discuss only very briefly some of the important aspects of maxillary sinus disease, and wish particularly to touch on the general methods of diagnosis; acute maxillary sinus infections, and their connection with the common cold; sinus disease in children, and some remarks on treatment.

Much has been written about the value of each of the usual methods employed in arriving at the diagnosis of maxillary sinus infections; namely, transillumination, roentgen rays, washing out the antrum through its natural ostium, puncture with irrigation, or puncture with withdrawal of some of the contents of cavity for cytologic examination. The antroscope should be the most certain method of diagnosis, as it would give direct observation of the lining of the sinus; but up to the present time this instrument has not proved practical, owing to the insufficiency of vision afforded because of lack of perfection in construction.

Analyzing the methods mentioned, we find: Transillumination, the one method most universally used and perhaps the most reliable for general use, has its limitation; for as it has been truly said, it is a method used to confirm rather than to make a diagnosis. This method is valuable only in suspected frontal and maxillary disease and then it is truly valuable only if unilateral. To make the method more efficient, it has been my custom not only to have the room darkened, but to use a specially constructed apparatus, similar to a photographer's tent to shut out all possible light.

In spite of its merits, transillumination is an overrated method. If the clinical symptoms, together with other methods of diagnosis, point towards a diseased antrum, and a unilateral shadow is obtained, then it is indeed valuable as a confirmation of the clinical findings; but, if

negative, it is no proof of the nonexistence of disease. If an exaggerated illumination is obtained, either unilateral or bilateral, it is very suspicious of the cavity being partially or even completely cystic; an old fibrosis of the lining membrane will also give back a brilliant picture.

The roentgen ray is especially valuable in diagnosis of the frontal and maxillary sinuses, also the ethmoid, and to a lesser degree, the sphenoid, and should be used to assist in rounding out the clinical diagnosis in all suspected chronic antrum cases. It can be depended on to give reliable information regarding the condition of the sinus mucosa, whether it is thickened or undergoing fibrosis, the presence of pus, mucocele or tumor, or bony partitions within the cavity. In addition, it is indispensable before a radical operation in order to determine the depth of the floor, the size and contour of the cavity, the presence or absence of osteomyelitis of the bony wall, or whether or not the roots of one or more teeth extend up into the cavity. No one should operate on a child in the absence of a roentgenogram because of the relation of the antrum to the floor of the nares.

While it is true that the roentgenogram is of vast aid in helping to arrive at the diagnosis of antrum infection, it is often deceiving. F. M. Law stresses the fact that if the films are not made with the strictest attention to the proper technic no roentgenologist nor surgeon can make a satisfactory diagnosis. He emphasizes the necessity for making roentgenograms at different angles and that the lateral views be made stereoscopically.

The roentgen ray in many cases will not reveal a recent acute sinus infection. The clinical examination alone is capable of giving a positive proof of an acute process and that only if one sees pus escaping through the ostium of the sinus. Even then the antrum may be acting simply as a reservoir for pus of the upper sinuses. On the other hand, the clinical examination alone, often misses a chronic affection.

Roentgenograms may be made with or without the previous injection of iodized oil. Many rhinologists, especially C. E. Earnest, report satisfactory results for the antrum with lipiodol. Earnest uses a large cannula or large hypodermic needle with large syringe; but the natural opening may be used with a cannula.

Even positive results with both transillumination and the roentgen ray, when we suspect the presence of a chronic condition, will simply indicate that the sinus is diseased; they will not tell

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

whether the lesions are active. In all doubtful cases, it is preferable for the picture to be taken both with and without the use of lipiodol. The proper interpretation of the picture is more essential than the method used.

Washing out the antrum through its natural opening or ostium can be done in adults, from 55 to 60 per cent of the cases, and is valuable in diagnosis, especially as to the character of pus present, if any. Much can be learned about the state of the interior of the cavity by the returned washings, if collected in a black pus basin. This is of special value in prognosis and treatment; in the case of children also, as the ostium is relatively larger than in adults. The objection to this method is that it does not afford the proper ventilation that is so essential.

Puncture with irrigation is a valuable means of diagnosis when pus is found, and one should not hesitate in either acute or chronic cases to avail himself of its benefits. If a small needle is inserted, very little if any harm can follow its use. The procedure is especially beneficial only in acute and chronic cases with pus present, but it may be distinctly misleading in nonpurulent types as well as in fibrosis of the sinus mucosa or the presence of tumors or cystic degeneration. In these types of cases both the antral trocar and the use of suction give deceptive information of the interior of the cavity. The return flow through the nose may carry material lodged there from other sources.

Puncture with withdrawal of some of the fluid contents for cytologic examination is a method extensively used by many rhinologists, and has considerable merit in diagnosing old, chronic, nonsuppurative types.

Diagnosis of antrum infection or diseased conditions of the mucosa by the use of the antroscope is impractical until an instrument is devised allowing vision of the entire cavity.

None of the instruments now on the market permits us to see all or a good part of the antrum and its recesses. Recently, in Germany, Lüdecke has much improved the antroscope but there is no report of its use in this country.

RELATION OF SINUS INFECTIONS TO THE COMMON COLD

Much has been written down through the ages about the common cold, its cause, and its effect on the human race. The trouble with our analysis of it is that we have tried to take in too much territory, that is, we have included sinus infections under the title "common cold." As I understand it, the "common cold" is a self-

limited disease, one attack tending to produce immunity for at least 6 months; certainly if it lasts longer than 2 weeks we are already dealing with a sinus infection. Recognition of this fact, and timely treatment of the existing cold, before acute complications ensue, would prevent much needless suffering. Some one has truly said, "A slight cold is called a coryza, a severe one always a sinus infection."

This brings up the importance of early recognition of acute maxillary infections, namely, the acute catarrhal and acute purulent.

In acute catarrhal maxillary sinusitis, there may be no symptoms other than those of acute rhinitis except, if unilateral, we find an excessive amount of secretion and darkness on transillumination over the malar eminence and engorgement of membrane lining both lower and middle turbinate bones.

In acute suppurative maxillary sinus infection, there is no odor to the pus, unless from dental cause; no degeneration; no destruction; and the disease tends to be self-limited. In contrasting acute maxillary sinus infections, both nonpurulent and purulent with those of chronic infections, we find they are like the "forgotten man," little has been written regarding them, and they are often overlooked.

There are, however, two very reliable subjective symptoms pointing to acute unilateral, suppurative infection, namely, one-sided alveolar pain, neuralgic in character, and vertigo upon leaning over. These two symptoms together with the history of a recent acute coryza or one of the acute exanthematous disease, especially in children, or an acute attack of influenza, lead one to suspect at once (having taken into account the other symptoms common to all infections, such as general malaise, fever, *etc.*) that he is dealing with an acute infection of the antrum.

The judicious management of acute maxillary sinusitis is one of the most important duties the rhinologist has to perform, for by timely and proper treatment he can often prevent the development of chronic antrum infection. In the treatment of these acute cases, the patient should be treated daily, using palliative and not operative measures, as far as possible, that is, aëration and free drainage. If warranted, do not hesitate to puncture with a fine needle to establish the desired drainage; no other operation should be considered on this inflamed mucous membrane. If one keeps in mind the symptoms and history given above for acute maxillary infection, it is seldom necessary to puncture for diagnostic purposes only.

SINUS DISEASES IN CHILDREN

During the past few years, it has been noted that a great change has come about in the study of sinus disease in children. Sinus disease is as common in children as in adults, and the results from treatment, if disease is recognized early, are even more gratifying.

The diagnosis is made by inspection of the nose and the methods already mentioned. In using the roentgen ray or transillumination it is best to instruct the child not to blow its nose and so empty out the retained exudates.

It is not always as easy to establish the diagnosis in children as in adults, but if we bear in mind that the maxillary antrum is well developed in early infancy, that the ethmoids do not become prominent until about the end of the second year, and that the sphenoid and frontal sinuses are not developed until about the seventh year, we would expect to have infections confined more often to the maxillary and ethmoid in infancy. By treating the maxillary sinus by operation, better results are obtained in the treatment of asthma in children, than in adults. Here an intranasal operation will usually suffice to clear up asthmatic symptoms although an occasional case will call for more radical surgery. Asthma is not in itself an indication for either type of operation.

In puncturing the antrum in older children, never use cocaine but always procaine mud. W. L. Gatewood, of New York, prefers nupercaine to either cocaine or procaine.

Dean, of St. Louis, brought out the fact that the removal of the tonsils and adenoids in children will not clear up the associated nasopharyngitis and frequent bronchial disturbances which are caused by antrum and ethmoid involvement. In these particular types of cases some form of operation is usually called for, and if the disease is in the antrum and does not improve by irrigation, then perform the naso-antral operation. I have had such gratifying results from the naso-antral operation in children that it is a rare case indeed that requires a more radical operation.

No hard and fast rule can be laid down in classifying purulent and nonpurulent or hyperplastic or catarrhal maxillary sinus infections; neither does the absence of pus mean the absence of sinus infections. It is also true that there may be a distinctly pathologic condition present in the antrum with only epithelial cells in the washings. Generally we find the predominance of polymorphonuclear leukocytes in an active or recent process and mononuclears in a chronic low grade process.

From a clinical standpoint it is often the non-

purulent types that do the most damage and Kistner, of Portland, claims there is no outstanding difference in the gross appearance of the tissues in chronic purulent and nonpurulent sinus except in the extreme types.

The two types of maxillary sinusitis most often overlooked are the acute catarrhal, and the chronic nonpurulent.

There are actually thousands of men and women within the confines of Pennsylvania, walking the streets, working in the shops, and tilling the soil, who are chronic maxillary sufferers, although they themselves are unaware of their malady.

MERITS AND DANGERS OF CONSERVATIVE TREATMENT

In the treatment of chronic maxillary sinus infection, no definite rule can be laid down as the treatment must be suited to the individual case. Conservative measures should be given a fair trial before one resorts to radical surgery. Unless it is found that nothing short of a radical operation will benefit the patient, we should first use everything at our command, such as frequent washings over a period of time, suction, and enlargement of the nasal antral openings, *etc.* The last named treatment, however, is most useful in recent cases and should not be used in cases in which is found a degenerated, thickened, polypoid mucosa or diseased bone. If the case is one of suppuration, much depends upon the character of the secretion. If there is a thin, milky, granular pus, which readily mixes with the irrigation solution, with an offensive fetid odor, and no improvement is noted in the patient's condition or in the character of the pus after 6 or 8 irrigations, a radical operation should be performed, since delay would be useless, because it is in this type of case that destructive changes are going on inside the antrum either in the lining membrane or bone or in both.

Here little or no benefit can possibly come from conservative treatment, nor will a large window in the naso-antral wall suffice; a radical operation must be performed to remove completely all pathologic processes from that maxillary sinus.

There is a tendency today towards conservative treatment of all chronic maxillary sinus infections, but there is grave danger of the pendulum swinging too far. Better by far to operate radically than to waste valuable time in delay. Cure your patient by timely and skillful treatment. In the foreign literature there is mention made that Moulouguet and Doniol used bacteriophage treatment in 12 cases of chronic maxillary sinusitis with 7 cures. These authors

think that this method has no advantages over ordinary irrigation. Fuchs has used the bacteriophage in the therapy of ozena and claims good results. We may hear more about this in the near future.

CONCLUSIONS

1. Transillumination and roentgen ray are of equal value in diagnosis of acute maxillary sinusitis, but the roentgen ray is more valuable in the chronic variety.

2. A slight or severe cold is called a coryza; if it exists longer than two weeks, it is due to a sinus infection.

3. The two types of maxillary sinusitis most often overlooked are the acute catarrhal and the chronic nonpurulent.

4. Sinusitis is as common in children as in adults, and the treatment is even more gratifying.

5. The radical operation is seldom required in children.

6. The results of treatment of nonpurulent types by radical operation are usually excellent.

7. The degenerated, thick polypoid antrum mucosa, covered with minute abscesses, or with destruction of the bony walls, calls for the radical operation.

8. The proper management of maxillary sinus disease will go a long way in prolonging and adding to the comfort of life.

ABSTRACT OF DISCUSSION

WILLIAM HEWSON (Philadelphia): Dr. Magee pointed out the difficulties in diagnosing infection in the most accessible of the nasal sinuses. We should not be satisfied with diagnosing the typical case. As specialists we are asked to decide whether a certain maxillary sinus is a focus of infection or not. We can no longer say "This patient has not pain, therefore he has no sinus trouble. His pain is not over his cheek bone and does not grow worse as the day goes on, therefore his maxillary sinus is not at fault." We cannot say that since the roentgenogram and transillumination are negative his sinuses must be clear. We cannot say that negative maxillary washings indicate no infection in these sinuses. We could not say, if it were possible to see the cilia, that the cilia in this maxillary are present and beating normally, therefore the mucous membrane is healthy. Dr. Magee has called attention to these things, but I am sorry he did not have time to explain the reasons for the difficulties in diagnosis. There are at least three important ones:

1. Histologic studies of the maxillary sinus mucosa have shown a few scattered neuro-epithelial cells which are more numerous as the ostium of the sinus is approached. These, like mucous glands, are not developed in as great numbers in the sinus mucosa as in the mucosa of the nose. Pain sensation from maxillary sinus disease is, therefore, often carried by pathways indirectly affected and referred to other areas than the cheek bone.

2. The studies of Fenton, Proetz, and others, have frequently shown infection in the tunica propria layer, beneath the basement membrane of the maxillary sinus mucosa, while the epithelial layer was healthy and intact. Even the maxillary sinus with the most pus showed normal cilia.

After a generalized infection, as in the common cold, it is conceivable that maxillary sinus disease results not necessarily from the invasion of bacteria through the sinus epithelium, but possibly by blood or lymph transmission to the subjacent connective tissue stroma. Infection in such a tissue can remain quiescent or become active without giving signs or symptoms.

Maxillary infection in children can be more speedily cured than in adults, not alone because the sinuses are smaller and have relatively larger ostia, but because circulation in the connective tissue layer of the mucosa in a child is more active, is able to supply combative agents more certainly, and can carry away toxins more effectively.

3. The third reason for our difficulty in diagnosing maxillary sinus infection chiefly concerns our clinics. The art of diagnosis is lost if attention can not be given to detail. It is much easier to order roentgen-ray and laboratory examinations than to take a careful history or do a painstaking rhinoscopy, or spend time over any one of the several special methods of examination. The doctor who thinks up a number of things to do with a patient too often gets the credit when it really belongs to the one who paid attention to the details of a few examinations. As an example, washing a maxillary sinus can be very much of a routine procedure, but a note about the thickness or resistance of the nasal wall as the cannula goes in, the judged patency of the ostium of the sinus, the amount and character of the returning fluid, and the cytologic examination of its contents, each may give the deciding evidence in making a diagnosis.

In considering treatment, Dr. Magee urged conservative measures to improve aëration and drainage until we are convinced that the mucous membrane of the sinus is deeply infected or shows hyperplastic changes. Radical surgery should then be used.

I am sorry there was not time for Dr. Magee to give his views on diet, light, and vaccine therapy. None of us should lose sight of any of these supportive measures for the patient, and as Dr. Magee stresses, the cases should be treated individually.

I should like to warn against washing the maxillary sinus too frequently. The antrum needle or natural ostium cannula are not without their dangers, even in expert hands. In addition to the possibility of mechanical irritation and infection of the deeper layers of the mucosa, should be considered the question of how much harm we might do in removing the protective mucus from a given sinus. As Proetz aptly expresses it, the mucus emitted from the maxillary sinus should be thought of as a drawn-out bag pulled by cilia to and through the ostium and containing on its inner surface enmeshed particles and bacteria. Too frequent maxillary washing, if it does no other harm, certainly interferes with the formation of this one large mucous covering, which is not alone propelled by the cilia on which it lies but by adhesion to the rest of the mucous mass which has perhaps already been drawn through the ostium into the nose or pharynx, so helped by traction to evacuate the sinus. A mucous membrane which can purge itself in this way will never become infected by surface penetration; much interference

with the mucous covering affords an opportunity for a dangerous invasion.

SAMUEL R. SKILLERN (Philadelphia): The history in sinus conditions is an important factor. If the patient tells you that he awakens every morning with a great mass in his throat; by coughing he finally gets rid of this accumulation in the nasopharynx, and then is free the rest of the day, you think of the maxillary sinus. The other sinuses may be draining during the day, but the maxillary does not unless the ostium is lowered (so that the lateral nasal wall becomes the floor of this sinus) as it fills in the erect posture.

Dr. Magee said nothing about the differential diagnosis of the anterior group, namely, the frontal, anterior ethmoid, and maxillary. A patient calls at your office at ten in the morning. At intranasal examination, the mucosa looks healthy, shiny, and moist, with no sign of pus and yet the patient tells you that every night he goes to bed with a headache which has come on gradually in the late afternoon. These symptoms do not necessarily influence what you think, unless the patient has told you before that in the morning he coughs up this tremendous gob of pus. Suppose you look into the nose and see pus coming down between the lateral nasal wall and the middle turbinate. You do not know which sinus is involved. You may wash the maxillary and get a big gob of pus, but that tells you nothing except that there was pus in the maxillary sinus; it does not mean that the maxillary sinus is infected; it may be a reservoir, as Dr. Magee has said. If the patient is examined after three or four hours' and then in washing out the maxillary sinus you get pus, you are still not sure whether it is frontal or maxillary sinus infection. If you look at the nose and see no pus, but you can wash pus out of the maxillary sinus, you are rather sure the maxillary is infected. You can definitely tell by blocking up the normal ostium of the maxillary sinus, then have the patient return after 4 hours, examine the nose, and if pus is coming from the posterior ethmoid or frontal, and if you wash the pus out and then irrigate the maxillary and still get pus, there is an infected maxillary sinus.

GEORGE W. MACKENZIE (Philadelphia): When we examine a patient we ought to know everything about the case, local, general, and otherwise. It is possible to make an accurate diagnosis without the antroscope. With transillumination and roentgenograms of the sinuses it is not possible in all cases to make accurate diagnosis. In fact, I should say it is not dependable in more than 50 per cent of cases, possibly less, the reason being of course that the sinuses are not always symmetric; the pneumatization on one side may be more than the other. If you combine with the roentgen

ray the use of opaque material it is possible to decide the thickness of the mucous membrane and polyps which may cause the displacement.

I was recently embarrassed in a double maxillary sinus operation. The conditions present before the operation continued afterwards, and at a subsequent date an examination, using an opaque medium, showed the patient had two dentigerous cysts on one side and three on the other. At the time of the operation three or four guests were present, and I thought I had done it perfectly. Yet in the alveolar process there were cysts varying from the size of a soup bean to a common marble.

I should like to ask Dr. Magee what form of vertigo the patient had who leaned forward, whether there was nystagmus associated with the vertigo, and if so what was the character of the nystagmus?

PHILIP S. STOUT (Philadelphia): We should ask every patient, "Have you had bronchial asthma?" If he has had asthma he will have a cloudy sinus. Frequently we think we can make a diagnosis of bronchial asthma from hay fever by looking at the sinuses. The anterior and frontal ethmoids and maxillary are the only sinuses you can see by transillumination. Lipiodol and other substances of that sort are really very good to diagnose the thickness of the mucous membrane, and if it is only a thickened mucous membrane it had better be left alone, because digging at it will not improve the condition. If, on the other hand, you find a large cyst or polyps or pus, the patient will not improve until after you operate. The antroscope is like the bronchoscope, one must learn to use it.

DR. MAGEE (in closing): I was giving only the two symptoms that are common in acute maxillary sinus infection. In acute cases, the patient has a one-sided alveolar pain, neuralgic in character, and if the patient leans over he has an ordinary vertigo; if he straightens up, he complains of vertigo. I do not know why, unless it is the pressure of the pus in the maxillary sinus.

I did not go into detail about the history. There are many things I might have said if I had time, particularly about the character of the pus found, *etc.*

As has been said, these patients are sometimes losing their eyesight and cannot read, but nothing was said about the age of the patient. We know that they may be presbyopes and that be the cause of the loss of eyesight instead of maxillary sinus infection; and young children cannot read at all.

There is one thing I wish to say, the thing that more than anything else prompted me to write this paper, and that is (I know many will not agree with me), I wish to go on record as being in favor of puncturing for an acute antrum infection.

TRISTATE MEDICAL CONFERENCE

(Abstract of Report)

The Tristate Medical Conference was held on June 24, at the Union League Club, Philadelphia, Pa., and called to order at 10:30 a.m. by Chairman Charles Falkowsky, Jr., Scranton, Pa., president of The Medical Society of the State of Pennsylvania.

Those in attendance from Pennsylvania were: Charles Falkowsky, Jr., Scranton; Donald Guthrie, Sayre;

Harry W. Albertson, Scranton; Arthur C. Morgan, Philadelphia; Edgar S. Buyers, Norristown; Walter F. Donaldson, Pittsburgh; and Frank C. Hammond, Philadelphia.

Guests: Samuel McC. Hamill and Wilmer Krusen, Philadelphia; and J. Newton Hunsberger, Norristown, Pa.

Sickness Service Echoes from the 1933 Session of New York State Medical Society

JOSEPH S. LAWRENCE, Albany, N. Y.

I carelessly read the program for today and noticed the words "Sickness Service" and "New York State," so I am prepared to give you a brief outline of what we are doing in New York State particularly with regard to the emergency that now exists, and after all that will furnish probably a good résumé of what was done by our House of Delegates.

During the last 4 years the State has revised its welfare work completely. A new welfare law was enacted which carries with it a provision for medical service in a way that was never suggested in the old law. The suggestion in the law is to abandon if possible institutional work, and have medical care to be a feature of home relief. It is appreciable that it is ideal and that one cannot get absolutely away from institutional work, but they have abandoned the use of the word "almshouse" and substituted "county hospitals" so that when home relief is not practicable the patient will probably go to a county home, or if he does not do that he may get service in a county hospital and still remain at home. Home relief must be paid for by the local welfare officer and the law provides that welfare work shall be a county matter if the county so elects. A county welfare officer can supervise and direct all the welfare work in that county if they are working under that scheme, and there are several counties organized on that plan. Where that does not prevail, then modification of the old system will be in effect; that is, the township shall be the unit and the welfare officer of that township shall provide the care that is necessary and shall pay for it from funds allotted to him for that purpose. He may provide medical care according to his own judgment, but hospital care must always be a county matter.

In regard to providing medical service, the old method was to have what they called a "poor" doctor, who was employed by the Board of Supervisors, under which plan he did about as much as he was obliged to do and as little as he could get away with. There is nothing to prevent the town or the county from employing physicians on salary to do the welfare work, but in several places the law does indicate that it is not the preferable method, and in one place the law states definitely that poverty shall not be a cause for disrupting any family or preventing the family from having such services as would tend to maintain its integrity. So that medical relief in the home is much to be preferred to institutional work, and by the family physician as against an employed physician, and much of our relief work is being done according to that plan. The family physician is employed by the welfare officer to do the work where it is convenient for him to do it. If the family physician resides too far away from the family so that travel expenses would be a large item, then if there is no other reason against it a near-by physician is employed to render the service, the idea being to prevent great sums of money being expended on travel service and have that money concentrated on immediate service to the family, the welfare officer.

In the first, second, and some of the third class cities this system cannot prevail. The cities have their own welfare organizations but those cities have what they call "city physicians," men employed on salary and the family service is not ideal. This provision is in the city charters and cannot be changed, and in some instances it is better without legislative approval. The sentiment is rapidly developing in the state toward having the

charters revised so that the city physicians can be abandoned as a definite practice and if feasible medical service is given by employing the family physician. In most instances he is employed at his regular fees. Sometimes there is a reduction of fee but there are no state fee schedules. Some of the counties are adopting them in order to develop this work further, but in most instances the regular fee of the physician for such service is paid by the welfare officer.

In addition to these persons who are dependent upon the public because of the present financial condition, and also in addition to the regular charity patients that we have always had, we have also the problem of the old-age pensioner. These persons are cared for by the state and county on a 50 per cent basis and at present their medical service is provided in the same manner. The welfare officer or the representative of the pensioner, or some representative of the department of social welfare where the Old Age Pension Bureau is, sees that the physician is employed and he is paid in that double way, 50 per cent by the county and 50 per cent by the state. The state subsidizes the county to that extent.

In addition to that are funds which are made available by the state through the Temporary Emergency Relief Administration. The state has had several large bond issues, and there is another one in the offing for 60 millions, and there are some funds from the federal government. There are special administrative officers in every county for this purpose. They cooperate, however, with the regular welfare officers so that physicians are employed through the welfare officer and paid for by him. He has an opportunity of being refunded in part for the money spent; 40 per cent refund is available for home relief work. In providing medical services, recognizing the difference there naturally would be in fees that are charged and collected by physicians in different parts of the state, the Temporary Emergency Relief developed an understanding with the welfare officers by which it refunds to the welfare officer on an arbitrary basis of fee, that basis being \$2 for a house call and \$1 for an office visit, and \$25 for an obstetric case. With that as a basis for every case that the welfare officer supplies the service to, the Temporary Emergency Relief will refund 40 per cent. The welfare officer is not expected to keep this basic fee as the entire fee to the physician. It is expected that he shall pay the regular fee that the physician may have had but he will expect from the Temporary Emergency Relief a refund on the basis of \$2, or \$1 as the case may be. That is somewhat difficult to explain, but they wanted a uniform basis throughout the state so that one district would not be getting from the Temporary Emergency Relief a large sum of money while another district would be getting a smaller sum for the same amount of service. Yet it was recognized that the same service might be more expensive in one place. For that reason this uniform basis was established.

In the rural districts the matter of mileage immediately injected itself and the Temporary Emergency Relief Administration said they would have no objection whatever to the welfare officer paying mileage and thought that he should pay it out of his own funds. They would not refund anything on the mileage nor on hospitalization charges, so that the welfare officer must pay the mileage and must hospitalize if necessary, but can get a refund from the Temporary Emergency Relief to the extent mentioned.

Another matter came up which is being considered by a special committee in the state at the present time, that

is, the compensation services. I believe that service would not give any sickness relief, however.

WALTER F. DONALDSON (Pittsburgh, Pa.): It would be interesting to see that system tried in Pennsylvania at the present time.

DR. LAWRENCE: A committee appointed by Governor Roosevelt more than a year ago submitted a report just as he was retiring from office, which he referred to the Academy of Medicine for review. We took exception to his referring this to the Academy because it is a scientific body and not an organized society such as our medical body. Governor Lehmann referred the matter to 5 men from the Academy and 5 from the State Society. These men are doing more than reviewing that report; they are rewriting it and will probably have a report ready to submit by the end of this year. They are finding the matter an exceedingly difficult one, although it is not as difficult as it appeared 2 or 3 years ago. The insurance companies are very cooperative and are assisting with advice and data in order that this committee may get a correct picture of the compensation problem. The insurance companies are aware of the fact that wildcat clinics, etc., have been a detriment to them as well as to the workmen. The Department of Labor is likewise sympathetic to the study. They have several times expressed their intention of making a survey of their own after the first report was made available, but I have not heard anything since the second committee was at work.

There is a strong feeling on the part of labor that insurance of workmen should be carried by the state, that there should be one fund, a state fund. We of the medical society are convinced that would be a bad method and are using all our influence to prevent such an idea gaining support. Unfortunately there are a great many physicians in the state society who feel that they would get better service if all insurance were carried by a state fund. We have a fund at present that is competing with the commercial insurance carriers and which carries a great deal of the insurance in the state. Some physicians claim that they get better cooperation from that fund than from the commercial carriers but more physicians apparently are dissatisfied with that method than are satisfied.

DONALD GUTHRIE (Sayre, Pa.): In regard to the care of the indigent, as I understand it there is something about our charter in Pennsylvania that would prohibit the adoption of any method like the one called the Iowa Fund in which each county commissioner in arranging his budget allows so much for the care of the indigent. Each individual is scored up against the fund at the rate of \$2 for medical care for the year, and then out of this common fund which is given over to the medical society the services of the physicians are prorated. I should like to ask Dr. Donaldson if he knows whether there is anything in Pennsylvania's charter that would prohibit any such scheme as that?

DR. DONALDSON: I am sure that none of our county component societies are so organized at present that they could go ahead on their own and make contracts. I think there is a charter preventing that. It would have to be signed by a group under control of the county society. Michigan had a law passed in their legislature which permits a group of doctors to make a contract with a much smaller political division than a county society. We might have to do something of that kind in Pennsylvania.

DR. GUTHRIE: What plans have been suggested to carry the indigent?

DR. DONALDSON: That is a pretty big problem to inject in this discussion at the present time. Most of these men should be familiar with our Erie County plan, probably the most ambitious of all our county society plans. I would refer you to the April number of the PENNSYLVANIA MEDICAL JOURNAL.

May I ask if there is any concerted opposition in New York State on the part of carriers or employers or employees to certain doctors, or a preference shown for licensed industrial surgeons or organized industrial clinics rendering care beyond first aid over the private practitioner? Do they take a position that those who are insuring should be treated if possible only by a licensed industrial surgeon or clinic?

DR. LAWRENCE: The sentiment among industries is changing on that score. We have a recognized group of industrial surgeons most of whom are men employed by self-insurers. They have an organization that meets twice a year. They have met with us at our State Society annual meeting and they are all recognized men of ability. In addition, there are certain clinics that certain large industries have favored. One of those is the Wolfe Clinic in New York City—quite an extensive organization. At one time this clinic had more than 20 branch stations in the city with 1 large central headquarters. Industries are not particularly partial to that way of doing business except, that a large employer is more satisfied if the surgeon is the self-insurer, but the insurance companies through an organization of theirs have had representatives in conference with representatives of the county societies of greater New York and a gentleman's agreement has been arrived at under which they have been working now for more than a year, recognizing the family physician even to the point of permitting him to do work without authorization, although it is required by law that authorization should be sought in advance. The county societies have contributed much in producing this form of safety by taking over a certain portion of censorship or interest in the fairness of the family physician's work and charges.

DR. DONALDSON: Do they take any interest in the quality of his services?

DR. LAWRENCE: Yes. They have several times suggested that there might be a time in the near future when only experienced persons would be permitted to do industrial work, such as those who could be supported by the county society.

These Arbitration Boards that the county societies have set up in greater New York are composed of 2 members of the county society and 2 members from the insurance company's organization as referees. If there is any difficulty arising as to the quality or cost of work, between the company and physician, this matter is brought before the Board and it is there ironed out. In the majority of instances the insurance company has given way but in several instances physicians have been found at fault. One physician refused to abide by the decision and wanted to continue his work as before. That led to the question of whether the county society should discipline him or not. This Arbitration Board would have no jurisdiction over nonmembers of the society. The insurance companies have been permitting those physicians the same privileges as members of the societies, because after all the insurance companies pay the commission to the one who has an interest in his case.

J. BENNETT MORRISON (Newark, N. J.): We have similar commissions in New Jersey but there is no commission paid by the doctors. The only subject they dis-

cuss is the matter of the bill. If the insurance company considers that the bill is too large, it may be referred to this committee which is similar to the New York Committee, and the action of the committee is final. Since those committees began to act about 6 or 8 years ago, there have been practically no disputed bills presented. This method has been very satisfactory in its operation. The insurance company abides by the decision.

DR. LAWRENCE: Dr. Guthrie spoke of the Iowa plan. We have in one county in New York a modification of the Iowa plan. Ontario County by agreement takes all of the relief work that is required. The family physicians are called upon and they render service and file a bill. At the end of the year these bills are taken altogether and each physician is paid pro rata from the amount that is apportioned by the Board of Supervisors for relief that year. Last year the physicians' bills were paid and each physician got about 16 cents on the dollar for the services he rendered. It was hoped that they might do better this year. I do not know that they will because while the budget is a little larger, medical relief service is growing rapidly and persons are asking for much more than before.

One other matter I should like to mention is in regard to hospital dispensaries. We are making earnest efforts in New York State to solve this difficult problem. The last legislature had 2 bills introduced, which did not get farther than the committee, to prevent hospitals from charging for outpatient service, that is, general hospitals or charity hospitals supported by public funds. The contention was that any person who could pay for outdoor service was not an honest charity patient. No general hospital should be prevented from rendering charity service to the indigent but they should be prevented from rendering charity service to the partially indigent. Buffalo has adopted a method on the order of the Cleveland plan, and Rochester has adopted what I consider a very definite improvement over the Cleveland plan.

Prepayment of hospital services is being considered, although nothing definite has been worked out along that score.

DR. MORRISON: Your Suffolk County plan is much better than your Erie County plan, is it not?

DR. LAWRENCE: They are different. Our Suffolk County plan is really a development of our general state program for county service. I refer to Erie County, New York, of course, and not Pennsylvania.

Sickness Service Echoes from the 1933 Session of New Jersey State Medical Society

J. BENNETT MORRISON, NEWARK, N. J.

We have been compelled this year to cut the salaries of our employees \$2800. Year before last our dues were \$15. Last year they were cut to \$10 and we voluntarily took a deficit of \$5200 which was paid out of our permanent fund. This year we carried out the economies mentioned and raised the dues to \$11, and with these dues from 2900 members we are accomplishing as much if not more than any state of our membership size in the Union.

We reported last year that we had adopted a plan for accrediting specialists. It passed the Board of Trustees, the Welfare Committee, and the House of Delegates, but so much opposition arose in 2 of the larger counties that we were compelled to hold it in abeyance. Since then I have been in correspondence with the state societies of Ohio and Vermont and we hope that our activities have stimulated the American Medical Asso-

ciation to put something of the kind on the board as a national provision.

One thing occurred in our state that was of interest to you. Last year one of the Boards of Trustees of a certain hospital deliberately dismissed a member of the Board of Supervisors who had been serving for 30 years. The entire staff of 40 members resigned. Two or 3 doctors took care of the hospital but they were so crippled that the Board of Trustees was compelled to put in a superintendent of our choice. We have adopted a resolution that when a Board dismisses the staff of a hospital that any doctor in the community who should give service to that hospital in place of those men would be subject to dismissal from membership in the state society until the matter had been discussed at a meeting of our judicial council, to which the secretary of the county society and Boards of Trustees had been invited. So that we trust this sort of thing will be permanently terminated in New Jersey.

From a legislative point of view we passed the Narcotic Act after having it modified to meet with our approval. The act provides for a separate license fee and limitation of the amount of narcotics that can be prescribed by physicians. The Narcotic Act as passed is satisfactory to all.

We had rather a hectic time over an osteopathic bill. The Board of Osteopaths introduced a bill, first changing their definition. They realized that osteopathy was a failure under the old definition; they stole their definition verbally from our medical practice act so that the practice of osteopathy would be identical with the practice of medicine in every way. They introduced an amendment providing that the osteopaths could use drugs. Another joker in the bill was that osteopaths who had been in practice for 5 years upon showing the evidence that they had taken a year's postgraduate course in a hospital, should be recognized with all the privileges of a physician. A great deal of money was spent and a great deal of pressure brought to bring this bill up but we succeeded in holding it in committee and it is killed for this year. It shows what these men are doing. Eventually we will have to absorb them. We hope to introduce another measure that will provide a uniform standard for everybody who enters the healing art in order to stop the yearly bickering of these cults.

The matter of funds came up again and the government put in a bill which would put the local practitioners on the same footing as in New York and Pennsylvania. We fought that to a standstill. The bill failed to pass in the Senate and we offered an amendment which they would not accept. In the House we offered the same amendment and there it passed by a vote of 45 to 6. The Senate again turned that down. It was then necessary to appoint a Conference Committee from both houses and we were successful in having the Speaker from the House report favorably on our amendment. We forced the administration to accept our amendment for a 2-years' try-out so that for 2 years longer we will spend our own funds for prosecution.

We have met the emergency relief condition in New Jersey somewhat along the lines outlined by Dr. Lawrence. We have 140,000 families receiving emergency relief and the number is increasing. This means that the persons who are receiving that relief are on a dole system in New Jersey. The medical profession was approached by the relief association and we agreed to furnish relief at about two-thirds of the fee usually charged in the communities in which the service was given. It was left optional with the medical profession whether they would apply for mileage. The number of

persons seeking relief in New Jersey is increasing constantly and it is a most serious problem. The government is short of funds and if they are not able to carry on this work in the future it will probably mean a Panel System. Under this plan, besides paying the physicians, they also hospitalize patients at \$3 a day. We are watching it with a good deal of interest and with much apprehension.

DR. DONALDSON: Was this proposal that you made to the Emergency Relief Association accepted?

DR. MORRISON: Yes, in every county.

DR. DONALDSON: Have you any idea how expensive it has been in counties in which relief is most needed?

DR. MORRISON: I cannot answer that. We have been operating only 2 months.

DR. LAWRENCE: Did I understand that the Temporary Emergency Relief is paying hospital bills?

DR. MORRISON: Yes, \$3 a day. We specified that they could terminate that relationship whenever they wished.

DR. WILMER KRUSEN (Philadelphia, Pa.): If the staff of a hospital resigns and there are patients in the hospital who are seriously ill, how are they taken care of?

DR. MORRISON: It was a question of whether that responsibility should be put up to the lay board. During the interim the patients were taken care of by local doctors. In this particular hospital referred to they had a man come in from outside the state. The reaction of the public was so favorable to our stand that the Board of Trustees finally came to our way of thinking.

DR. HENRY O. REIK (Atlantic City): I think the Board had already made provision for engaging men from out of town whom they intended to put at the head of the hospital.

DR. KRUSEN: We have this great group of educated public opinion watching our efforts to protect the public and the profession.

DR. REIK: Dr. Morrison said that the relief agency had been operating only about 2 months. The relief work was originally begun in the counties, more than a year before, but it was on a separate county basis. The reason for having the state take it over was because of the excessive expenditures in some counties, which was exceeding the possibility for the relief administration to carry it on, so that instead of making arrangements with separate individual county societies the relief agency appealed to the state society to handle it as a state proposition.

DR. LAWRENCE: If a physician renders aid to a registered indigent individual does he receive \$1.50 if his usual fee is \$2?

DR. MORRISON: He receives \$1 for an office visit and \$2 for a house call.

DR. DONALDSON: Are you spending federal funds?

DR. MORRISON: Yes.

DR. LAWRENCE: Doesn't the county society have anything to do with the relief? Is it all done under the supervision of the state?

DR. MORRISON: Yes, all under the supervision of the state.

DR. LAWRENCE: Do you think that is a better plan?

DR. MORRISON: We think it is giving more immediate relief with concerted effort than if left to the individual county societies.

Sickness Service Echoes from the 1933 Session of The American Medical Association

HENRY O. REIK, ATLANTIC CITY, N. J.

I was an individual member of the American Medical Association meeting in Milwaukee, and was anxious to obtain information but found it exceedingly difficult to do so. I sat in at one session of the House of Delegates, heard a number of resolutions presented and snappily referred to committees, indicating that it had all been cut and dried and formally prepared. The only ones that were presented so far as I was aware were of an innocuous character and did not render much information that I could bring here as to the ultimate treatment by the organization of that final committee report on the costs of medical care, or of related matters.

In talking with individuals I found quite a variation of opinions as to what should be done in connection with any of these problems that we have been considering.

I do not know how many of you read Al Smith's address upon receipt of the Harvard Degree but it is worthy of attention. With his unusual ability for putting his finger on the right thing as the most important, he referred to the most dangerous condition in this country at the present time being that of minority control. And that is the sort of thing that has occurred with us in regard to the hospital situation, for instance, and quite a variety of other affairs. We should all read his address and ponder on its relationship to some of our medical problems.

If I may reduce my thoughts to the State of New Jersey there is one matter of interest which was brought into effect at the recent annual meeting of the New Jersey State Society during the first week of June. Some 2 years ago a condition arose in the State that caused much worry. The State Board of Health has an exceptionally fine man in charge of child welfare work and he set up clinics in various parts of the state in which he found it impossible to deal satisfactorily with members of the medical profession and have them do the things that should be done, often times that were promised to be done, and then when he finally had to look after the condition and provide for it, often having it done by nurses, a good deal of trouble arose, protests against the nurses practicing medicine, *etc.* There developed at the end of the State Society session in 1931 the fact that 2 special committees had been provided to deal with such problems. It was perfectly patent that a scrap was intended and the groundwork carefully laid therefor. The president in considering the appointment of those committees did the wise thing of making one man chairman of both committees, selecting for that man Dr. William G. Schauffer, of Princeton, a past president of the State Society, one of the most lovable men any of us has ever encountered, one of the wisest men perhaps in dealing with big medical problems. When those two committees were selected on this basis of intended antagonism, in a very short time he had the meeting out of his hands but he had them combined into one committee and made them all agree to one thing after it was properly discussed and prepared. Finally, out of that committee came a report which was presented this year at the annual meeting of the State Society. There are some points in it that are of particular interest because it deals with some of the problems that we have been discussing and it takes rather an advanced position of leadership on the part of the profession itself.

The report opens with this statement:

"Your Committee has been busy this winter making specific plans for the assumption of public health leadership by the organized medical profession of this State by two methods":

This is a progressive step but it is not all going to be as easy as it is made to appear here of course. In view of what has been done under the name of depression for the hundreds of thousands of families that are in a state of inability to pay for their medical attention it appears possible that there will be a million persons in the State of New Jersey in need of aid. New Jersey has a population of only 4,000,000 and when Dr. Morrison says that 150,000 families are receiving financial aid at the present time you can see how that cuts into the population rate.

In accepting this method of state-wide relief administration, we are taking a perfectly clear picture of so-called state medicine and I was rather amused in some instances to observe the manner in which men see red at the use of the word who nevertheless grasped this willingly and anxiously. I have been wondering whether, as a matter of fact, the very strong opposition to that National Committee's Report is not after all really a position taken by a minority of the medical profession. From some of the conversations that I have heard I should say that I would not be at all surprised if a national health insurance proposition, say similar to that which has been asked for by the physicians in Great Britain, were to be submitted to the profession as a whole and every man given an opportunity to vote upon it, that it would be accepted by a big majority. That is only my personal feeling about it. I have reviewed this question from every possible angle and considering the suffering that the profession has had during the past few years I am inclined to think that they would not be adverse to such a proposition. Whether they would or not, we are faced by the fact that a very large number of persons are coming under this relief administration of medical affairs at the present time. How long that will last we do not know. The fact that we have succeeded in putting into our acceptance of the problem a statement that the State Medical Society should be the agent to determine when such matters shall come to an end does not necessarily mean that they will have come to an end on that particular date, and I do not believe that they will. We are taking care now of thousands of persons who will never go back to the private family physician payment for medical service after having had a taste of state-wide care. The care is going to be quite as good and, as far as possible, through the same agencies so that they will not go back willingly if at all to the direct payment of fees to their family physicians. We have in that proposition the most progressive step that has been made to date toward the acceptance of some form of so-called state medicine.

Pennsylvania Emergency Child Health Program

SAMUEL MCC. HAMILL, PHILADELPHIA

A few years ago there was organized in this country an Academy of Pediatrics. It now has a membership of almost 600. It was not created to compete with or to duplicate the services of already existing national pediatric societies. It is not just another clinical society. Its principal interest is in the preventive aspects of pediatrics. The Academy aims to function in large part through the medium of state committees, the purpose of which is to develop state-wide programs for the protection of the health of children.

The Pennsylvania Committee was organized in the early part of the present year. At its first meeting, called for the purpose of developing a program, it gave consideration to the procedures that had been adopted by corresponding committees in other states. After careful consideration it approved, with certain modifications, the plan that had been developed in New Jersey. This plan, which I understand was largely due to the vision and untiring energy of Dr. Stanley Nichols, of Asbury Park, called for creation of a state-wide committee under the auspices of the State Medical Society and having in its membership representatives from the State Departments of Health and Education.

The Pennsylvania Committee of the Academy, realizing that it was not numerically strong enough to put over a state-wide project, presented their program to the officers and trustees of The Medical Society of the State of Pennsylvania and overtured them to put it into action in Pennsylvania. While this recommendation was under consideration a situation arose which created an opportunity for an early response to this request. The Governor of Pennsylvania invited the writer to a conference in Harrisburg to consider the protection of the children of the State against destructive influences of the present depression. Pennsylvania was feeding 450,000 families at that time and in this number there were almost 1,000,000 children. All available evidence indicated that malnutrition was developing rapidly in this group as well as, and especially in, the children of the large number of families on the border-line of relief. The outlook for the future was uncertain and unpromising, and it was clearly evident that unless some well developed procedure was established for supervising the health of these children, there was promise of serious consequences to their future well-being.

It was decided at the Conference that, inasmuch as the subject to be dealt with pertained to the *health* of children, it should naturally be handled by the medical profession. To this end a small group, including the president, president-elect, and secretary of the State Medical Society, met with the Governor to consider a plan of procedure.

The plan evolved called for appointment of a State-wide committee having in its membership representation from the State Medical Society, the State Dental Society, and all outstanding privately supported agencies having to do with the health and welfare of children. It further provided for a medical chairman to be selected by the State Medical Society. All appointments to this committee were to be made by the Governor on recommendation of the President of the State Society, and the committee was to function under the auspices of the Society.

Two Advisory Committees were provided, one containing representatives from the Departments of Health, Education, and Welfare, and the other to be made up of pediatricians to aid the chairman in preparation of health examination forms, selection of health literature, *etc.*, and to advise respecting educational procedures if an educational program seemed desirable. The plan further provided for county committees, with the same kind of representation, to be selected and administered by the county medical societies.

It was not intended that these committees should in any way duplicate the work of any existing agencies or institutions, but rather, that they should bring into co-ordination the efforts of the medical and dental professions and all publicly and privately supported agencies interested in the health and welfare of children, for the purpose of supervising and protecting the physical and

mental health of Pennsylvania's children through the existing economic crisis. The entire procedure is on a voluntary basis. The only funds provided are for the traveling expenses of the chairman and two vice chairmen, secretarial work, and general office expenses.

This plan was formulated in February of the present year. The State Committee was appointed promptly and it met in Harrisburg on March 2 and unanimously approved the plan above described. The work, owing to delay in securing funds, was not begun actively, however, until about March 29. Despite this fact, the chairman and two vice chairmen have visited to date more than three-fourths of the county medical societies and placed the entire program before them. Every society thus far contacted, with one or two exceptions, has agreed to organize a committee and undertake the work. This is in large part due to the enthusiasm and wholehearted support given the committee by the officers and councilors of the State Medical Society. In many instances the councilors have made it a point to be present at the initial contacts with county societies, and they have given a vast deal of assistance in other ways.

Twenty-eight chairmen of county committees have been definitely appointed by county societies and five have been suggested but not finally chosen. Fourteen counties have asked for examination forms. About twelve of these are actually at work. These results to date are so far beyond our expectations (although not our hopes) that we are greatly encouraged.

The usual organization of the county committees consists of a medical chairman appointed by the county society who together with his colleagues selects one or more lay vice chairmen or women and a small planning committee. This committee in turn considers a tentative plan of organization and procedure given them by the State committee, adapts it to the special needs of the county, and selects the personnel of the general committee.

As the purpose of this movement is to protect the health of children, it necessarily involves health examinations. This constitutes the principal function of the county medical societies in this work. In order to make the examinations uniform and have them reveal a picture that will enable the physician to determine the health and nutrition status of the children examined, a brief health examination outline has been prepared by the Advisory Committee of Pediatricians and approved by the State Medical Society. The physicians volunteering for this service are recruited from the county society, and the places at, and hours during, which they desire to make their examinations are recorded.

To make this service as easy and expeditious as possible for the physician, the fully organized county committees are providing one or two volunteer assistants for each physician. These volunteers prepare the children for examination, weigh and measure them, fill in the brief history asked for, and record the findings of the physicians as they are dictated. They also see that the recommendations of the physicians are sent to county headquarters for action, and report back to him the disposition of the case. An additional very important function of the volunteers is to serve as motor messengers for the transfer of children from their homes to the physicians' offices or other designated places of examination. For these services the volunteers are given a course of training and are required to submit to regulations such as would be required of paid workers.

Preliminary to these examinations, the county committee determines the particular groups from which the children are to be brought for examination. In practi-

cally all counties in which work has begun, the first group selected is that of the children on relief, although it is known that many of the children of families on the border-line of relief are suffering quite as much, if not more. It is easier to locate the children of families on relief and this enables the committees to get under way promptly.

Another function of the county committees is to locate and provide for the care and delivery of pregnant women in the families of the indigent. Lack of obstetric care has constituted a serious problem in some counties.

In order that each county may know something of its problems in terms of the status of the health of children and the needs of expectant mothers, we have urged the county committees to make as full a survey as possible to locate those in these groups who are in need of supervision.

The best way to make the work of a county committee successful is by choosing a well-qualified lay vice chairman who has had experience in organization and administration. In one county, for instance, the vice chairman visited practically every section of the county, and had her volunteers provided by the time the physicians were prepared to begin examinations. Such a vice chairman, by studying the problem and organizing the committee effectively, can relieve the chairman of practically all detail work, and of this there is a vast amount: Selection of headquarters, locating and selecting and training volunteers, assigning them to the various services, and seeing to it that they function effectively. She will also plan for the education of mothers in the families on relief as to the best methods of using the foods apportioned them by the Relief Board where commissaries exist, or in teaching them how to expend money doles or restricted budgets in such way as to secure nutritious foods at small cost.

In every county three groups have volunteered for such educational procedures—home demonstration agents, home economics teachers, and dietitians. They are being used effectively in giving food demonstrations to groups of mothers. They show mothers how to prepare the food assigned them in palatable form, and how to divide it so as to secure a balanced diet and a distribution that will cover the period of days the food is supposed to last. This constitutes an important group who can be of great aid to the county committees in giving valuable instruction on nutrition in the schools and to all groups the committee may wish to have broadly informed on the subject.

There are approximately 10,000 unemployed nurses in Pennsylvania at the present time, and the nurses' associations have said that they would be available for volunteer work and have provided their names and addresses for each of the counties. These nurses will be serviceable as physicians' aides, and it should be the function of the county committee to bring them into service and to assign them in so far as possible as aides to the physicians who are making examinations.

We are confronting many problems in the course of this work and some of them at times seem insurmountable. In order to reduce the number of examinations, we are suggesting to the county committees that examinations be not repeated where there is evidence that children have been carefully examined recently—as in schools of first, second or third class—at least until all other groups have been examined. But, as we are undertaking supervision of the health of children, it is important that the county committees endeavor in so far as possible to keep in constant touch with the child situa-

tion, so that serious mishaps may not develop unobserved.

We realize also that it is extremely important at all times, but especially in times of stress, that the children of the well-to-do and rich should receive health examinations. The present economic crisis has spared none of us. Every family is feeling its influence. This, with the grave uncertainty of the future, has created within every family an atmosphere of depression, tenseness, and irritability. These manifestations are reacting unfavorably on the mental and physical health of children. Psychiatrists especially interested in children's work tell me that they are meeting with just such problems. For this reason we are urging the county committees to lay special stress on the importance of health examinations for all children.

The most neglected age group is that between birth and the sixth year—the so-called preschool group. We have been unable to get much information regarding the status of the nutrition of this group. We are therefore urging that these children be given special consideration.

The exhaustive studies of the White House Conference revealed that a very small percentage of the children in this preschool group have been vaccinated or given toxin-antitoxin. We are therefore asking the examining physicians to list these cases, in the hope that they may ultimately receive this necessary protection.

The most serious problem we have to confront is provision for removal of adenoids and tonsils. Even in normal times this constitutes a problem. For this reason we are urging that only such cases as may fall within the emergency group be referred for operation.

Our next most serious problem is correction of dental defects. Every one knows the extent to which dental caries has developed among American children. This means much curative work and the establishment of intelligent preventive procedures which are closely related to diet. The dental profession is cooperating most encouragingly, and in some counties the dentists have volunteered to take care of emergency cases in their offices.

The correction of eye defects is also serious but, fortunately, the number is relatively small. We are urging the county committees to develop some kind of service that will care for the more serious cases.

The building-up of the undernourished, if this is due to lack of food, is simpler. Most of the County Emergency Relief Boards will provide extra foods for such children on the physician's recommendation. Those who do not respond to dietary treatment require further medical study.

I have drawn the picture of a formidable undertaking. No worth-while job is easy. We have advanced far enough, however, to prove that this job can be carried out effectively provided a large enough county committee is carefully selected and a large enough volunteer force is brought into action.

Let us consider just what this whole program means to the medical profession.

In so far as I know, this is the first time in this country that organized medicine has been invited to head up and direct a great emergency movement. The common procedure has been to have such activities organized and directed by lay persons. When medical problems arose, urgent appeal was made to the first physician available to aid in their solution. Fortunately, Governor Pinchot saw the wisdom of placing the responsibility in the hands of the State Medical Society. In doing this, he has given the medical profession what I believe is the greatest opportunity it has ever had to show what it can

accomplish in a great undertaking to supply a serious health need in a time of crisis.

It has done vastly more than this, however. It has enabled us to establish the principle of medical leadership in health matters. Indeed, it is the hope of the officers of the State Society that this emergency committee may continue in a modified form as a permanent organization after the present crisis has passed, so that at all times the health activities of the county will remain under medical leadership and supervision. This will enable us to eliminate certain abuses that have at times arisen in nonmedically guided activities, and better to coördinate the services of these agencies, which will result in better health service to the community. It will prove a great step forward in establishing the principle of periodic health examinations.

The trend in medical procedure the world over is in the direction of protecting the health of the individual instead of devoting our sole energies to trying to cure him after he has become ill. For our own financial protection it is essential that we encourage this practice. The public is being educated rapidly to the advantages of prevention and, as Dr. Vaughan has aptly pointed out, but 2 per cent of the population are ill at any one time and 98 per cent need to be kept in health.

There is one more point to which I wish to refer. For some years we have been fearing the socialization of medicine. It is my firm belief that if we meet effectively this obligation, we will have taken a long step away from social medicine. We will have brought the medical situation under our own control, and we will have established in the public mind a faith in and reliance upon us that they have not accorded us for a long time.

DR. LAWRENCE: Does your State Department have a Bureau of Child Welfare?

DR. HAMILL: Yes.

DR. LAWRENCE: Does it hold well-baby clinics?

DR. HAMILL: Yes, it does.

DR. LAWRENCE: Does your organization now cooperate with them?

DR. HAMILL: It does. At the present time they are conducting, at the request of the relief board, extensive examinations in certain sections in which commissaries have been established to determine the effect of commissary feeding upon children. They are examining 1000 children in each of these areas. They will not go into any county to make such examinations unless they first get the coöperation of the county medical society, and they are using the same examination forms that we are using in State work.

DR. MORRISON: Are you receiving financial assistance from any source whatever?

DR. HAMILL: Only for the traveling expenses of myself and two vice chairmen. We have adopted the principle of going directly to the county society to discuss these problems with them. We also get stationery and other office expenses for secretarial work. No salaries are being paid except to secretaries. We have not been as fortunate as you were. We have attempted to secure some financial support for the physicians and went to Washington to discuss the matter with the Reconstruction Finance Corporation, but we were turned down.

DR. LAWRENCE: Do I understand that you get your funds through the Temporary Emergency Relief, which is a different organization?

DR. HAMILL: Yes.

DR. LAWRENCE: Is not that a part of the Federal Relief?

DR. HAMILL: Yes, it is, but they approved no funds for drugs or physicians' fees.

DR. LAWRENCE: You are not limiting yourself to the preschool child, are you?

DR. HAMILL: No, but we have been able to get some information regarding the studies of nutrition in the school child through the medium of school examinations. In all but 17 counties there was evidence of very marked increase of malnutrition among the school children. The only evidence we have of the preschool child is through the State relief care which examined 10,000 children last year, and during 1930 and 1931 there was no change in the nutritional status of the children, but in 1932 it rose about 15 per cent. That was a study dealing solely with the preschool group. I have written to New York but could get no information.

DR. LAWRENCE: We have been trying to encourage such study as an activity of the private physician. Do you examine the county clinics by the cards of the members of the county medical societies?

DR. HAMILL: Yes. They examine only indigents at the clinics.

DR. GUTHRIE: Are not the children of the well-to-do brought to the clinics?

DR. HAMILL: No, they are not.

DR. LAWRENCE: I should like to interject an observation at this point in regard to the services that we are extending to the people at the present time, a differentiation from the service that was extended to indigent people generally in the past. In New York State, as in the other states, they have appropriated state funds for assisting these temporarily indigent people. These funds are different from the ordinary appropriations made in preceding years.

DR. DONALDSON: Were they what we ordinarily called paupers?

DR. LAWRENCE: Yes. I was discussing in Madison County the other day this question of temporary medical service and found that the county society had gone on record again as being ready to provide all medical services that were needed by the people of that county whether they could pay or not. Those who could pay for services would do so and the others would be as certain to get service as those who could pay. They had not asked the state to compensate them for these services for which the patients could not pay. I thought that was making a mistake.

Heretofore we have always considered the indigent as our private charity. We have extended our services according to the Hippocratic oath to the indigent, but there is a group now between the indigent and those capable of paying for their services who are self-respecting and who up until this period were self-supporting, contributing citizens of our several states. They paid taxes and did all the functions of a supporting citizen. At present owing to the economic depression they cannot do so. The funds supplied by the state in this emergency are, in my opinion, supplied for the purpose of helping those citizens maintain their respectability and take the stand that they have suddenly gotten into this position through no fault of their own but just because they happen to be a resident of that state when this condition arose, and the state therefore assumes the responsibility of continuing their respectability and citizenship during this period of stress. For

that reason the physicians should not contribute services but should help the state maintain the standard of that family and the state should pay him for his service through the funds that have been appropriated for that very purpose.

DR. DONALDSON: Is the state also paying for food for the group referred to?

DR. LAWRENCE: Yes, they are paying for food, rent, clothing, and medical service. These persons are registered under the relief organization.

DR. HAMILL: Are the doctors throughout the state being paid in this way?

DR. LAWRENCE: Yes. There are some individual physicians who continue to give their services free, but the policy of the state is to pay for it out of the Temporary Emergency Relief.

DR. HAMILL: That would constitute a very large problem in the State of Pennsylvania because a very large percentage of these people who are now on relief are self-respecting citizens who have met an unfortunate situation in which they must appeal for alms.

DR. LAWRENCE: They do not wish to accept this service and have these bills confronting them to be paid later, and if they are not paid they cannot help but feel that the doctor has paid their bills for them. If, on the other hand, the physician makes his charge and it is paid by the state fund, the patient will feel that obligation is discharged by the state for him.

DR. REIK: We must not lose sight of the fact that under this proposition the profession is abandoning to a large extent its age-old charity service. This subject was discussed recently in New Jersey that point was mentioned in only one county and it was decided that the physicians would take care of all such charity work but would not accept fees for their services.

DR. LAWRENCE: Look at the embarrassing situation. Suppose realtors said that they would not charge rent at the present time; suppose the clothing stores would say the same thing? Would a man then, after he had accepted those services several times, ever regain his respectability? Why should not physicians be exactly as consistent as others?

DR. MORRISON: We have several instances in which persons have been under the relief fund, and after their husbands secured work they have come and offered to pay for the relief given.

DR. REIK: But those are a few instances out of thousands.

CHARLES FALKOWSKY, JR. (Scranton, Pa.): How is the respectability of these citizens judged?

DR. LAWRENCE: The persons in charge of the welfare work are responsible for all these things. It is they who determine whether persons shall have assistance or not. That brings me to another point.

In our state if a person is in need of medical service and cannot pay for it, he may apply to the physician residing nearby and the physician may render that service, or he may ask the welfare officer to authorize the service that he renders in order that he may be sure to get his pay, but the welfare people see that the proper procedure is taken, that the prospective patient makes application to the welfare officer for medical service just as it applies that authorization for food and clothing. The patient then really becomes a ward of the

welfare officer and he was elected to take care of these persons, not the physician. The welfare officer employs the physician.

DR. HAMILL: What fee is the physician paid?

DR. LAWRENCE: On the basis of 2 to 1. They get a regular fee or two-thirds of it. That is a county affair, however, every county setting its own provisions. It is usually \$2 for a house call and \$1 for an office call in most counties. In other counties they are charging the regular fees. Mileage is in addition to that and mileage is being paid if the physician makes application for it.

DR. DONALDSON: We should have a brief statement from the Pennsylvania group on this subject and I will take the liberty of making it. Our Board of Trustees has taken the position from the very first that all our members would gladly take care of those who had formerly been their patients, on any deferred payment plan, or any other plan satisfactory to both of them. We have also requested all members of the county societies to render all the aid they are called upon to give by emergency relief cards, distinguishing from aid that should be rendered and could be reasonably expected to be rendered by physicians who are paid a salary. We have made no effort, but in fact have resisted pressure from some societies to proceed with the plan that has been adopted recently in New Jersey. Your plan cannot be adopted in Pennsylvania because we have no State laws to permit it. It will be very interesting to see how long it will be before we in Pennsylvania must do as you have done in New Jersey, or to see if the matter will adjust itself in another way and we may stand in a different light to the state from what you do when this is all over. We have had editorial comments recommending that monuments be erected to physicians of the State for their work during this emergency. It makes an interesting situation.

EDGAR S. BUYERS (Norristown, Pa.): One point was brought up which we should distinguish from other things. There are certain counties in Pennsylvania that employ physicians to the poor at a given salary. They discriminate between the county indigent and the temporarily unemployed. The county indigent are taken care of by the Poor Board and the poor doctors under contract. The doctors will have nothing to do with the temporarily unemployed as they are not paid for that work at all, but they do take care of the indigent. The temporarily unemployed are cared for by the R. F. C. and by the physicians of the county society. There is quite some dissension there between the county doctors and the R. F. C. in selecting these cases. They are bound to run into each other at certain points.

The head of the R. F. C. in Montgomery County, who is a judge, has laid down a definition drawing the line between the county indigent and the temporarily unemployed. On the basis of that opinion we have disseminated our work between the 2 groups of those entitled to medical care.

I should like to ask what is the difference between the T. E. R. and the R. F. C.? Dr. Lawrence has said that some of the money is federal money. That must come from the R. F. C. Can that federal money be used to pay physicians?

DR. LAWRENCE: I presume so. I think the T. E. R. is a local affair but I know it is using federal funds to a certain extent.

DR. FALKOWSKY: I know that is true in Pennsylvania.

DR. HAMILL: Is the rest appropriated by the State?

DR. FALKOWSKY: Yes. It comes from the R. F. C. through the Emergency Relief.

DR. MORRISON: The state government in New Jersey is carrying our temporary relief control.

DR. BUYERS: Dr. Hamill divided the children into three classes, those that were able to pay full fees, those able to pay partial fees, and the indigent.

DR. HAMILL: That is correct. We considered the advisability of preparing a statement, to be given out by the State Society, somewhat similar to the one that was prepared for the toxin-antitoxin campaign in New York State. You will remember the card that was issued to physicians dealing with the subject of health examination, advising physicians to recommend to their patients health examinations for those who could afford to pay. I should like to get a reaction from this group to that suggestion because we have hesitated to proceed with it. It was endorsed by the county medical societies and by the Health Department in New York.

DR. LAWRENCE: The state used a card for the toxin-antitoxin campaign, but for examination of pre-school children or children entering school for the first time they have used cards in New York City for that purpose. The doctors have had the cards in their offices and have put them where they would be observed effectively by the family.

DR. HAMILL: We are already getting reactions from persons who can afford to pay, asking for health examinations.

DR. FALKOWSKY: That will inspire a good many persons who can afford to pay to have this work done and therefore the doctor will be repaid eventually.

DR. LAWRENCE: There is a fly in the ointment in our state, and that is the physician may not be conscientious in making his examinations. Our Public Relations Committee sent out a letter this last year to all school examiners and school physicians generally urging that they take a greater interest in examining school children. We tried to emphasize the advantage to the physician, in doing this work conscientiously, in developing a future patient for annual examinations. There are some physicians who will say to the patient, "I have known you all along. I have something else on hand just at present. Come back some other time. You are all right." They do the same thing with these children oftentimes. Our school authorities have a blank which is quite large. The New York school authorities have a smaller blank with about 10 questions on it. The question is which one will give the better service. I am watching our physicians up-state to see whether they are going to take the time to fill this blank out.

DR. HAMILL: We have endeavored to indicate on the blank the things to be looked for with the idea that the volunteer assistants can simply fill in quickly by dictation. As a matter of fact it takes just 15 minutes to fill out the blank, provided the physician has an assistant, the volunteer aid filling in the first part and the brief history. On the reverse side of the sheet is space for a special nutrition examination, which includes the height and weight, and which the volunteer aid fills in. The remainder is filled in according to the dictation of the physician and does not take very much time.

One object we had in formulating this kind of an outline was to make it educational because we believe that the future of medical practice should be among those who want to be kept in health, and we have tried

to indicate what would be a minimal health examination. That is enough information upon which to pass a statement as to the status of the health of a child.

DR. LAWRENCE: I heartily subscribe to that educational feature.

Review of Report of the Committee on Survey of Medical Services and Health Agencies to the House of Delegates, Michigan State Medical Society

WALTER F. DONALDSON, PITTSBURGH

In the excellence of the recently published report of the Committee on Survey of Medical Services and Health Agencies in the State of Michigan, as conducted by our sister State Medical Society—Michigan—I find my justification for the presentation to you today of this all too brief and inadequate review. The Michigan State Medical Society displayed wisdom, when, in connection with this elaborate piece of work, it recognized the axiom that the solution of a problem must be preceded by a clear understanding of the nature of the problem. We also extol the sagacity and enterprise of this State Society in undertaking its prolonged and expensive study, through a committee of its members, guided by that expert student of social evolution as applied to health problems in Europe and America, Nathan Siani, Doctor of Public Health, of Ann Arbor, Michigan.

Before proceeding to phases of the study peculiar to the State of Michigan, the Report devotes several pages to a consideration of the evolution of medical care; and while this reviewer will quote but little from this chapter, he recommends it to careful students because it embodies in a series of terse statements and graphic charts not only its own observations but those of four widely recognized, recently published studies on modern economic society and its relation to medicine. The first chapter describes recent developments in medicine as "explosive in character," appearing "as a revolution within a revolution; the reverberations of the medical revolution" being "muffled by the louder rumblings in industry." A profound effect is said to have been exerted both on the training and the practice of the physician by the impulse of research said to be equal to the motivating impulse in industrial development described as mechanical horse power.

Reference is also made to a situation in medicine, analogous to technological unemployment in industry, this form of unemployment, or lessened employment, being said to have its origin in the advances of science. Michigan is presenting typical examples of this form of unemployment in medicine by its marvelous reduction in combined deaths from typhoid fever, diphtheria, tuberculosis, diarrhea, and enteritis. Pointing out that had the death rate from the aforesaid in 1900 persisted in 1931, the total number of deaths from same would have been, in round numbers, 27,000 instead of 8500. The reduction in the number of cases that would have been treated by physicians in 1931, had the conditions of 1900 persisted, being expressed in the figures of 37,000 as against 8000. Describing this decrease as "one of the most amazing and probably the most gratifying of the results attained by modern medicine," the Report asks the question: "What new forms of employment are to be developed?" and proceeds to demonstrate that "the day is as yet far distant when the frontiers in medicine will be a thing of the past." Stating that "the right of progress in the three aspects of medical care—research, education, and practice—have not been devoid of conflict," which now resolves itself into action "between

those who say 'Let well enough alone,' and those to whom 'well enough' is not good enough, the Report classifies this struggle as one 'between imagination and established habit.'"

Concluding that innovations and progress are not synonymous; that medical practice can no more maintain the *status quo* than any other movement in human affairs; and that attempt at such maintenance is a "symptom of rigidity" and a "sign of decadence"; and recognizing the impossibility of an immediate and complete solution of all medical problems, the Report then proceeds in detail to take the first steps toward settlement of such problems which, though complicated by a delay of half a century, offers the greatest reward in planning for the immediate future.

In succeeding chapters the problems within the State of Michigan are taken up from the following angles: "Geographic variations, population distributions, incomes and costs of living, distribution of medical services and allocations of expenditures for these services."

The one outstanding physical characteristic of the State of Michigan is that it is almost entirely surrounded by inland water, which of course affects peculiarly its own climate, economic and social interests. Furthermore, on account of its double peninsular form, it lacks the sectional unity usually found in more compact areas.

The Report, pointing out that "this handicap is offset by the extent of its shoreline contact with many sections having various natural resources, and from which the State receives industrial stimulus," compares Michigan in this respect with England, an area of about the same size. In common with our own States—New York, New Jersey, and Pennsylvania—Michigan has its "fruit belt," its farming areas where, in contrast with countries in Europe and the Orient, much profitable land is either uncultivated or worked far below its capacity, crops being raised haphazardly by necessity, rather than most effectively.

Furthermore, Michigan has had its lumbering industry, now in the not uncommon second stage of operating here and there where small areas remain standing after the first cut. Certain industries associated with the forests and dependent upon them are dying "with the removal of the timber." The furniture industry is no longer dependent upon Michigan products, and imports are replacing native woods for the paper pulp mills. Michigan's "mineral resources, which are all nationally significant—iron and copper—will for years to come furnish irregular occupation to many citizens who will also stabilize the population as part-time farmers."

"Detroit, the largest city in Michigan, naturally leads the state in the variety and number of its industries," and its population, like the population of all cities of a million or more, will find its greatest difficulty in economic readjustment, including that of the proper distribution of sickness service to individuals and families struggling for a "larger share of security and satisfaction in life."

In a chapter devoted to "Population, Income, and Costs of Living," attention is centered upon such as relate to the people of Michigan alone. After stating that "the position of medical care in the scheme of living is anomalous" because occurring, as it does, as a basic need along with food, shelter, *etc.*, the Report states it is so rarely a daily need that its "cost must be met *after* the other daily basic needs have been provided." This reviewer takes issue with the Report in its apparent rigidity of expression on this point, which he interprets as practically shutting off further discussion of the consideration by those frequently thought of as self-support-

ing, as to the consideration of any provision in advance for meeting the inevitable items of sickness prevention, or the always threatening expenditures incident to sickness or injury.

Chapter 4, under the heading "Illness, Its Incidence, Care, and Costs," is abstracted from publication No. 26 of the Committee on the Costs of Medical Care, and is, therefore, not peculiar to the people of Michigan, and is no doubt familiar to many of you.

Chapter 5, "Physicians: Distribution and Practice," once again returns to the State limits, and throughout places particular emphasis "upon the distribution of physicians in private practice." Questionnaires were mailed to all physicians thus listed by the Committee on Public Relations of the various county medical societies, with the exception of Wayne County, in which the City of Detroit is located and where a questionnaire was mailed to every second name on the list. The schedules were to be returned unsigned, but each recipient of a questionnaire also received a post card, which he was asked to return, stating that his schedule had been mailed. "While the card did not identify any particular schedule of questions, it made possible an analysis of the returns and a follow-up program to secure more complete returns." By follow-up activities on the part of the local committees, the schedule returns reached a volume approximating 50 per cent, ample to merit an analysis.

Discarding the commonplace "optimum ratio" of physicians to population, the Report discusses variables of both factors, the first being the training of the physician, pointing out that a single physician in a rural area or a smaller community may not be trained to render all the necessary medical services to a group of people. "The existence of many such areas and communities in Michigan emphasizes the dangers of broad generalizations in either the statement or the solution of medical economic problems."

"Another variable factor of major character is the ability of people to purchase whatever they recognize as necessary medical care. It is this 'effective demand' that determines whether or not the physician may derive a satisfactory livelihood from the practice of medicine."

"A third item that must be given attention is the need, rather than the effective demand, of the population for medical services."

During the 31 years reviewed, it is shown that while the population of the State has more than doubled, the number of physicians has increased only about 25 per cent. Compared with 1900, there were approximately 300 more people per physician in Michigan during 1931. Possibly an explanation may be found in a great increase of both population and physicians in the City of Detroit, although the ratio between population and physician here has increased from 427 in 1900 to 773 in 1931. From 1910 to 1920, while Wayne County (in which Detroit is located) was gaining 575 physicians, the rest of the State lost 596.

The Report does not present the figures "interpreted as the beginning of a definite movement of physicians toward the smaller communities." On the contrary, "changes in the number of physicians in Alpena and Mecosta, up-State counties, with a reduction of 50 per cent in number, may be contrasted with an increase of 138 per cent in Oakland County, in which the City of Pontiac, a well-known automobile manufacturing center, is located.

The Report in part neutralizes the effect of such changes by the usual references to the ability, on account of improved modes of transportation, of the physician to serve much larger geographic areas.

Excluding from its estimates of physicians employed on a full-time basis, those retired, and those serving internships, and including all areas of the state, it is discovered that the "average population per physician in private practice, exclusive of Wayne County, is 1050; while that of Wayne County is 908." Table 26 of the Report discloses the following rather significant fact: Wayne County, occupying less than 1 per cent of the geographic area of the state but having 40 per cent of the population of the state, nevertheless has more than 50 per cent of the state's total number of physicians.

Surely these figures indicate the considerable portion of the population of the City of Detroit who must be receiving their medical service under some form of contract practice.

Referring to the figures published by the Commission on Medical Education, based on the ratio of 1200 persons per physician, many counties in Michigan have more than 1200 persons per physician, and certain others have less. In assuming that this standard is based upon the *effective demand* of the people for medical care, the Michigan Report refers to other studies, in which it is set forth that to meet the *actual needs* of the population, it would require one physician to approximately 700 people, pointing out that on this basis there are too few physicians in private practice in every county in Michigan, except the county in which is located the State University.

It is evident, therefore, that oversupply or undersupply depends upon the standard adopted, and we must agree with this committee when it states, "The problem before the profession is to devise means whereby the provision of medical care may more closely approach the actual needs of the people," and also agree that "it will be a long time *before the public itself recognizes* all the fundamental needs; yet it is maintained that even now, through better distribution of service, a ratio of one physician to 900 people would not be unreasonable. Using this ratio as a unit of measurement, many counties now present distinct problems of undersupply. In nearly all others the aim should be to *increase the use of the physician's time* devoted to medical practice, rather than *to hope for a decrease* in the number of physicians."

The Committee discovered that in different parts of the state, physicians have contractual relations, exclusive of insurance employment, differing from 10 per cent of the total number of physicians in the City of Detroit to 27 per cent in other areas. Their findings show that few physicians in Michigan are making annual physical or health examinations, in spite of the great publicity given to the project; and as further proof that the *public is not purchasing* preventive medical services, whatever may be the cause or causes, refer to the fact that "out of 100 physicians who had attended 100 births, only 4 reported a total of 4 diphtheria immunizations at the end of a year."

The Committee, in its analysis of the schedules returned by private practitioners regarding postgraduate education, consider "the figures disturbing, particularly as they concern the general practitioner. In none of the groups shown in the most populous part of the state do as many as 50 per cent of these physicians report postgraduate study within the 10-year period. From 65 to 86 per cent of the 'partial specialists' report postgraduate study."

In a chapter devoted to "Physicians' Income," an attempt is made to correct errors arising from incomplete returns, and "1289 physicians submitted schedules which carried sufficient information about income to merit analysis." By a method of "weighting," according to

type of practice, the costs of physicians' services during 1931 are presented for the state and the different areas in the state. Furthermore, each local subcommittee was asked to estimate within very broad income classes the probable incomes of physicians who failed to reply.

During 1931 the people of Michigan expended a total of \$31,000,000 for the services of 4725 physicians in private practice; per-capita expenditure for physicians' services amounted to \$6.27; in one area the average was \$4.22; in another, \$7.20. Of this total, 3047 general practitioners received \$16,400,000; 906 partial specialists, \$7,231,000; 772 complete specialists, \$7,510,000. The average gross income of the physician in private practice is \$6590.

"Although the total gross expenditures for the state and the gross incomes of physicians show the amount of money spent by the public, it is the net income which primarily interests the physicians. It is this income that determines what amount of money the physician may expend for the needs and comforts of his family and for security during his old age. The average net income for all physicians is \$3876. This amount is 59 per cent of the gross income. Hence, the average expense of practice is 41 per cent of the gross income. According to the median figures, the net incomes of one-half of all physicians in private practice are below \$3264, and one-half are above this sum."

"One might say that an average annual cost to the family of \$108.14 for medical care is evidence that no particular economic problem exists in the distribution of medical care. One might say with equal assurance that an average net income, in 1931, of almost \$3900 per physician is evidence that the economic problems of physicians are largely imaginary. Chapter IV brought out the fact that the statement concerning families would not hold when submitted to a detailed and critical analysis. The same is true of the statement concerning the income of the physician. Most of the controversy that arises from these statements takes its source from a lack of understanding, appreciation, and willingness to give thought to anything but the gross picture of both costs and incomes."

"In Chapter III it was shown that 92 per cent of the population divided 65 per cent of the state's income. While this disproportion is found to no such extent in medicine, the figures for partial and complete specialists show that it exists."

"The lack of uniformity in physicians' incomes apparently arises from the 2 main causes, aside from those that may operate in the practice of an individual physician. These causes are: First, type of practice; and, second, size of community."

"Few will disagree that a physician's income below \$2500 falls short of adequacy. Based upon this arbitrary dividing line, the results shown in Table 42 serve to emphasize the crisis in medicine. Two thousand seven, or 43 per cent of the 4725 physicians in Michigan are required to maintain their standard of living on incomes of less than \$2500."

"Almost one-half of the physicians in each type of practice are classed among those with adequate income."

"Undoubtedly many who read this report will conclude that this view of medical incomes is a distorted one. Who can say? There can be little doubt that incomes during 1932 were reduced still further, and that the downward curve is being extended through 1933. To say that incomes will return to the level of 1929 would be to make a brave, if not foolish, statement."

"Economically, the average practicing physician's position is not an enviable one. He enters private practice

after a large outlay of capital funds at the age of 27 or 28; he must make a further outlay for costly equipment; and he must expect to spend 7 or 8 years in gaining the confidence of the community to the end that he may apply himself to practice for a reasonable portion of his time. The wonder is that so few physicians put aside the high code of professional ethics, and collapse under the economic pressure that so many suffer."

Passing from this very helpful and intelligent study of physicians' incomes to that of hospitals in the State of Michigan, we learn that hospitalization is there "very largely a governmental function, beds being government-owned to the extent of 54 per cent of even the general hospitals." The Report attempts to decide the question, "Does a person living within 10 miles of a hospital enjoy hospital facilities?" And proves that nearly all the people live within 20 miles of such service; the question is asked also, "Should the same weight be given to the influence of a 100-bed hospital as to a 10-bed hospital?" Of the 83 counties in the State of Michigan, 74 are below the state average for the number of hospital beds per person, which is one bed per 240 persons. And as is no doubt true in many other states, it is discovered "that certain areas are provided with more beds than necessary," while "in other areas the number is entirely inadequate," indicating, so the Report states, "strongly the need for original planning in the original location and development of hospitals."

Exclusive of fixed charges, "the average cost per patient per day in 1931 for the state was \$5.35." We will not discuss the problem presented to the physicians of Michigan by the "University of Michigan Hospital," except to say that being a teaching institution, with approximately 1183 beds, there has been at varying times much dissatisfaction on the part of private practitioners because of the treatment in the hospital by physicians, employed full-time as teachers, of patients coming from widely scattered points in the state, who are believed by private practitioners to be able to pay private physicians.

The objection raised by the State Medical Society to the present relations of the faculty are "classified simply into 3 groups: (1) Lack of consideration for the outside physician; (2) direct financial competition; and, (3) fear of state medicine."

The Chapter devoted to "Public Health" begins with this sentence: "Civilization may be measured by the endeavors of man to conserve intangible wealth"; later stating, "While a century ago health was almost purely in the class of intangible wealth, today only the most backward individual or the socially retarded community would so regard it." The Report then calls attention to the generosity with which education and highway construction are supported in comparison with public health. Total appropriations by the State of Michigan to its Department of Health were \$444,000 in 1924; in 1932, \$456,000; while in 1915 the appropriation amounted to \$32,000. The State Department is credited by the Report with placing "the emphasis upon activities leading to local organizations."

Michigan has a state law permitting the inhabitants of any township, by vote of its qualified electors, to grant money for the purpose of employing a public nurse or nurses for said township; but the Report, after reciting certain "fundamentals of public health work," points to "how woefully inadequate is the work in townships and villages." The Report refers to arrangements in Wexford County whereby "a county board of supervisors pay a flat charge of \$10 to local physicians for tonsillectomies, including a 24-hour period of hospitaliza-

tion." There is also an arrangement with the local oculist to examine and provide glasses for children at a profit of \$1 to the oculist. (What a contrast to the dignified professional standing of a true ophthalmologist.)

Without any attempt to discuss the various bureaus and their activities, except to agree with the Report of the Committee that the State of Michigan apparently presents the not uncommon state of affairs of "a striking multiplication of health officers and health organizations, which can mean only a diffusion of power and dilution of responsibility, and a loss to the state through failure to realize the full benefits of modern science," we proceed to the chapter of Miscellaneous Reports governing free clinics of various types and fixing for the City of Detroit, during the years 1931 and 1932, as "the average annual cost per patient, regardless of the professional visits made during the year, and including all types of service rendered, \$5.76 and \$6.59 respectively."

Pointing out that "these patients undoubtedly did receive services from other clinics, private practitioners, etc., and that the above figures would be increased," the Report adds the usual reference to the fact that "the figures on costs do not include any capital charges or remuneration to physicians." On the basis of \$1 as the physician's contribution to the community for each visit made to them by patients in the clinics, \$500,000 in free medical service was contributed during the year 1931 in the City of Detroit. This does not include services rendered to clinic patients confined in hospitals during that same year. "In 1931, approximately 18 per cent of the population of Greater Detroit City sought medical aid in all the Detroit free and part-pay clinics."

The Report then deals with the Cancer Problem, Laboratories, the Medical Care of Negroes, the Problem of Tuberculosis, devoting a brief discussion to the Family Physician and the Control of Tuberculosis, which problem, the Report recommends, may be handled successfully only by "group plan headed by the organized medical profession, and a health agency provided with adequate financial support and personnel, with well-trained nurse-educators and public health teachers."

Under the subheading, "Care of the Indigent," there is a series of "arrangements for the care of the indigent, as reported to the Committee by various county medical societies." While there seem to be proportionately more of such reports than could be obtained from the county medical societies in Pennsylvania, and possibly from New Jersey, we note that the paragraph concludes with the following words: "In but few counties has the subject been approached in any other than a hit or miss manner."

Furthermore, the Report states: "If the foregoing material concerning the care of indigents points to anything it is the need for much study concerning costs and a centralization of data so that they may be made available to all counties. It is apparent that there is less coördination of effort in the solution of this problem than any other in medical care. Antagonistic forces, bargaining, and like influences operate in the majority of counties to provide a service which is unsatisfactory both to the profession and the recipients."

In most of the 25 counties in Michigan from which reports were received, we note that county medical societies operating under a state law which permits contractual relations between groups of physicians and political subdivisions, smaller than county units, are endeavoring to develop this type of group service to the indigent, to be paid for through Poor Commissioners, etc., which is in sharp contrast to the policy of the New

York State Medical Society, which is endeavoring to discourage the development of such contracts for the care of the indigent sick, believing, as Secretary Lawrence recently stated in a letter to this reviewer, "The public would be better served if the work were done and paid for by case and call, rather than by contract."

In Chapter II, the Report is summarized and we note several paragraphs devoted to "Income: The Consumers of Medical Care," dividing the total population of Michigan—in 1929, 4,400,000—into 1,800,000 families and 76,000 unattached individuals as units—recipients of medical care—setting up as an intelligent basis of expenditures the following items in order of their importance: food, clothing, fuel, shelter, medical care, education, insurance, additional comforts, and then luxuries. The Report suggests that in the year 1929 the income of the people of Michigan having amounted to over \$2600 per family of four, "this study could have been brought to a close at this point, with the conclusion that this sum is ample to provide subsistence, security and certain comforts." "This, however," it adds, "is the mass picture, and medical care is not being purchased on a mass basis. The needs are experienced and the purchases are made by individual families. Thirty-five per cent of the income was received by 8 per cent of the population; therefore, the main interest centers about the 92 per cent receiving the remainder."

Pointing out that while "in certain areas medical care must compete with insurance, transportation and other elementary requirements of the average family in 1929, the general income throughout the state was reduced 46 per cent in 1931, with a decrease of only 17 per cent in the costs of living the Report proceeds to classify "as the most significant part of this study—*comparison* of the services received *and* the true needs for medical care," emphasizing that the "problem of medical costs arises not through the fault of the public or physicians, but exists because of the *variable* nature of illness."

The Report again takes the position that "medical care, with the exception of certain preventive services, is not a budgetable item," reminds us that "many of the minor problems relating to the distribution of medical service have their origin in major problems and their causes"; and, "having the factual data as a whole," the summary concludes that "the major problems and programs facing the profession in Michigan are as follows:

"(1) Continued study and preparation for meeting the immediate needs in the distribution of *medical service*."

"(2) The distribution of the burden of costs to the end that adequate medical care may be provided for all of the people."

"(3) A more equitable arrangement for the care of the indigent sick."

"(4) The need for better distribution of medical facilities in the sparsely settled rural areas."

"(5) Wider distribution and a better coördination of public health activities."

Chapter 12 devoted to "Conclusions and Recommendations," describes as "a hopeful sign for the future the growing interest of the medical profession in economic problems," and classifies the entire Report with its data presented as "a contribution of the Michigan State Medical Society to public welfare." The Committee recommends that the House of Delegates appoint a standing Committee on Medical Economics, with broad powers to appoint subcommittees, and that each county medical society appoint a committee on medical economics, supplanting the present committee on public relations.

After discussing principles of health insurance as it applies to the public and to the medical profession, the Report of the Committee reflects a position taken previously by the Director of its studies, and recommends that the House of Delegates approve the principle of health insurance, based upon the following policies:

- (a) Free choice of physician by the insured.
- (b) The limitation of benefits to those of medical service.
- (c) The control of medical service benefits by the profession.
- (d) The exclusion of individuals or organizations that might engage in health insurance for profit.

Having thus disposed of sickness service to "workers of low average income who are unable to predict the time, severity or effects of serious illness," the Report makes recommendations regarding Medical Care of Indigents, epitomized by the reviewer as follows:

- (1) Such care to be the joint responsibility of the community and the medical profession.
- (2) Costs of medical care to be met through contributions of funds by the community and partial contribution of services by the profession.
- (3) Compensation to physicians to be from community funds in proportion to the amount of service rendered.
- (4) The community to centralize in one agency the social and economic appraisal of the individuals' or families' right to such medical service.
- (5) Local committees on medical economics, as well as the State Society Committee, to study and develop plans in accordance with the above.

Pointing out that it would "obviously be fool-hardy for a physician to locate in certain parts of Michigan and expect adequate financial support from private practice alone," the Committee recommends to the House of Delegates approval of "the principle of subvention, through state or local funds, to assure reasonable and adequate medical care for citizens, and reasonable and adequate income and facilities for medical personnel."

Under "Public Health," the Committee recommends that every physician now theoretically so classified, should become in fact a public health official, recommending that the activities of "public health agencies should be concentrated upon *education* in two directions: First, of the medical profession to the end that it will be better able to provide the public's preventive medical needs; and, second, education to the public to the end that it will seek preventive medical services." The Committee feels that this question is at this time secondary to items previously presented.

The final paragraphs read as follows: "The committee wishes to record its knowledge that the foregoing conclusions and recommendations constitute only the first steps towards the solution of medical problems. It feels that the Report has accomplished two things: First, a clarification of the problems in Michigan and, second, a declaration of certain broad principles upon which to build the future structure of medical service. If there is agreement among the members of the profession that these principles are sound, future progress should be rapid and effective.

"To paraphrase Salter,* the committee has taken the system it knows, suggesting how it might be strengthened where it is weak, repaired where it has crumbled,

and rebuilt where new needs require additions to its fabric. 'It is our own system in which we have grown up that we must reform—and in part transform.'"

The reviewer, expressing again his great admiration for the enterprise of the Michigan State Medical Society in this pioneering endeavor, also appreciation of the intelligence of its scope and application, awaits with interest the reaction of the Michigan House of Delegates to the Committee's Report to be considered in special session in July. It is to be expected that debate will be earnest, introducing promptly emphasis on the paramount need for maintenance of good quality in sickness service, whether service be rendered in the grab-bag fashion peculiar to "lodge" medical practice, or in the more dignified relations obtaining under genuine private practice.

We believe that *now* is the time to discuss completely the truth as to the working interest of the general public in sickness prevention or service—infinitesimal in our opinion, except when illness or injury is imminent or, if established, has become catastrophic. Now is the time also to declare frankly the trivial methods by which service is frequently delivered under European health insurance plans, before adoption by the states of this form of social legislation under the usual promising but almost totally misunderstood enthusiasm for a sociologic principle, which in its application often disappoints all but those whose satisfaction usually lies only in successfully promoting a particular type of social legislation.

With the clarifying influence of comments from representative physicians from all over the state, we are confident further study of Michigan's problem will proceed steadily toward a solution that will meet the entire state's actual sickness needs, and at the same time provide stimulating employment, with economic comfort, for the *able* and the *industrious* physicians of any section of the state.

Luncheon was served at 1:30 p. m.

DR. REIK: I have received a letter from Dr. Daugherty, secretary of the Medical Society of New York, in which he said that the Executive Committee of that State Society recently had voted to withdraw from the Tristate Medical Conference.

I should hate to see the Conference be discontinued. It has been quite highly beneficial to us in New Jersey. The fact that our members have been individually apprised of what has happened has made it possible that when any situation has arisen that item goes through the budget committee quicker than anything else. I should like to suggest, if it seems desirable, we simply express regret that the New York State Society has so acted and the hope that sometime in the future they may feel inclined again to become affiliated with the Conference, and that pending such time New Jersey and Pennsylvania continue to hold these Conferences. Instead of 3 per year, we might perhaps have 2 or if that is not essential, only one a year, so that at any rate we may maintain the Conference and hope that in time New York will feel the necessity of again coming into it. I offer that as my personal suggestion.

DR. GUTHRIE: I make a motion that Pennsylvania and New Jersey continue with this Conference and that the door be left open for New York State to return at any future time that they may deem it fit.

This motion was seconded by DR. MORGAN, who said: It is difficult to express appreciation of the activities of this Conference as found in my travels in

* Salter, Sir Arthur: *Recovery, the Second Effort*, The Century Co., New York, 1932, p. 334.

connection with county society meetings. All our topics are discussed in full as published in the JOURNAL and are read by the doctors very thoroughly. They frequently refer to the matters that we have discussed at our meetings. Representing as we do 25 per cent of the population of America and 24 per cent of the physicians, it would be a great pity if we ceased these conferences. Dr. Olin West told me that with all the material coming to his desk every week, he never failed to read every word of this Conference. The outside is watching us.

The motion was duly carried.

DR. MORGAN: I move that all former, present, or future officials of the State Medical Society of New York shall be extended a standing invitation to attend our sessions at any time they may find it convenient to do so.

This was duly carried.

DR. GUTHRIE: I move that the resignation of New York from the Conference be accepted with regret. Carried.

DR. REIK: The next session of this Conference would be due in the autumn, probably in the early part of November, to be held in the State of New Jersey and I am taking the liberty of extending an invitation to meet with New Jersey as the host on that occasion. Accepted.

DR. REIK: I should like to ask what specific action, if any, has been taken in the states of New York and Pennsylvania with reference to that much discussed final report of the Committee on the Costs of Medical Care? I saw a paragraph of resolutions that were up for consideration which seemed rather evasive. I have not been actually informed as to what happened in Pennsylvania.

DR. FALKOWSKY: The only thing is that we approved 100 per cent the Minority Report. We sent letters to all the various scientific societies requesting them to defer action until such time as the real channels of medical organization were represented to the county societies and the American Medical Association would act upon it. We have had many volunteer workers and I think this has done more to popularize the Minority Report than anything else.

DR. REIK: I have taken occasion to thank Dr. Donaldson personally for the question and answer method of discussing the Committee Report and the resolutions that accompanied it were good.

DR. LAWRENCE: We are with the Minority Report and specifically have shown why the report was not acceptable.

DR. MORGAN: At the recent meeting of the A. M. A. the House of Delegates adopted the Minority Report as the official opinion of the A. M. A.

DR. REIK: In New Jersey it was in most places submitted to a special committee for consideration. The same sort of a situation arose as occurred nationally; we had at the annual meeting a majority and a minority report submitted. The matter was referred to a business committee for consideration and they reported back that they had not time to study it. Perhaps Dr. Morrison would like to finish the discussion of this subject.

DR. MORRISON: The Committee realized that they did not have time to give a matter of that scope proper consideration and they reported that it will be amplified next year.

Adjournment at 2:30 p. m.

IMMUNIZATION AGAINST SCARLET FEVER

The Department of Public Health of Philadelphia is convinced of the efficacy of immunization against scarlet fever by the use of Dick toxin in the exact manner and method of procedure as directed by Drs. George F. Dick and Gladys Dick.

This opinion is based upon vast experience of the Dicks, and by that of many other investigators in many lands throughout the world. The experience of the Division of Child Hygiene of this department further strengthens their views as to the efficacy and specificity of the preventive treatment.

Conflicting reports exist in the literature as to the value of immunization against scarlet fever, stress being placed on the reactions caused by the use of the immunizing products.

The Health Department has completely analyzed the reports issued all over the world. It was found that the unfavorable reports have come from physicians who did not adhere strictly to the method of procedure outlined by the Dicks. It is only natural to expect differences of opinion with the introduction of a so important method of prevention.

All efforts are being made to eliminate the errors made in the production of preventives which are now available in the prevention of other diseases. All objections to the use of Dick toxin are taken in a serious light and serve their purpose in bringing about the manufacture of a product which will be free from objectionable features. The principles underlying the whole matter of scarlet fever prevention are nevertheless sound and based upon scientific truth.

The permanence of the immunization should be no serious drawback to a carefully planned organization of immunization among groups where careful statistics may be kept and where unbiased conclusions may be drawn.

The Dicks state that immunization lasts 5 or more years. The whole subject of immunization is so new that it is impossible at this time to state how permanent will be security by immunization. The fact remains that scarlet fever is most prevalent between the ages of 1 and 10 years, 73 per cent having occurred in this age group in 1932 in Philadelphia.

It appears self-evident that if the preschool child and the child in the early grades of school were immunized against scarlet fever, and presupposing that immunity only lasted 5 years, it would be sufficiently long to protect those in the 5-to-10-year-age group until they reached the age when scarlet fever is less prevalent and there is a greater immunity to the disease. Among younger children, presupposing that the immunity only lasted 5 years, it would protect these children sufficiently long to reduce the number of contacts and in this way break the force of the spread of the disease.

From a public health officer's standpoint, it is not essential that any preventive be so long in order to control a disease. We have hopes, however, that age of experience will prove, as it has in diphtheria, that the Dick method of scarlet fever immunization will be of sufficient permanence so as to eliminate the present menace of scarlet fever, at least to a point that it will no longer be a serious public health problem.—*Monthly Bulletin, Philadelphia Dept. Health.*

EDITORIALS

THE ANNUAL SESSION

A most successful Eighty-third Annual Session of our State Society, without doubt the peer of all the conventions, was held in Philadelphia, Oct. 2 to 5, when another milestone was placed in the aisle of time as a marker of continued activities and achievements. Such a convention as this is of great benefit to the public as well as the physician for it serves as a clearing house of medical experience. The physicians and their ladies are always glad when the time comes for the Convention, as it means "going places."

The high degree of constructive interest throughout the membership; harmony and co-operation for the advancement of the medical profession and for the promotion of public health, thorough, sound, and practical activities, characterized the spirit, purpose, and program of the meeting. Faithful adherence to proved fundamentals, the realization of the power and strength of coöperation and the futility of fatalistic spirit in undertaking contemplated activities, and a determination to anticipate and meet new problems and conditions, seemed to be the keynote of the addresses and the deliberations of the House of Delegates.

The attendance was most satisfactory, the registration recorded 2046 members, the highest yet attained: The total number of physicians including visiting physicians and interns was 2330. The previous highest registration of members was 1623, at the Pittsburgh session in 1932. The Woman's Auxiliary had a registration of 435. The grand total registered attendance was 2765.

The Philadelphia County Medical Society was indeed a generous host and too much praise cannot be bestowed for its hospitality. The local committees, under the general chairmanship of George C. Yeager, were tireless and effective, and their thoroughness was apparent in the many well-arranged details so necessary to the satisfactory conduct of a convention of such extent and importance. These remarks equally apply to the local committees of arrangements of the Philadelphia Woman's Auxiliary, under the general chairmanship of Mrs. W. Burrill Odenatt.

The opening meeting was called to order by President Charles Falkowsky, Jr., of Scranton. The invocation was given by Rev. Charles B. Dubell. The report of the Committee on Necrology was presented by Charles C. Ross, of Clar-

ion. An address of welcome was delivered by Honorable J. Hampton Moore, Mayor, City of Philadelphia. Mayor Moore admonished the physicians to descend from the "institutional band wagon," which is rolling down the road leading to socialization of medicine. He called upon the profession to take over its share of the burden of caring for the growing number of those dependent upon publicly supported institutions, and urged a return of the old-fashioned family doctor. An address of welcome was delivered by President Walter S. Cornell of the Philadelphia County Medical Society. Chairman Charles C. Wolferth presented the Scientific Program; Chairman Fred B. Weidman announced the Scientific Exhibit; and Chairman George C. Yeager announced the Entertainments. The retiring president, Charles Falkowsky, Jr., Scranton, was presented with a gavel in behalf of the Board of Trustees, by a past president, Ross V. Patterson. During his term as president, Dr. Falkowsky gave unstintingly, faithfully, and ably of his time and talents to the service of the profession and medical organization. President-elect Donald Guthrie, of Sayre, was installed as president and delivered the "President's Address." His theme was the need of carrying postgraduate instruction to the membership in every portion of the State, and pledged his every endeavor to this much needed activity. President Guthrie's address was published in the JOURNAL for October, 1933, and each member of the Society is urged to read it.

Dr. Guthrie is surgeon-in-chief of the Robert Packer Hospital, Sayre, and follows in the footsteps of his distinguished father, the late Dr. George W. Guthrie who was the fiftieth president of our State Society. One of the newspapers of Bradford County in extolling the virtues of Dr. Guthrie and the wonderful work he is doing at the Robert Packer Hospital with its Guthrie Clinic, refers to him as the "Spirit of the Packer," and considers him easily the "First Citizen" of their county.

Moses Behrend, Philadelphia, was installed as president-elect. Dr. Behrend is a past president of the Philadelphia County Medical Society and surgeon to the Jewish, Mt. Sinai, and Philadelphia General Hospitals. He has served for many years in the House of Delegates. Other officers elected were: Vice presidents, George C. Yeager, Philadelphia; Charles W. Eisenhower, York; W. Gilbert Tillman, Easton;

George B. Woods, Washington; secretary, Walter F. Donaldson, Pittsburgh (reelected for the fourteenth year); assistant-secretary, Henry G. Munson, Philadelphia; trustees and councilors, Clarence R. Phillips, Harrisburg, Fifth Councilor District (reelected for second term), and E. Roger Samuel, Mt. Carmel, Fourth Councilor District; delegates to the American Medical Association, J. Newton Hunsberger, Norristown; William H. Mayer, Pittsburgh; Frank P. Lytle, Birdsboro; Howard C. Frontz, Huntingdon; Charles G. Strickland, Erie; J. Allen Jackson, Danville; Walter F. Donaldson, Pittsburgh; J. Norman Henry, Philadelphia; Samuel P. Mengel, Wilkes-Barre; and Arthur C. Morgan, Philadelphia. In addition there were elected 10 alternates-designate and 10 alternates-at-large.

At the reorganization meeting of the Board of Trustees, held Oct. 5, Edgar S. Buyers, Norristown, was reelected chairman; Augustus S. Kech, Altoona, was reelected clerk; and Frank C. Hammond, Philadelphia, was reelected Editor of the JOURNAL.

The Woman's Auxiliary held its annual session: President-elect Mrs. Edward Lyon of Williamsport was installed as president, and Mrs. Larry D. Sargent, of Washington, is president-elect. Other officers were elected.

The chief social function of the session was the president's reception which was very well attended, and the floor was crowded with dancers throughout the evening. A committee from the Philadelphia Auxiliary was most gracious in its solicitude to see that beaux and belles were provided with dancing partners.

It was a delightful privilege to have President Dean DeWitt Lewis, of the American Medical Association, as the guest of honor. President Lewis delivered an address before the General Meeting. At the luncheon tendered President Lewis by the Board of Trustees, one of the guests was George E. de Schweinitz, of Philadelphia, a past president of the American Medical Association.

The Committee on Scientific Program, under the general chairmanship of Charles C. Wolferth, of Philadelphia, is to be congratulated for the type of papers presented.

The technical exhibit was easily one of the best ever held, the sixty exhibitors having taken over the entire number of booths. Credit is due the State Society's office at Harrisburg for this accomplishment more especially under the existing business depression.

The proceedings of the House of Delegates graphically portrayed the effectiveness of harmony and constructive activity. Faithful serv-

ice by many committeemen, delegates, and members contribute to that official record of organization achievement.

The scientific exhibits and the motion picture program were outstanding and the best we ever had. Visualization is the keynote, hence these two features should be increasingly developed each year.

The public meeting also was the best that has ever been conducted. W. Burrill Odenatt, of Philadelphia, presided in his inimitable style. A sound picture, "Man versus Microbe," was shown. Musical selections by the Strawbridge and Clothier Chorus, garbed in colorful cap and gown, gave an academic atmosphere to their greatly enjoyed renditions. Walter S. Cornell, president of the Philadelphia County Medical Society, delivered a most gracious address of welcome. Editor Morris Fishbein, *Journal of the American Medical Association* and *Hygeia* delivered a most eloquent address on "Changes in Medical Practice," which made a very profound impression upon the lay audience, and was thoroughly appreciated by the medical group.

The women physicians of Pennsylvania were honored at a dinner given under the auspices of the Woman's Medical College of Pennsylvania, at the Bellvue-Stratford Hotel, Mrs. Sarah Logan Wister Starr, president of the College, presiding. Greetings were extended by Dean Martha Tracy of the College. Morris Fishbein delivered an address on "The Renaissance of the General Practitioner." Dr. Fishbein believes that an increase in the ratio of general practitioners and not state medicine is the answer to increased costs of medical care. He stated that in proposing measures for restoring the proper balance between specialists and general practitioners, there must be included, public education, equalization of the rewards and opportunities in the two fields, and limitation of the number of students entering the field of specialists by fixing high standards of competence. The medical profession must clean its own house, as it always has. There is no other power, legal or otherwise, to correct this condition.

William G. Leaman, Jr., cardiologist of the Woman's Medical College, gave the first official presentation of a motion picture film illustrating a new and vital method of teaching medical history.

Dr. Fishbein also addressed the Woman's Auxiliary. Like a true disciple of Aristotle, he was a peripatetic disseminator of intellectual pabulum.

The Philadelphia County Medical Society gave a dinner in honor of the officers of the State

Society in the auditorium of the County Society Building, which afforded a delightfully social evening. An illustrated lecture on the origination of medical practice was presented by James C. Muir, archeologist.

The Philadelphia County Medical Society and the Medical Club of Philadelphia gave a dinner and entertainment in honor of the members of the State Society at the Bellevue-Stratford Hotel, filling the ballroom to capacity. Instead of separate alumni dinners, tables were assigned at this dinner for the various alumni groups. The entertainment consisted of chamber music, classical and quasi-classical in character, affording a high grade program of instrumental and vocal renditions.

Sixty men played golf at the tournament of the State Medical Golf Association. The course at the Manufacturers' Club was in excellent condition, but the greens were fast and the scores averaged fairly high. You may recall the defy of the divot diggers from Pittsburgh, that they would tote home the mug again this year. Yeah! Donald Macfarlan, of Philadelphia, was the winner of the McKee Cup, emblematic of the individual 18-hole championship; the President's Cup for the low net score was won by Dennis R. Murdock, of Greensburg; S. Gilmore Pontius, of Lancaster, won the prize for the low score for 36 holes. The dinner which followed was an enjoyable affair. The speeches were informal. The following officers were elected: President, John W. Croskey, Philadelphia; vice president, James J. Waygood, Philadelphia; secretary and treasurer, Thomas L. McCullough, Pittsburgh; and historian, Paul B. Steele, Pittsburgh.

The Woman's Auxiliary had a very satisfactory business and social session. Dr. Fishbein complimented the auxiliary on the part it has played as a medium between the medical profession and all women's clubs in the campaign against the exploitation of unethical and injurious medical practices.

Withal the Eighty-third Annual Meeting was a pleasant and profitable occasion long to be remembered with pride by all those who contributed to its success by their participation and attendance.

The 1934 Convention will be held in Wilkes-Barre. Begin to make your plans now.

TRISTATE MEDICAL CONFERENCE

In this number of the JOURNAL will be found the report of the Tristate Medical Conference held at Philadelphia, June 24, 1933. President Charles Falkowsky, Jr., of The Medical Society of the State of Pennsylvania, was in the chair.

Our members are urged to read this report in *toto* as it is replete with matters pertaining to medical economics.

Especially to be noted is the Pennsylvania Emergency Child Health Program and the Review of the Report of the Committee on Survey of Medical Services and Health Agencies to the House of Delegates, Michigan State Medical Society.

REGISTER PROMPTLY

The State Board of Medical Education and Licensure has persistently been attempting to secure the publication annually of a list of those licensed to practice the healing art. This has been intermitted during the past two years by order of the administrative authorities in Harrisburg as an economic measure. An agreement has been reached by which this promises to be done in the future.

The next list to be published will appear about March 1, 1934. Obviously, only the names of those duly registered can be included in the list. Physicians whose names do not appear on the list will be presumed to be practicing illegally, and when pressed legally or morally will be compelled to defend themselves.

The Registration Act is not unlike the law which requires a driver's license in order to operate a motor vehicle legally. Any one who practices any form of the healing art after Jan. 1, 1934, without having secured the registration card does so illegally and is liable to prosecution in a similar manner as driving without a license.

When the list is printed the derelicts will become conspicuous by the absence of their names and can be apprehended readily. Each licensee, therefore, should respond to the call for registration immediately, lest he forget and unwittingly subject himself to subsequent procedures which might prove embarrassing.

CALL OF THE CHRISTMAS SEAL

The Christmas Seal this year goes back to medieval days to depict the yule log being dragged toward the manor house for the feast of Christmas. Happiness and cheer marked the season with baronial halls thronged with lords and ladies, jesters, acrobats, carol singers, and stewards. The festivities also extended to the serfs and any who were cold, hungry, or lonely were welcome to enter the hall.

Buy Christmas Seals



Fight Tuberculosis

Back of the design on the Seal is a picture of times that were difficult and precarious, and likewise a great advance to conditions of today.

In those days there were hard times all the time. There were no relief agencies. Famines recurred and only the strong survived. With famine came pestilence. From the fourteenth to the seventeenth centuries the "Black Death" appeared in every generation, often wiping out one-fourth of the population. Leprosy was common. In 1563 came the "Sweating Sickness."

During those ages various methods of prevention and cure failed. Cutting holes in the skull, the use of charms and incantations to cause the demon to come out, as well as exorcisms to scare him did not avail. Even those who purchased high priced amulets doubtless guaranteed to cure, or money refunded, obtained no protection.

Up to the fifteenth century, surgery was a despised profession and anatomy study had to be carried on in secret. Few persons had any scientific idea of medicine. Men coughed and they were flushed with fever, but attempts to heal were in vain. Some, however, were studying science in secret and seeking to understand human mechanisms.

In 1781 in Quimper, France, was born René Théophile Hyacinthe Laënnec who suffered from phthisis and who devoted his life to diseases of the chest. His great contribution to science was the invention of the stethoscope. Louis Pasteur, the son of a poor tanner in Paris, solved many problems regarding preventable disease.

In a back room in Wollstein, Germany, for four years, working determinedly and alone, was the man destined to be the discoverer of the tubercle bacillus. In 1882, Robert Koch announced his discovery of the sneaking, infectious germ that had killed millions and millions of persons.

Since then the great quest for a tuberculosis cure has gone forward. Scientists have offered sincerely to the world what they believed would prove to be a cure. Charlatans with fake nostrums and serums, respiratory apparatus and electric treatments, have sold their "sure cures" to a gullible public. In this country, Dr. Edward Livingston Trudeau in 1885 started his cottage sanatorium at Saranac Lake in the Adirondacks.

In the last half century a great campaign has gone forward in the effort to conquer tuberculosis. Fine progress has been made, but it is a mistake to believe that this preventable disease has been overcome. It still kills more persons between the ages of 15 and 45 than any other disease.

It has been the aim of the tuberculosis so-

cieties, whose efforts are made possible by the sale of Christmas Seals, to spread the message of prevention. This is a nation-wide effort under the direction of the National Tuberculosis Association.

In Pennsylvania Christmas Seals and Health Bonds are sold by county and local organizations affiliated with the Pennsylvania Tuberculosis Society.

FEDERAL EMERGENCY RELIEF ADMINISTRATION

Rules and Regulations No. 7

In this number of the JOURNAL appears in full Rules and Regulations No. 7, as issued by the Federal Emergency Relief Administration. These rules and regulations pertain to the medical care provided in the home of those accepting unemployment federal relief. Secretary Donaldson has communicated with the officers of the component county medical societies in regard to these rules and regulations.

Our members are urged to read very carefully Rules and Regulations No. 7, for their individual information, that they may not only be personally instructed in regard to the same, but that they will be able to cooperate more efficiently with their county and State Society.

ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE MEDICAL ASSOCIATIONS

The 1933 annual Conference of Secretaries of Constituent State Medical Associations, and Editors of the Journals of the State Medical Societies, was held under the auspices of the American Medical Association, at the Palmer House, Chicago, Ill., Sept. 22 to 23. The members of the Conference are indebted to their generous hosts.

Pennsylvania was represented by Secretary Walter F. Donaldson and Editor Frank C. Hammond.

J. H. J. Upham, Columbus, O., chairman of the Board of Trustees of the American Medical Association, called the conference to order. Walter F. Donaldson, Pittsburgh, was chosen chairman.

Dean Lewis, Baltimore, Md., president of the American Medical Association, gave an address on "Quality of Medical Care." Dr. Lewis stressed the need more than ever for the highest obtainable quality of medical care. As a primary basic principle this necessitates efficient teaching of the medical student, and his subsequent training as an intern. The present arrangement of

the curriculum is such, that correlation of the curriculum is impossible, but ideal. The necessity of the physician keeping up with the daily progress of medicine is most essential for medical efficiency. This is maintained by hospital contact and postgraduate work. It should be borne in mind that gross pathology is the basis of all clinical medicine, hence every physician should acquire a knowledge of it. Another feature in regard to the quality of medical care is the lack of control of the profession, quacks and cults. The A. M. A. might work out a scheme of postgraduate instruction.

"The Michigan Survey—Its Findings and Applications," by F. C. Warnshuis, Grand Rapids, Mich., secretary of the Michigan State Medical Society.—This survey was sponsored by and at a cost of more than \$11,000 to the Michigan State Medical Society. An epitome of this survey was presented by Secretary Walter F. Donaldson to the Tristate Medical Conference, held June 24, 1933. For this report see PENNSYLVANIA MEDICAL JOURNAL, November, 1933, page 116.

"Scientific Exhibits and Demonstrations at State Association Meetings," by E. A. Meyerding, St. Paul, Minn., secretary, Minnesota State Medical Association.—Dr. Meyerding outlined a plan used by the Minnesota State Medical Society this year. The booths were arranged to facilitate exhibition and demonstration of specimens or commodities, by affording ample space for physicians to see and hear. In order to afford the members an opportunity to visit the exhibits, the scientific sessions were discontinued at a designated time each day. The need for postgraduate work was urged.

Luncheon was served at the Palmer House.

"Social Dangers of Oversupply of Physicians," by Walter L. Bierring, Des Moines, Iowa, president-elect of the American Medical Association.—Dr. Bierring cited the oversupply of doctors in the United States in comparison with other countries; though the ratio in the United States is 1 to 700, he suggested 1 to 1200 being a fair distribution. The ratio in Sweden is 1 to 2800, regulated by legislation, as is the control of admission to medical schools. The public should be informed that the medical profession is overcrowded. He recommends that the medical schools refuse reregistration to the lower third of the freshman class, each year, in order to reduce the number of graduates.

"Work of Educational Committee of Illinois State Medical Society," by H. M. Camp, Monmouth, Ill., secretary, Illinois State Medical Society.—This activity is in charge of a full time lay secretary. The idea is to make the people of

Illinois health conscious. The people of the state become welded into a group that will work for the State Society in matters legislative. A speakers' bureau is maintained. Capable colored physicians in the State are listed for colored groups. The Committee receives 500 requests annually for speakers. Only members of the State Society are used in this endeavor. Among other things the State Society conducts clinics for physically handicapped children, under the direct management of local county medical societies.

"Postgraduate work of the Committee on Public Health and Medical Education of the Medical Society of the State of New York," by Thomas P. Farmer, Syracuse, N. Y., chairman of the Committee.—Dr. Farmer stressed the fact that continual education of the physician is necessary in order to deliver satisfactory medical service. The rapid increase in medical knowledge makes it difficult for individual physicians to keep well informed through their own unaided efforts. It is difficult to instruct a physician who desires to keep well informed because so much of his time and work must be devoted to his practice. The purpose of this plan is: (1) To acquaint the physician with the progress that is being made. (2) To bring him information of practical value, and to encourage him in the desire to obtain more postgraduate instruction and to indicate how the same can be obtained. Every state should develop a plan for continual education of the physician.

On the evening of the first day of the Conference, a dinner was given to the officers of the A. M. A., and the members of the Conference, by the Chicago Medical Society, in the Trustees' Lounge, Hall of Science, Century of Progress Fair.

The following program was conducted on the second day.

"Medical Defense," by J. E. Tuckerman, Cleveland, O., chairman State Society Committee on Medical Defense.—Dr. Tuckerman detailed the procedure of medical defense as obtains in Ohio. There is no intent upon the part of the committee to compete with companies writing indemnity insurance, but rather to supplement their service in order that every member of the State Society, whether insured or not, shall have adequate defense when sued; and to instruct the membership that they conduct themselves in a manner to avoid being open for suit. The hope of gain is the mainspring of all suits for alleged malpractice, and so far as the profession is concerned, the ideal condition would be for every physician to have nothing in his own name, to own nothing but his open accounts and

a modest automobile. If every physician, in event of an adverse judgment, was execution proof, as indeed most lawyers are, there would be an end to the malpractice industry. Whether a physician carries indemnity insurance or not is a matter for the individual to decide according to his own particular circumstances. When he decides to carry such a policy, the *type* of service and not primarily the *cost* of the insurance, should determine his selection. It is the business of the Committee on Medical Defense to see that members insured under an indemnity policy are accorded every facility in the preparation of their defense, that they may be adequately protected, and that the insurance companies be encouraged to contest and not to settle.

"Some Legislative Problems, Federal and State," by W. C. Woodward, director of the Bureau of Legal Medicine and Legislation of the A. M. A., was of too extensive a scope to abstract.

MEDICAL TRADITIONS AND SOCIALIZATION

It is of interest to note the aftermath or reaction that an annual session of a State Society may have on the press of the Convention City. The following editorial appeared in the *Philadelphia (Pa.) Evening Public Ledger*, Oct. 5, 1933:

Medical Traditions and Socialization

Service for Those in Trouble Has Been the Ideal of the Great Physicians of All Time

Since the days of "Apollo, the physician," the world has turned to the men of medicine in its times of trouble. And, so far as their skill and learning enabled them, the men of medicine have eased the ills of the flesh and comforted the weakness of the body. They have been men of service, guardians of life, protectors of the sick, the halt, and the blind. In consequence, the physician has been, in all ages, an honored man and a leader among his people.

Like all men whose lives are dedicated to service, however, the physician's lot has seldom been an easy one. Those who need him most are not always those who can reward him best. The last few troubled years have been particularly difficult for him, as for all those who live lives of service. Hospitals, clinics, and dispensaries have become crowded with deserving ones who cannot pay, even as relief stations have been overburdened. And out of this condition has risen the feeling that came to a head in the eighty-third annual meeting of the Pennsylvania Medical Society. Socialized medicine has become an issue within the profession.

Today there are more than 1,000,000 persons in the United States engaged in providing medical care and in selling medical commodities. Of these, slightly more than half are giving private, personal service. They include not alone physicians, but dentists, optometrists, and nurses as well. For the services of these men and women, the people of this country pay approximately

\$3,656,000,000 annually. And of this, three-fourths goes for the care of illness.

The share of this annual outlay for health which goes directly to the physicians cannot readily be reckoned, but the Committee on Costs of Medical Care, in its report submitted last year, pointed out that in 1929 one-third of all private practitioners in this country had net incomes of less than \$2500. That report also showed, however, that in 1929 the 70,000 general practitioners—family doctors and those not wholly specialists—had an average net income of slightly less than \$4000, and that the 30,000 specialists had average incomes of somewhat more than \$10,000.

Considering the years of training necessary in the profession, these figures are not encouraging. Since 1929 they have patently not improved. But, on the other hand, it has also been shown that within the profession itself there has been a change in recent years. There is a shortage of general practitioners. There is a growing excess of specialists. The family doctor has been losing ground, and while some cities have been overcrowded with specialists there are scores of small towns entirely without the services of a competent physician. Something more than income has been thrown out of balance, and there is little evidence that those in need of medical care have greatly benefited by the change.

Talk of socialized medicine, perhaps significantly, did not provoke anything like an issue until the last eighteen months. No doubt the troubles of the depression had much to do with it. In appraising the move, however, it should not be forgotten that the physicians are not alone in their new dilemma. All those serving in the professions have been hard hit. Nor should it be forgotten that conditions of the last three years are not normal conditions.

Traditions adorn the medical profession as few others. They all concern themselves with service. The ancient Hippocratic oath of the profession was concerned almost entirely with service and integrity. Those ideals have driven the great physicians and researchers in medicine of all times to their achievements. They still live, else there would not today be thousands in the ranks of medicine who regard all calls for help as demands upon their skill and their abilities, regardless whence they come. So long as the profession remains true to its great and lasting ideals, its decision in this matter cannot be wrong.

The following editorial appeared in the *Philadelphia (Pa.) Record*, Oct. 7, 1933:

The Doctors' Attitude Changes

"Socialization of medicine" is still a fighting phrase to most physicians. They hate it. They fear it. They fight it.

But some of the plans for reform of medical economics suggested to the Pennsylvania Medical Society, meeting here, come as close to socialization as they can without using the word.

Dr. Donald Guthrie, president of the organization, suggests State appropriations to aid the poor who need medical attention. He would have county medical societies allot the money to doctors willing to do the work.

Other physicians want the State to issue medical relief orders, similar to food relief orders, "cashable" by the patient with any doctor of his own selection.

Doctors, apparently, are beginning to see the light. They are at last discussing plans to treat the poor, on a wide, organized scale, without making doctors paid

servants of the State, and without destroying the patient's freedom to pick his own physician.

This is heartening. This shows the doctors realize that unless they develop some substitute for socialization of their profession, socialization will be forced upon them, planned by demagogues and administered by politicians.

It is up to the doctors to forget the word "socialism" and develop the needed rational reforms in medical economics.

They will find that those doctors who fly into insensate rage at the suggestion of any change are usually those doctors who profit most from the system as it is.

As long as these doctors are in control, we shall have the paradox of 10,000,000 Americans without medical attention—and hundreds of destitute and poverty-stricken doctors without patients.

Medical insurance on a wide scale and State aid to patients are coming. **The doctors have time to make certain the changes will be beneficial to all concerned—if they will only stop beating their breasts and develop a compromise plan themselves.**

FEDERAL NARCOTIC LAW

The Treasury Department, Bureau of Narcotics, Washington, D. C., in response to a letter from Arthur C. Morgan, Philadelphia, as of Sept. 15, 1933, requesting information as to what records are to be kept by physicians dispensing morphine to patients, replied as follows:

In so far as the Federal narcotic law is concerned this matter is covered by Section 2 (a) of the Harrison Narcotic Law, and by Article 96 of the regulations issued under the law.

It will be noted that under the Harrison Law and regulations a physician, dentist, or veterinary surgeon is required to keep a record of all narcotics dispensed or distributed showing the amount dispensed or distributed, the date, and the name and address of the patient to whom such drugs are dispensed or distributed, except such as may be dispensed or distributed to a patient upon whom such physician, dentist, or veterinary surgeon shall personally attend. Thus, as interpreted by this Bureau, if a physician dispenses directly to a patient a dose of morphine at the patient's bedside or in the physician's office, such administration of the narcotic is in the course of personal attendance and, assuming, of course, that the administration is for a bona fide medical purpose, no record is required to be kept of the dispensing of the dose of morphine. Should the physician leave a number of morphine tablets at the patient's home for subsequent administration by a nurse or relative of the patient in accordance with directions left by the physician, such as might be done for instance in the case of a patient suffering from malignant cancer, this Bureau apprehends that the physician is required to keep a record of the morphine tablets thus left for subsequent administration.

The foregoing relates, of course, exclusively to the provisions of the Federal act known as the Harrison Narcotic Law, as amended. May I invite attention to the State narcotic law of Pennsylvania, particularly to Section 9367 of the 1920 Pennsylvania statutes, which reads as follows:

"Sec. 9367. Records to be kept; preservation.—Every physician, dentist, and veterinarian shall keep a record of all said drugs administered, dispensed, or distributed by him, showing the amount administered, dispensed, or distributed, the date, the name and address

of the patient; and, in the case of a veterinarian, the name and address of the owner of the animal to whom such drugs are dispensed or distributed; such records shall be kept for two years from the date of administering, dispensing, or distributing such drug, and shall be opened for inspection by the proper authorities. No record need be kept of any drug administered in an emergency case."

It will be noted that the State law does not apply the test of personal attendance to the keeping of records of narcotic dispensing but restricts the exemption from record keeping to drugs administered in an emergency case. This appears to be more rigid than the Federal requirements so that the Pennsylvania physician be required under the State law to keep records of all narcotic drugs dispensed by him even while in personal attendance upon the patient unless the circumstances are such as to justify classification of the case as "emergency."

Very truly yours,

(Signed) H. J. ANSLINGER, *Commissioner*.

Sec. 2. (a) To the dispensing or distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this Act in the course of his professional practice only: *Provided*, that such physician, dentist or veterinary surgeon shall keep a record of all such drugs dispensed or distributed, showing the amount dispensed or distributed, the date, and the name and address of the patient to whom such drugs are dispensed or distributed, except such as may be dispensed or distributed to a patient upon whom such physician, dentist, or veterinary surgeon shall personally attend; and such record shall be kept for a period of two years from the date of dispensing or distributing such drugs, subject to inspection, as provided in this Act.

ARTICLE 96

Class 4.—All persons and institutions registered as members of Class 4 (practitioners, art. 10), whether they be physicians, dentists, veterinary surgeons, hospitals, sanatoriums, medical schools or colleges, dispensaries not connected with a Federal, state, county, or municipal institution, welfare bureaus, or charitable institutions of any kind giving treatment in which a narcotic drug is necessary, should keep a daily record showing the kind and quantity of narcotic drugs or preparations dispensed or administered, the name and address of each person to whom dispensed or administered, the name and address of the person upon whose authority the narcotic drug or preparation is dispensed or administered, and the purpose for which it is dispensed or administered. Physicians, dentists, veterinary surgeons, and other practitioners are not required to keep a record of drugs dispensed to persons upon whom they in the course of their professional practice are in personal attendance.

COMMENTS AND EXCERPTS

Science and Research

From studies on cancer inheritance carried on for 23 years and involving 116,000 necropsies, Maude Slye, of the Sprague Memorial Institute and the University of Chicago, has found that one gene in germ cells determined whether or not an individual is susceptible to cancer.

Miss Slye points out that heredity is not the only cause of cancer. "An external factor acting with internal factors upon a susceptible soil is probably the cause of cancer," she states in her report.

A fact brought out by Miss Slye's studies is that insusceptibility to cancer is a dominant factor; susceptibility to cancer is a recessive factor.

Dr. Leon C. Havens, for 12 years director of the Alabama State Health Laboratories, has a fitting monument in a new protective toxoid which gives protection against diphtheria with a single injection instead of the 3 injections usually given. The new toxoid was developed from the old toxoid used in diphtheria prevention work. Treated with alum, the toxoid forms a precipitate which is very slowly soluble, and is absorbed in the body much more slowly than the old style toxoid. Dr. Havens believed that this would make it more effective, since none would be wasted by elimination from the body before it had time to develop immunity to diphtheria. Investigations proved that this was correct, and the new toxoid has been approved by the United States National Institute of Health in Washington.

Dr. J. N. Baker, Alabama State Health Officer, stated at a recent meeting in Montgomery, Alabama: "The finding by Dr. Havens of an immunizing agent for protection against diphtheria, as potent as the present preparation, will do much to revolutionize the campaign against diphtheria. Formerly it required 3 injections, a week apart, to secure adequate protection. With this new product one injection will immunize 95 to 98 per cent of those susceptible."

MEDICAL ECONOMICS

Shall Medicine be Reorganized Under the NRA Code?—The doctor is an important cog in the wheel of national recovery and has suffered more severely, perhaps, than any one other group in the nation, from the repercussions of the last few years of economic distress.

The doctor is beset in his own relation with other doctors by such unfair practices as fee splitting, fee cutting, contract practice (denying adequate fees), group health clinics, insurance group practice, advertising, charlatanism, and many other devices which are rapidly leading him toward state medicine, and from which he may now, by organized and closely coordinated methods, organize under a "code" which, if endorsed nationally or by the National Recovery Board, becomes in effect federal law, and carried with it adequate penalties for disobedience of such a "code."

As this NRA movement is new, and we are more or less at a loss to know just what constitutes full cooperation, it is my opinion that the state association should formulate a set of rules by which the profession generally should be guided.

This NRA movement has marked a turning point in the economic "set up" for every one, whether this particular plan succeeds or not, so therefore, every professional man must anticipate and prepare to meet the advent of a new economic era.

I have not formulated any specific measures which will correct the disadvantage to which the doctor now finds himself placed, since he cannot raise the price of his "commodity" to compensate for those salary and time adjustments applying to all his employees other than technicians and nurses.

Many of the doctors over the state are running small private hospitals which do not employ, entirely, reg-

istered nurses; those men should be advised by the medical profession itself what they should do, and not allow lay organizations to work out finally such problems which might be distinctly disadvantageous to the profession whose desires to be of service have superseded all others.

I have in mind a radical step which departs entirely from the old Æsculapian code—and that is for us to set up now a basic fee schedule (a minimal charge), a basic code for ordinary services rendered.

I next desire to have set up in such "code" those things which are to be considered "unfair practice" thus giving the doctor a definite target to shoot at; admitting, as we must, that our organized efforts have in the past been directed almost entirely on scientific advancement to the exclusion of our economic welfare, such a movement is distinctly advancement.

I feel that this is the psychologic time to regulate ourselves since the matter of ethics and unfair practice has entered the national consciousness.

I am not one who becomes unduly alarmed, but this proposition, namely the NRA, is going to be forced, if it is not accepted voluntarily. Are the doctors going to meet it squarely or have it and its resultant economic changes forced upon them?

We should act now, or at least set up the necessary machinery to enable us to keep apace with labor, industry, and business, who are setting up codes and working agreements that have teeth in them to punish the unfair and the dissenters.—*Editorial, Nebraska M. J., (Sept.) 1933.*

State Medicine.—The term "state medicine" occurs with increasing frequency in medical literature and in conversations between medical men. It is used many times as if it conveyed one definite meaning.

A little conversation with doctors will soon bring out the fact that there is a variety of opinions as to what state medicine really is. As a result of this lack of uniformity of opinion some confusion has grown up concerning the whole idea.

One doctor I know has been accused of being willing to sponsor or support a movement alleged to be in the direction of state medicine, when the facts are the movement was inaugurated for the purpose of combating state medicine.

Some of this confusion of opinion is doing harm and should be cleared away. The term is not easy to define. There are many practices which one doctor may regard as state medicine and another not as state medicine. For example, organized medicine has sponsored the creation of state, county, and municipal departments of health for the purpose of carrying on certain medical activities in the interest of public health. These activities and practices constitute state medicine in a sense but they are not state medicine in another sense when their activities are kept within the proper bounds.

Organized medicine has sponsored the creation of municipal hospitals in which *indigent patients* receive free medical and hospital care. The plan, or system, under which these institutions operate varies. In some instances doctors who take care of patients receive remuneration. In others, the intern staff receives some remuneration and the attending staff from the outside receives no pay whatever. When properly run such institutions are not engaged in state medicine, though they are financed by the government.

Medical organizations have sponsored the creation of tuberculosis hospitals which care for and treat tuberculosis patients free of charge, or at small cost. In most of these institutions the doctors in attendance are

resident in the institution and devote their entire time to the care of such patients and draw a salary from the state, county, or municipality, as the case may be.

One might continue the enumeration of examples of medical activities on the part of government which no one regards as state medicine, but the above will suffice to show that every one recognizes that there are certain activities which are medical in nature which must be performed by the state or some unit of it. For the state or some unit of it to engage in a medical activity does not of itself constitute state medicine.

We propose the following as a definition: State medicine is a system of medical practice in which the physician renders services as an employee of the state and in which the patient has no voice in the selection of his physician and which practice places the physician so engaged in unfair competition with practitioners.

There are several elements in state medicine. In the first place, an essential relationship between doctor and patient is destroyed. That is to say, the patient gives up his liberty of choosing his doctor and the doctor has no liberty in choosing his patient. The destruction of this relationship is of vital importance not only for the moment but for all times to come. It is the most destructive phase of the whole subject.

In the second place, an unethical practice is engaged in. It is unethical for the simple reason that it is unfair. Ethics is fairness. It is around this sense of fairness and sound good policy that the whole code of ethics is constructed.

From the examples cited it is obvious that it is possible for the state to render aid to sick people under such conditions and circumstances as not to constitute an unfair practice. For example, when a health department engages in activities which were never intended, it places the physicians of that department in direct and unfair competition with private physicians and they therefore become engaged in unethical and unfair practice. If a municipal hospital should inaugurate the practice of admitting and caring for patients who are not indigent then that institution would be engaging in unethical and unfair practice.

All these elements must be taken into consideration in determining whether or not a certain practice constitutes state medicine in the vicious form which organized medicine seeks to combat. There are two elements ordinarily which stand out. One is the destruction of freedom of both the doctor and the patient, and the other element is the element of gross unfairness. As in the case of contract practice, elements which enter into the practice constitute the menacing feature. It is perfectly possible for a unit of the government to render medical service without violating ethical principles. When these institutions, however, engage in practices which are in violation of fundamental ethical principles then they become destructive to the best that is in people, in government, and the medical profession.

Medical activities on the part of the state become vicious and menacing state medicine when fundamental ethical principles are violated.—*Editorial, J. Tennessee M. A., (Aug.) 1933.*

The Foreign Medical Graduate.—Dr. Harold Rybins, secretary, Board of Medical Examiners of the State of New York, Albany, New York, discusses this problem in *The Journal of the Association of American Medical Colleges*. There are approximately 13,000 technically eligible applicants applying for admission to our medical schools each year.

The number of freshmen admitted in the United States and Canada each year is approximately 6000.

The rejected 7000 have created a new problem affecting standards of medical education and practice.

"What becomes of this excess group?" The only definite fact is that during the past 5 years there has been a very definite migration of American college students to European medical schools, so that at the present time there are no less than 2000 students who have been refused admission to American medical schools on the basis of competitive selection who are studying medicine in Europe, practically all anticipating returning to the United States to practice their profession.

It would, of course, be grossly unfair to stigmatize the individuals of this group as inferior, and doubtless it contains a not inconsiderable number of very excellent students. Taken by and large, however, it cannot be denied that this group is made up of 2000 or more students who were rejected on the basis of competitive selection for admission to our medical schools, and to this extent, at least, they must be considered as constituting a relatively inferior group. In addition, not a few of these students have previously been admitted to American medical schools and having failed to keep up with their work they have been dropped or been asked to withdraw.

If this migration of rejected American students to Europe continues, as there is every reason to believe it will, their ultimate return to practice in the United States might very readily bring about a lowering of the quality of medical service in this country.

Finally, we must frankly face the question whether or not at least some of these students may not be exposed to a professional training which is in many ways inferior to that now required in the United States, and which does not adequately train American students for the proper practice of their profession in this country.

Figures published by the Council on Medical Education and Hospitals of the American Medical Association for 27,828 applicants for all state licensing examinations during the 5-year period, 1927-1931, inclusive, show there were 4.5 per cent failures among all the Americans, including Canadians, as contrasted with 50 per cent among all foreign graduates, of whom there were 1157.

Medical Readjustment.—The attitude of the average member of the medical profession towards the rapid changing of conditions presents an interesting paradox. In the line of technical progress, the advances in the fields of pathology, therapeutics, preventive medicine, etc., are not only accepted promptly by the medical man but are anticipated by the various foundations inspired by his self-sacrificing efforts. This restlessness to keep not only in step with the onward march of medical progress but to crowd the advance guard, is most commendable and a matter of pride to all, but is somewhat marred by an attitude, mostly mental, towards general conditions that scarcely raises us out of the status of the priesthood of the pagan countries.

Time was when the pagan priest and the doctors were one and the same person. Some of the tribes have made no change in this relationship. Through countless ages, dark and otherwise, the relation has persisted in some manner that the acquisition of the glory of the medical part was more sought after than its real possibilities for accomplishment.

Meanwhile, shrewd charlatans and outsiders made contributions to the healing art that were truly valuable, and obtained a respect not only from the rulers but

from the people, expressed in the coin of the realm. It is not our purpose to glorify these shysters, but had the educated physicians of bygone days given less time to academic discussions and the maintenance of their high position—or shall we call it, high-hat position—their minds would have more quickly grasped changing conditions and these shyster conquests would have been impossible.

The history of quackery shows the attainment by these crafty fellows, not only of financial success, but of all the honors to which the learned physician and surgeon has aspired. And further careful analysis will show that many of these rated as charlatans became so rated only after they had departed from the usages of the ancient Medes and Persians, and had attained success. So, from all ages down to our own, a departure from the established customs of several thousand years is likely to be suicidal. There is only one unpardonable sin, originality.

With the increasing tempo of modern conditions in general, our attitude towards the public and its general viewpoint demands a general overhauling. That this has been appreciated in various parts of our country is no news. The attempts to meet the situation have expressed themselves in more or less futile gestures having as their object the education of the public rather than the rehabilitation of the physician's attitude towards the public. In times past the young physician spent years in dispensary service acquiring refinement of technic and experience gratuitously; now he spends good money and two or three years in a good postgraduate course and should, if he be any good, come out ready for work much better equipped than any of the men ever were under the old scheme, and while he is still young enough, he is in position to develop further on this excellent groundwork of his education.

If it should so happen that his funds by this time become exhausted, the great uses of adversity so beautifully stressed by Shakespeare come to his rescue and he strives to market his services so as to support himself. The odds are against him and he quickly learns that the experience of Elijah is in no great danger of repetition as far as he is concerned. But should he be so fortified with this world's goods, and some of us are, that he need not worry over his sustenance from day to day, he lapses into the condition that has prevailed for centuries among us. The honor and the glory of the profession according to the old standards has another votary, another incense burner, even though his technical accomplishments may be decidedly noteworthy and most progressive in character.

A long while ago the fact was stressed that the laborer is worthy of his hire. The physician, a laborer of the most intense and glorified type, is no less entitled to his remuneration. But he has no right to make himself a fool over it. If there be men among us who have all they need, or do not honestly want financial remuneration for their services, there are countless fields in the domain of medicine in which their wishes may be gratified, and in which the competition is slight indeed. But to build up a strong competition, on a price basis, with his less favored professional brethren, by doing minor work gratuitously for those well able to pay for the same, is to damage all parties concerned. And all for what! Just to gratify the vanity of the donor—a reversion to the pagan priest status. A further development of this same point of view is the acceptance of salaried medical appointments in which the remuneration is less than the value of the services rendered by those not dependent upon these salaries for support. The ultimate result of this is that all those

that must fall back upon these salaried positions for support are compelled to accept wages insufficient for their needs. Now should such workers resort to a host of questionable practices in order to make sufficient to live, they are rascals indeed.

It is customary in an essay of this character to take a fling at the hospitals and the dispensary evils. To us many of these have solved themselves in so far as they injure the doctors. The multitudinous fees, the long waits, the indifferent opinions and the countless irritating events, prepare the patient who had at first shunned the private physician, for subsequent consultation with some painstaking, kind, conscientious doctor. We have knowledge of one club that had previously sent its restaurant employees to a hospital for the perennial examination, which club learned that the "time out" required by the hospital cost it more than having the examination paid for in cash to a near-by physician. Unfortunately, the glamor of the hospital—the old pagan temple—calls the patient louder as a rule. He fails to remain steadfast and hies himself to the various cultists, one after the other.

This is no indictment of the hospital as a medical center or unit, but it is of those who have been carried away with the idea to the detriment of everything else in the way of the practical application of our medical knowledge. A boy with a splinter in his finger or a bit of coal dirt in his eye does not require a bloodchemistry or an investigation of his social condition by the Social Service Department, nor on the other hand should he be relegated to the corner drug store for treatment, thus interrupting the clerk in the preparation of his sandwiches. We cannot be impressed favorably by the many useless, as well as expensive, motions in the conducting of one of these elaborate institutions. This constitutes a big element in the so-called "High Cost of Medical Care," which we must admit but at the same time resent as being designated as "medical."

Many of those involved in this complicated medical enterprise justify it on the grounds that there can be no difference in the type of medical attention given the poor or the rich, and that the cost will always be disproportionate to the financial means of the majority. The main cost, they maintain, must be shouldered by the community. These arguments fall into the class of half truths and are therefore very dangerous. There are plenty of people to be found who just love to patronize such medical institutions whether they obtain any return for the time and money spent, and there is a class of wealthy people, not very large just now, who will not have their doctoring any other way. The entire community cannot be handled in this manner. Again, were it not for the fact that all of us in our lives are well more days than we are sick, all this argument about the community's responsibility (and this means the part of the community that has a dollar or more) would be a good one. Therefore, the cost of being sick can well be placed upon the sick themselves, or their families if minors, in all but a small percentage of cases. The indigent sick and the aged sick have attained a fixed position in every community and are not here under consideration. The community's responsibility, in purely medical activities, ends with the prevention of community preventable diseases, and as has already been acknowledged the care of the indigent and aged sick. The latter cannot be many in a country such as ours. But my, how quickly we can make them by our craving for the type of deference and obeisance, which we have designated as "pagan," such institutional life sustains!

The expensive and time-consuming training of the orthodox physician eliminates him from taking a fling

at any other vocation with any prospect of success. Many times his judgment in ordinary investments is so erroneous as to be pitiable. He has to remain a doctor, be he a good one or a bad one, a rich one or a poor one. It is, therefore, highly essential that the community, in its own interest, protect him that they may utilize this training for the benefit of the greatest number. Working free operations and advice out of the hospital doctors is not the way to do it. From the lay point of view, the advice and counsel given by the doctors is good no matter where given, just so long as no money is asked for it. The payroll of every hospital in any community measures up well with that of any other local industry. But the doctors are not in on it!

For purposes of argument, were every medical service rendered, no matter how trivial, paid for, the sum total would be amazingly low and would eliminate the patients that are now sent to the hospitals to get rid of them and who avail themselves of every service and test the hospital has to offer. This is a big group. Eliminating it would lessen hospital patronage and hospital costs. The less busy the hospital, the less the deficit. As the situation now exists, every one in connection with a hospital tries to bring up the number of cases treated for report purposes. The doctor who receives \$100 for an operation on a private patient and will take no less, and then on the same day, perhaps, performs 30 of the same kind for nothing in the hospital, receives per operation only the quotient when 100 is divided by 31, but he does not think so. He might have had 15 out of this group for \$20, or 20 for \$10; or, if he did not want it this way, he could have allowed an assistant so to do. Try to put a thought like this over and see where it gets you!

The medical schools aided and abetted by every physician in the community have stood out for greater preparation of the student—premedical, undergraduate, and postgraduate, ignoring the fact that there are thousands of minor ailments that always remain minor and that do not demand all our elaborate resources for their treatment. We have closed our eyes and ears to the need of a group of men prepared under proper auspices for just such general practice, with not so much training as now given them—a group of licentiates of medicine. While we have ignored this need, we have fallen all over ourselves to establish training schools for nurses, educating them gratuitously, so that they may go out into the field as industrial, school, welfare, and many other kinds of nurses, actually practicing the type of medicine, the existence of which we have denied, or that it could be so handled. Surely we need to wake up!—(Editorial) *The Weekly Roster and Medical Digest*, April 29, 1933.

Additional Articles on Medical Economics

- Tristate Medical Conference Report, p. 106.
- Annual Conference of Secretaries of Constituent State Medical Associations, p. 125.
- Minutes of the House of Delegates, pp. 141, 146.
- Minutes of the General Meeting, p. 152.
- Blair County—Sept. 6, p. 179.
- Northampton County—Sept. 7, p. 188.
- Second Councilor District Meeting, p. 191.
- Eleventh Councilor District Meeting, p. 193.

HOSPITAL ACTIVITIES

Essential Factors in a New Deal for the Hospital Field.—M. T. MacEachern, director of hospital activities, American College of Surgeons, lists eleven conditions as necessary.

1. The public must be "hospital-minded."
2. Incompetent, unethical, inefficient hospitals must be eliminated.
3. Only well trained, adequately experienced persons must have the administration of hospitals.
4. Hospital executives, superintendents and personnel must have better means of training for their work.
5. Politics must be eliminated from tax-supported hospitals.
6. All hospitals doing free work must be reimbursed by city, county, or state, unless carrying an endowment sufficient to take care of the extra load.
7. Hospitals in many communities should be reduced in number through consolidation, combination of facilities, etc.
8. Physicians must support their hospitals by using the institutions' facilities.
9. Provision must be made for the patient of moderate means.
10. There must be utmost coöperation among those concerned with the care of the patient.
11. The hospital must be so organized that it functions properly, not only for the benefit of the patient whom it treats but also for the good of the entire community.—*Hospital Management*, Sept. 15, 1933.

Paying Patients in British Hospitals.—Paying wards in British general hospitals are gaining in favor. These hospitals being conducted by voluntary endowments, subscriptions, and donations, and having been founded for the treatment and care of the indigent, are precluded from expending any of their funds for the creation or maintenance of private wards. Thus an anomalous situation has arisen. The poor are well treated in hospitals, the rich can pay for the best treatment, while those of limited means, the middle classes, are unable to gain access to the hospitals and as they cannot afford to pay for expert advice and treatment, or, if they are compelled to do so, are handicapped financially for probably the remainder of their lives. Thus they are in a perilous position.

Things, however, in this direction appear to be changing for the better. Last year a total of 1667 persons were treated in the private wards of British hospitals. Now the authorities of the big London Hospitals, the "London" hospital for example, in the East End has announced its intention to provide a number of beds for paying patients of the middle class, of course, not encroaching on the rights of the neighboring poor to any appreciable extent. The money must be raised for the adaptation of these paying beds with all the elaborate scientific equipment involved. It is now known well that with the advance of medical science that *pari passu* with the more effective treatment of serious cases, it has called for elaborate and costly equipment and a very great deal of research work. The only way by which people of moderate means can receive treatment of this nature is through the hospitals which at the present time are practically barred to them. The treatment or lack of competent treatment, that is, in grave cases of the British middle classes, has long been a blot on the voluntary system so excellent in every other respect. This defect is in process of being remedied.

The organization of treatment of the British middle classes was greatly stimulated some months ago by the scheme devised by the British Provident Association. The design of this plan was first and foremost to enable people not well provided with this world's goods

to insure against the heavy expenses of those severe illnesses, the effective treatment of which demands all the resources of an institution. This plan is of twofold benefit. In the first place it cannot fail to diminish the competition with the poorer members of the community for the vacant beds of hospitals. And, second, it ensures that the subscription obtains proper treatment. Although the hospital provision for the British middle classes remains woefully inadequate, the London Hospital and the insurance scheme are steps in the right direction. There is doubt that hospital treatment is greatly on the increase and the time may not be far distant when for grave cases such treatment will be regarded as a matter of course, as accommodation will be available. It is but another instance of supply and demand. If a thing is really needed and demanded the supply is always forthcoming.—*Editorial, M. J. & Record, Sept. 20, 1933.*

"Hourly Nursing Service."—The following conclusions were based on an 18 months' experiment carried out in Chicago.

From the point of view of the public, the most significant findings from the experiment seem to be the following:

1. The economic depression did not result in the increased demand for hourly nursing among persons of moderate means. Persons in comfortable circumstances and the well-to-do used the service most freely. The service was most popular among those who could afford to pay for a full-time nurse when necessary but who did not need one.

2. The most effective type of publicity for hourly nursing was not through newspapers or other media reaching large numbers of persons, but was achieved through physicians and hospitals. Personal contacts with physicians in homes or offices, explanatory talks before groups such as hospital staffs and members of medical societies, with the free distribution of literature, brought more returns than any other form of publicity. This increased interest on the part of physicians, their courtesy, and their helpfulness in advising the use of the service among patients was noteworthy and indicated the confidence placed in its efficiency.

3. Hourly nursing service cannot be self supporting on a small scale unless an already existing organization shares the overhead expense. The cost of the service when administered, as was this experiment, as an enterprise separate from that of a general districted nursing service is comparatively high. A considerable proportion of the nurses' time must be spent in travel. The concentration of demands by patients at certain periods of the day also makes it difficult to keep an even flow of work for a staff specializing in hourly nursing.

4. A lay committee acting in an advisory capacity was of great value in the experiment in securing both financial support and the coöperation of physicians, hospitals, and the press.

From the point of view of nurses and nursing organizations, the following points seemed apparent:

(i) Hourly nursing was found to be particularly appropriate for chronic illnesses when continuous care is not needed. The bulk of the work was among such patients, who took advantage of the fact that they could have as much service as they were willing to pay for up to 4 hours a day. No restriction was placed on the frequency of the visits. In the treatment of illnesses extending over a period of months or years, especially carcinoma and heart conditions, hourly nursing service is particularly applicable.

(ii) Service by appointment at specified hours would seem an essential feature of hourly nursing. The non-appointment service did not prove particularly popular, although somewhat less expensive.

(iii) The use of a plan of associate nurses supplementing the staff nurses was found to be of great value both as an administrative device and as a means of sending a certain amount of work to qualified nurses who would otherwise have been unemployed.

(iv) There is a real demand for hourly nursing, but not of a sufficient amount as yet to have any substantial effect upon unemployment among nurses in general.

(v) Patients appreciated greatly continuity in personal contact with a nurse. Changes in nurses diminished both the popularity and the professional value of the service.

(vi) Nursing service during the evening was invaluable for such procedures as surgical dressings, hot packs, etc.

(vii) Patients living in hotels, small apartments, etc., appreciated hourly nursing service because they did not have to provide meals or sleeping quarters for a nurse.

(viii) The hourly nurse was assisted by close contact with the patient's physician and by coming fully equipped to carry out the physician's orders.

(ix) The experiment demonstrated the importance of centralized administration and supervision and the use of uniform, up-to-date records, the careful assignment of cases and a strict adherence to well-defined policies in regard to fees, nursing procedures, and ethical relations.

(x) Unquestionably there is a field for hourly nursing as a part of a complete community nursing service. It may not be large, but it is larger than was demonstrated by this experiment, because many nurses, profiting by the publicity given the project, worked independently of the organization.—*Am. J. Nursing, March-April, 1933.*

PHYSICAL THERAPY

Radiology Vital to Health of Nation.—General Hugh S. Cumming, of the U. S. Public Health Service, described to members of the American Congress of Radiology, the vital part of roentgenology in fighting cancer and tuberculosis, and in protecting industrial workers from the dangers to their lungs and health caused by certain industrial dusts. To quote Dr. Cumming: "To no branch of medicine does the public health of the nation owe more than to radiology."

MEDICOLEGAL NOTES

Divided Responsibilities of Operating Surgeon and Anesthetist.—A surgeon who is employed to conduct an operation in a hospital is not liable for the negligent acts of an anesthetist employed by the hospital, the California District Court of Appeals holds in a recent case in that court.

The action was for damages by a hospital patient, who joined as defendants the operating surgeon, the hospital, and two nurses. The negligence alleged was the failure to examine an ether machine used during an operation for the removal of adenoids and the removal of the patient's adenoids after discovery that an excessive amount of ether had been administered.

The patient had employed the surgeon and made independent arrangements for hospitalization. The hos-

pital was a charitable one and the court absolved it from liability on that account. As regards the surgeon, he was not employed by the hospital and was not charged with supervision of the ether machine, which he neither furnished, assembled, inspected, nor prepared for use. The witnesses all agreed that it was the duty of the anesthetist to superintend such work and to test the machine before it was used, and that proper medical practice requires it of such attendant. The court accepted as typical of the evidence on this point the testimony of one medical witness who swore: "I think the duties are completely separated. The surgeon is responsible for the operating work only—the results of the operation; and the anesthetist is responsible for the life of the patient so far as the anesthetic is concerned."

As soon as the doctor approached the operating table and observed an excessive flow of anesthetic he removed the tube, applied restorative methods, and removed the patient's adenoids. The patient's own witness, an expert, testified that this might have assisted the patient—might have helped to relieve the condition of the lungs.

The court held that nothing had been shown to charge the operating surgeon with negligence, and judgment on a directed verdict for all the defendants was affirmed.

Prior cases have established the rule that in surgical operations the anesthetist is directly chargeable with the physical condition of the patient in the operating room, and his attention must always be directed solely to administer the proper amount of the anesthetic and continuing its supply in just such proportions as will insure the patient's remaining in a comatose condition while the knife is being used, so that he would not be responsible for any carelessness of the operating surgeon of which he had no knowledge.

And where two physicians who were independently engaged to attend a childbirth agreed that one was to use the instruments and the other to administer the anesthetic, the Seventh Circuit Court of Appeals held that the latter was not liable for negligent acts of the former in neglecting to sterilize his instruments and to sew a laceration unless he, in the exercise of reasonable diligence, should have known that these things were likely to occur.

A similar decision was made in an Alabama case. In both these cases the point was made that the physicians were practicing their profession as independent agents.—*Editorial, M. J. Record, Sept. 6, 1933.*

INDUSTRIAL MEDICINE

Toll of "Nerves" in Accidents.—Dr. Major Greenwood, professor of epidemiology and vital statistics at the University of London, believing that accidents do not just happen, was led into the appraisal of nerves in industry through a study of trivial accidents which cause waste of time and material. Believing that industrial accidents were not just as likely to happen to one person as another, Dr. Greenwood found that the individual who on one day had an accident would be more likely to be a repeater, and to have an accident the next day than would other workers. Dr. Greenwood's studies showed that of 648 woman munition workers, 447 had no accidents during a period of 5 weeks. Twenty-one of these women had 3 accidents each; 3, had 4 accidents each; 2, had as many as 5

accidents. These scores would not be attained by more than one individual in a chance distribution.

Maximum Work in Morning Hours.—At a meeting of the American Psychological Association, Dr. G. L. Freeman, of Northwestern University, reported that there is a daily rhythm in work efficiency. Dr. Freeman required subjects to do the same amount of work at different hours of the day and measured the energy expended. He found the energy expended in the morning is the least, and rises to a maximum in the late afternoon. Dr. Freeman also observed that the energy used during rest was greatest in the early morning and least right after lunch.

Human Rehabilitation.—In an address before the National Conference on Rehabilitation of Disabled Persons, Lewis H. Carris, of New York City, managing director of the National Society for the Prevention of Blindness, stated in part: "Much has been said of the extent of unemployment, of the destitution of those who have remained without employment for 2 or 3 or 4 years, and of the need for material relief. Not so much has been said or written of those results of the depression which are daily adding to the need for rehabilitating men and women—a job which will have to be done in the years immediately ahead.

"First among these results are malnutrition and all its consequences. Long continued unemployment has affected more than 10,000,000 families, numbering probably 40,000,000 individuals, in this country in the last 3 years. When one reads the reports of welfare workers in immediate touch with these families or, better still, talks to these workers and hears the observations that do not often get into the records, one cannot escape the conviction that a large proportion of these 40,000,000—those who are on relief rolls as well as those who are not—have been hungry and underfed, for weeks, months, and years.

"In the years immediately ahead, these underfed men and women and their grown children will return to our factories, mines, railroads, elevators, motortrucks, street cars, and other work places. It will be years—and possibly several generations—before the purely physical effects of their long-continued privations have been wiped out; for many this will never happen. Meanwhile, marked increases in public and industrial accidents, marked increases in illness of all sorts are inevitable. These undernourished workers will, for years, become more easily fatigued; they will, in many cases, be less alert to the health and accident hazards of their occupations; their coördination of sense organs—sight, sound, smell, and touch—with brain impulses will be less rapid. Only a miracle will save us from a marked increase in the frequency and severity of serious industrial injuries and diseases during the next 5 or 10 years.

"We must seek not only to reduce unemployment by redistribution of work opportunities; not only to raise the standard of living by reducing hours and increasing pay rates; but also to conserve to a greater degree than has been true in the past, the life, limb, and general health of the American worker. Our great difficulty has been that production has been organized not to meet the needs of the individuals composing society, but to yield the greatest possible profit, in order that this profit might be reinvested in additional machinery and raw material which in turn could produce more profit. This philosophy of life has resulted in a steadily increasing multitude of individuals needing rehabilitation for the

loss of sight or limb or for disability caused by disease; it has produced a much greater multitude who need rehabilitation in the sense of finding a job and adjustment to life."

PUBLIC HEALTH

Result of War on Tuberculosis.—Statisticians of the Metropolitan Life Insurance Company, of New York City, have found that almost an entire year has been added to the general average duration of life, within the decade 1920 to 1930.

According to the mortality statistics of the census year, 1930, the curtailment of the average length of life due to tuberculosis was just over one year, for white persons of either sex. In 1920, it was a little less than 2 years. In 1910, it was about 3 years.

Tuberculosis causes deaths largely among young persons or those persons at the prime of life. So that even though during the past decade the death loss from tuberculosis has been decreased to the seventh rank among the principal causes of death, yet the number of years of life lost is still an important item.

Carnival Inspection.—Circuses and carnivals are now being carefully inspected by agents of the restaurant hygiene section for the purpose of protecting the public against disease by way of improperly protected food and ill food handlers. The inspections involve the food containers, food preparation, and an investigation of the physical condition of food handlers as evidenced by medical certificates which must be procured by them. —*Pennsylvania's Health, July-August, 1933.*

Relief Measures.—Throughout the State relief measures have been active. The resources of the Commonwealth have been expended at an unprecedented rate—approximately \$6,000,000 a month. Over \$3,000,000 has been spent since last September to supply milk to the 500,000 undernourished children of the unemployed—the latter without any overhead, the State nurses being used as county agents. While it is too early accurately to estimate what has been accomplished and no state-wide survey has been attempted, much less completed, Secretary of Health Theodore B. Appel feels justified in stating that the menace of undernourishment and malnutrition has been met, and that as a rule throughout Pennsylvania the physical condition of the children at least is better than it was in September, 1932. Moreover, one can prophesy safely that the next medical inspection of the school children of the State will tell more of the story than that already presented. Local reports from the State nurses and from school teachers from all sections indicate a definite gain in health and weight among the children and, what is of greater significance, a better aptitude for learning among the children than a year ago.

We all realize the economic conditions this country is fighting at this time. It has been said that we are at war—that we are engaged in a combat to determine whether or not society as we see it and civilization itself shall endure. This combat is by no means settled and will go on into the future. Rehabilitation comes slowly, and the oncoming generation must shoulder the burden. So the importance to society of the children now with us and of those born in the near future cannot be overestimated—on them rests the hope for the future. Consequently it is part of our battle at present to see that these children have the best opportunities that can be given them, so that when it is their time to take up the fight they will not be handicapped. —*Pennsylvania's Health, July-August, 1933.*

Automobile Accidents Increase.—Automobile accidents increased 21 per cent in March over the same month last year, the Department of Revenue reports. Comparative figures show 2815 accidents in March, 1932, and 3407 last March, a gain of 592.

These accidents killed 140 persons, injured 3461, and caused property damage amounting to \$376,500. Compared with March, 1932, the figures show a 2.6 per cent decrease in persons killed, but increases of 43.1 per cent in injured, and 8.3 per cent in property damage.

In spite of repeated warnings and frequent safety campaigns, the number of reckless motorists and careless pedestrians is still large. Present-day traffic conditions require the undivided attention of everyone. Accidents will not be reduced until we make safety a habit.

Accidents of all types increased in March except collisions with railroad trains. There were 12 of the latter, a decrease of 20 per cent compared with March, 1932. The largest increase was in accidents involving pedestrians. There were 1046 such accidents reported, or 70.3 per cent more than in March a year ago.

Other types of accidents increased as follows: Collision with horse-drawn vehicle, 61 per cent; collision with bicycle, 50 per cent; collision with street car, 17.3 per cent; collision with animal, 50 per cent; noncollision accidents, 17.2 per cent; and collisions between 2 or more vehicles, 5.6 per cent.

Forty-six per cent of the accidents due to law violations were attributed to excessive speed. There were 796 such accidents. Twenty were fatal. Nonfatal injuries were reported in 465, and property damage only in 311. In March, 1932, 30.4 per cent of law violation accidents were caused by excessive speed.

The weather was not an important factor in March accidents since 67.6 per cent, or 2305, occurred on clear days. Sixty-one per cent of the operators filing reports last month stated that the road surface was dry at the time of their accident. —*From Capitol News.*

Women Like to "Play Sick" Scientist Finds in Survey.—At a meeting of the American Association for the Advancement of Science, held in Chicago, June 23, the statement was made that complaining about headaches that don't exist is woman's ordained lot. Man's lot is to swagger about the house with inflated ideas about his own importance. The reason: Life is that way. These observations were reported by Dr. Mandel Sherman, of the University of Chicago, as the result of extensive studies that he said indicated the existence of a direct relationship between cultural background and the abnormal mental symptoms of persons.

In gathering statistics to support his theory, he studied patients in 3 Chicago and 1 St. Louis psychopathic hospitals, considering their sex, religion, nationality, occupation, economic status, and environmental background. Those whose abnormalities arose from physical disorders were excluded in the survey. Comparing the symptoms in the mental diseases among the 3 main groups of religious affiliations—Catholic, Protestant, and Jewish—Dr. Sherman said: Of the hallucinations in the Protestant group, 57 per cent pertained to religion; in the Catholic group 27 per cent pertained to religion; whereas none was found in the Jewish group. Of the total number of grandiose delusions (abnormally high self-esteem), the percentage distribution was as follows: Protestant, 55; Catholic, 39, and Jewish, 6. Of

the somatic delusions (wherein the patient imagines himself diseased), the percentage distribution was Protestant, 40; Catholic, 44, and Jewish, 16. Of the paranoic trend (delusions of persecution), Protestant, 44; Catholic, 40, and Jewish, 10. Of the group of patients studied, Dr. Sherman also found that women had more religious delusions than men and more frequently imagined they were sick. On the other hand, the men patients, suffered more from delusions of grandeur. The explanation for this difference, he said, lay in the fact that life, for man, was more complex, his social problems more numerous and difficult, his contacts with others in daily competition commoner. To escape from consequent frustrations and rebuffs, he tended to place an unreasonably high valuation on himself. Woman, however, was engrossed with herself—hence her bodily delusions.

Protection of Infants' Eyes from Blinding Ailment.—According to the U. S. News, the tragic malady of babyhood, "babies' sore eyes," has begun to show evidence of retreat in Pennsylvania. This is the result of active campaigning of the State Council for the Blind; better care of babies' eyes at birth; more skilled medical and nursing care for those who have not been properly protected at birth and have developed ophthalmia neonatorum.

The State Council for the Blind is investigating the method and efficacy of treatment followed by every hospital in the State in which cases of this type are admitted to determine methods that result in the highest percentage of cures. It is the opinion of the Council if there were perfect compliance with the mandatory ruling of the State Department of Health concerning proper prophylaxis at birth the number of infants who develop the diseases would be a minimum.

Dr. J. Norman Henry, Director of Health, Philadelphia, states that 25 per cent of children attending school have defects of the eyes of sufficient gravity to require the attention of an eye physician.

The progress of every child at school depends in a great measure upon his ability to see. Backwardness, delinquency, misbehavior, and tardiness on the part of many school pupils may be due to their inability to see clearly.

Parents should not wait until the medical inspectors of the Division of School Inspection notify them of visual defects in their children, but should seek a complete eye examination at once by an eye physician of those children who hold their heads close to their books or papers, who hold their heads to one side when reading, who have twitchings of the muscles of the face, and particularly those who have strabismus.

All cross-eyed children or those who have a tendency for cross-eyes should be examined and treated immediately. A very large proportion of cases of defective vision may be corrected immediately by the prescribing of glasses.

Dr. Theodore B. Appel, Secretary of Health of Pennsylvania, states "The correction of visual defects is not only essential for the welfare and comfort of the children, but is a decided factor in reducing public health and school costs. Invariably pupils having defective vision are found in numbers among repeaters which, when considered as a whole, create a large school cost item. Local organizations and school boards are therefore being urged to follow up pupils showing serious visual defects. Such a course represents not only splendid health conservation but cost conservation also."

Tuberculous Negroes.—In proportion to population, 3 times as many U. S. Negroes as U. S. whites die of tuberculosis. No one definitely knows why. Probably the Negro has not yet acquired resistance to the disease, or has been less protected by medicine. Whatever the explanation, the National Tuberculosis Association last February started to attack tuberculosis among U. S. blacks. First step was to declare officially that the country contains 2 kinds of Negroes—poor southern country Negroes and less poor northern city Negroes. Northern Negroes show more tuberculosis than southern Negroes. The Association is attacking Northern conditions first—upon advice of its special investigator Dr. Cameron St. Clair Guild, a Nova Scotian who has become expert on Southern U. S. public health. The Rosenwald Fund, builder of schools for rural Negroes, is paying for tuberculosis control among the race.

According to Dr. Guild, the country Negroes in 13 southern states number 6,000,000 (2,000,000 more live in southern towns and small cities). Psychologically they are very different from the Negro of northern cities. They have little race consciousness, "pitifully small cash income. . . . With few exceptions they live in areas which are unable to finance adequate tuberculosis control measures. . . . Several of the states listed make no provision whatever from State funds for sanatoria for either white or colored patients, and in most of the others such service is gravely inadequate."

City Negroes have congregated chiefly in Baltimore, Chicago, Cincinnati, Cleveland, Columbus, Detroit, Indianapolis, Newark, New York, Philadelphia, Pittsburgh, Washington—"communities most of which are financially able to provide whatever may be needed in the way of control measures." These Negroes, numbering about 1,500,000, "intensely race conscious," have higher tuberculosis death rates than their rural southern cousins. But they are handier to deal with. As prime examples of tuberculosis prevention among Negroes, the National Tuberculosis Association points with pride to: Philadelphia's Henry Phipps Institute, the best, "the center for research work among Negroes." Detroit, which "has no waiting list for sanatorium treatment. Patients either white or colored are admitted without delay. . . . An unusual development is the existence of several small hospitals and sanatoria for Negroes with tuberculosis owned and operated by Negro physicians, and staffed by Negro physicians and nurses."

Knoxville "now appears to have as well balanced a program for the control of tuberculosis as any city in the south, and certainly no Southern city of like size is likely to surpass it."—*Abstract from "Time."*

Alleged Malpractice.—Physicians in a number of states have been informed that malpractice insurance premiums have been raised—in many instances more than doubled. This is another by-product of the depression.

At least one type of lawsuit is avoidable, in spite of the fact that their increased incidence is due to former patients looking for "easy money" from the physician who has remained a vulnerable member of society. We should remember that many collection suits now, if won, would yield naught but a worthless judgment. In some of these instances the procedure will only devise mischief for the defendant's idle hands. He may reply with a counterclaim of malpractice, groundless or not. There is special danger among dissatisfied patients who would prefer an allegation of malpractice to a fair settlement of the bill. Danger also exists among the un-

scrupulous ones who would resort to any meanness to procure a judgment against a responsible physician or insurance company.

Now, more than ever before, it would be better to contact the patient tactfully—personally if possible. A frank discussion of pertinent facts, and the signing of a note or declaration of a moratorium, would ultimately yield more money and preserve the good will upon which the private practice of a profession depends. Why send good money after bad, lose valuable time, create ill feeling, and court litigation?—*Colorado Med.*, July, 1933.

Sale of Valerian Curbed.—The use by racketeers of valerian in the construction of stench bombs and in the sabotage of foodstuffs has resulted in a new order for the control of its sale by the Department of Health of New York City. Commissioner Wynne said that the action was taken at the request of the Police Department.

Under all the new regulations, valerian and all its derivatives may be sold only on prescription by licensed physicians and veterinarians. All manufacturers of the drug or any proprietary medicine in which it may be used must state the specific amount of the drug in each container of medicine. Manufacturers and druggists also are required to keep a complete record of the amount manufactured, the amount used in medicines, and the name of the person to whom it is sold.—*N. Y. Times*.

Finishing the Job in Diphtheria Prevention.—Donald B. Armstrong, New York City, states one is indeed tempted to prognosticate the complete eradication of diphtheria though that is perhaps too much to hope for, if other diseases for which we have a specific preventive, such as smallpox, may be taken as a reliable guide.

It is encouraging to note the evidence of accomplishment that can be found in our national experience. Based on the records of the 17 millions of industrial policyholders of the Metropolitan Life Insurance Company, where the diphtheria mortality for 1932 was at a minimum for all time, they are now able to report that up to June, 1933, they have experienced a still further reduction which is reflected in a rate of about 50 per cent of that for the preceding year. Going back a few years, the contrast as measured in death claims is perhaps even more impressive. In 1911, the company paid a total of \$119,827 in death claims as a result of diphtheria, or at the rate of \$7 for every \$1000 disbursed in claims. If the 1911 diphtheria death rate had prevailed, the company would have disbursed in 1932 a total of \$700,677. But the actual amount disbursed in 1932 was only \$101,001, or at the rate of \$1.75 per \$1000 in contrast to \$7 per \$1000 in 1911.

In 1922, Dr. Frankel, for the Metropolitan Life Insurance Company, sent out an inquiry to 310 of the leading health officers of the country, asking them whether they were using the Schick test or toxin-antitoxin, or whether they were planning to develop a campaign for diphtheria immunization. Only 151 of these health officers, or less than half, replied in the affirmative. Among the negative answers one from a prominent health officer was typical of the majority. He stated that he had little faith in the Schick test or in the ability of physicians to give it or read it. He believes that the problem in the future would revolve around the giving of antitoxin early in cases of diphtheria. He stated that he had not given toxin-antitoxin, was not planning to do so, and was not interested in its application to the diphtheria problem. Obviously we

have come a very long way since either 1911 or 1922 or 1925.

The coöperating agencies once gave wide publicity to a very stimulating and helpful slogan forecasting a time when we would have "no more diphtheria." While we have not attained that goal, and while we may never in our time quite accomplish it, yet the disease can be reduced to a completely negligible one, and the lines of approach to this objective are now fairly clear. The work of immunization must be carried on and indeed will remain for an indefinite time, a perpetual job for health departments, for medical societies, for practicing physicians, and for health educational agencies.

In the war against this disease, one can now see that there have been thus far 3 principal stages. (1) There was the early school campaign. (2) Preschool, semi-campaign, still employing organized community and collective machinery, but constituting a more direct attack upon the important age group. This preschool approach was characterized by a greater degree of private medical participation, and by the encouragement of immunization on the part of the family physician. There also came in here the newer varieties of so-called toxoids, gradually replacing toxin-antitoxin. (3) The third stage that of the approach to infancy, and the effort to conserve our resources by immunizing, as a regular procedure, the infant about the time he loses his congenital protection, and before the likelihood of exposure to epidemic disease. Even this period has involved some organized clinic approach and must continue to do so. This aspect of the attack, however, has been and must be in the future, worked out more along personal lines, being characterized by more intensive approaches to the family physician, more direct education of the parent, and a greater effort to incorporate the procedure into the routines of private medical practice and of family medical custom and tradition.

Certain measures and certain points of emphasis seem characteristic of this present stage.

1. The private physician in his relation to the family, must be encouraged to play a greater part in the immunization of the infant in the home. To a greater extent, it must become a part of his routine practice and at the same time an acknowledged procedure on the part of the family. There is usually no reason, for instance, why the doctor, when he vaccinates the child, cannot also at the same time give the first diphtheria immunization; or if that, for any reason, seems undesirable, he can at that time make a definite engagement for immunization at a little later date.

2. On the side of organization, it is obligatory on the part of our health departments that they recognize for themselves here a more or less unlimited and practically permanent program.

3. There is little question but that, in certain sections, campaign methods may need to be revived or reestablished. The State Health Department and the coöperating agencies will of course know where those weak spots are in the diphtheria incidence and mortality maps, where rates are high or show a tendency to increase.

4. There is no doubt that the Health Department will continue to recognize that the voluntary and private health and medical groups are still deeply interested in this field, still active in their desire to do their part in this program. The Department should no doubt continue to be willing to use such voluntary assistance, not only in the above mentioned occasional necessities for campaign revivals, but also in carrying out the continuous education among parents, physicians, and others that is so necessary if this third stage of our program is to

be carried out successfully, and is to be established on a more or less permanent continuing basis.

5. There is, finally, one development that is being watched with great interest and that may turn out to be of remarkable importance; the experiments in the direction of a single injection for diphtheria immunization, by using the so-called alum precipitated toxoid. This and similar products are being experimented with under competent supervision with favorable indications. Bad reactions from the single injection procedures seem to be at a minimum, and good results as measured in terms of subsequent negative Schick tests are reported. This contribution, if it turns out to be a practicable one, and is confirmed generally by responsible authorities, will constitute a very great step indeed toward the simplification and practicability of diphtheria immunization.—*M. J. & Record, July 19, 1933.*

Morbidity in Pennsylvania in September, 1933

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	0	0	0	13
Allentown	0	3	1	2	3
Altoona	6	0	2	1	1
Ambridge	0	0	9	0	2
Arnold	0	0	0	0	0
Beaver Falls	0	0	0	0	1
Bellevue	0	0	2	0	1
Berwick	0	0	0	1	0
Bethlehem	0	0	0	2	1
Braddock	0	0	2	0	1
Bradford	0	0	14	0	3
Bristol	3	1	5	0	0
Butler	1	0	0	0	14
Canonsburg	0	0	2	0	0
Carbondale	0	0	0	0	0
Carlisle	0	0	0	0	1
Carnegie	1	0	0	0	0
Chambersburg	0	0	0	0	0
Charleroi	0	0	0	0	0
Chester	0	1	2	0	0
Clairton	0	0	2	0	2
Coatesville	0	0	0	0	0
Columbia	0	0	0	0	0
Connellsville	0	0	4	0	0
Conshohocken	0	0	0	0	0
Coraopolis	0	0	4	0	16
Dickson City	0	0	0	0	0
Donora	0	0	1	0	0
Dormont	0	0	0	0	0
Du Bois	0	0	0	0	0
Dunmore	0	0	1	0	0
Duquesne	0	0	0	0	2
Easton	1	1	1	0	0
Ellwood City	0	0	1	0	1
Erie	0	1	12	2	11
Farrell	1	0	0	0	0
Franklin	0	0	6	0	3
Greensburg	6	0	2	0	0
Hanover	0	1	0	1	1
Harrisburg	0	0	1	1	9
Hazleton	0	0	1	0	0
Homestead	0	0	0	0	0
Jeannette	0	0	1	1	0
Johnstown	0	1	3	1	26
Kingston	0	0	0	0	0
Lancaster	0	0	4	0	9

Disease					
Locality	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Latrobe	0	0	0	0	0
Lebanon	1	0	0	0	0
Lewistown	0	0	0	0	3
McKees Rocks	0	0	0	0	0
McKeesport	0	0	2	2	2
Mahanoy City	0	0	0	0	0
Meadville	0	1	0	0	0
Monessen	3	0	1	9	0
Mount Carmel	0	0	2	0	0
Munhall	0	0	0	0	0
Nanticoke	0	0	3	0	0
New Castle	1	0	0	1	2
New Kensington	0	0	0	0	0
Norristown	0	0	2	0	0
North Braddock	0	0	0	0	1
Oil City	0	0	3	0	0
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	0
Philadelphia	1	20	73	4	42
Phoenixville	0	0	0	0	0
Pittsburgh	19	3	35	2	127
Pittston	0	0	0	0	0
Plymouth	0	0	1	1	2
Pottstown	0	0	1	0	0
Pottsville	0	0	0	0	0
Reading	1	1	3	0	20
Scranton	1	1	4	0	12
Shamokin	0	0	0	0	0
Sharon	0	0	0	1	2
Shenandoah	2	0	0	0	0
Steelton	0	0	0	0	0
Sunbury	0	0	0	0	0
Swissvale	2	1	0	1	0
Tamaqua	0	0	0	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	0	0	0	2
Uniontown	1	0	2	1	1
Vandergrift	0	0	1	0	5
Warren	0	1	0	0	0
Washington	0	0	1	0	3
Waynesboro	0	0	0	0	0
West Chester	0	0	0	0	1
Wilkes-Barre	5	1	3	0	7
Wilkesburg	0	2	0	3	3
Williamsport	0	0	2	0	6
York	0	1	2	0	2

Townships					
Locality	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Allegheny County:					
Harrison	0	0	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	0	1	0	0
Delaware County:					
Haverford	0	0	2	0	9
Upper Darby	1	0	1	1	6
Luzerne County:					
Hanover	4	0	2	0	2
Plains	2	0	2	0	2
Montgomery County:					
Abington	0	0	1	0	0
Cheltenham	0	0	0	0	1
Lower Merion	0	1	0	0	0
Total Urban ..	63	42	233	38	384
Total Rural ..	90	36	356	131	351
Total State ..	153	78	589	169	735

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

IN A recent number of Tuberculosis Abstracts, Dr. Esmond R. Long summarized the papers presented before the Pathological Section at the annual meeting of the National Tuberculosis Association held in June, 1933. In this issue, Dr. Iago Galdston of New York renders a similar service by pointing out the high lights of the discussions of the Clinical Section.

CLINICAL PROGRESS IN TUBERCULOSIS

In reviewing the clinical material presented during the 29th Annual Meeting of the National Tuberculosis Association, one is deeply impressed with the fact that the "reaping" stage in tuberculosis progress is now passed and that we have entered upon what might be called the "gleaning" stage.

The advances which we have witnessed during recent years in tuberculosis are largely the result of careful combing of old territories, of critical evaluation and of more skillful application of technics and procedures which in some instances have been known to us for several decades.

Advances in Lung Surgery

As an illustration of this, we may take the marked advance which has been made in the application of surgery in the treatment of pulmonary tuberculosis. Heretofore surgical treatment of tuberculosis of the lungs has been a rather rare procedure, applied only when other methods failed to produce the results desired. Nowadays surgery is as common as any other form of treatment and is used in conjunction with the rest. In some institutions, as many as

70 per cent of the patients are surgically treated.

The surgical procedures consist of pneumothorax, phrenicotomy, apicolysis, and thoracoplasty. Is it not illuminating that the oldest of these procedures, pneumothorax, was originally suggested by Forlanini in 1882, the very same year in which Robert Koch revealed the tubercle bacillus? The other surgical procedures, with which the names of Sauerbruch, Archibald, Alexander, and others are associated are also of relatively long standing. These procedures have been known for years but only recently have we begun to apply them with any measure of frequency.

This more frequent and wider application of surgery to tuberculosis of the lungs is undoubtedly due to the general progress which has been made in the field of surgery. The improvements in roentgen-ray technic, the wider choice of anesthetizing agents, and better general surgical technic render surgery in the treatment of tuberculosis of the lung comparatively safe and markedly effective.

Tuberculosis Among Negroes

Progress in this field was reported by Dr. Henry D. Chadwick, *et al.*, in a paper entitled

"Collapse Therapy in Treatment of Pulmonary Tuberculosis in Negroes." This paper was based on a study of 464 Negroes having pulmonary tuberculosis who were hospitalized during the period from January, 1931, to September, 1932.

Treatment consisted of bed rest supplemented by collapse therapy procedures, which were used in 70 per cent of the cases. Of the patients discharged 28 per cent were arrested and 58 per cent died, but, including those who are still under treatment, favorable results were obtained in 53 per cent. This is an excellent record when we note that on admission 23 per cent were moderately advanced and 67 per cent far advanced, or 90 per cent had advanced beyond the minimal stage before treatment began.

Tuberculosis Among Indians

A very solid proof of the effectiveness of the anti-tuberculosis measures now furthered by our tuberculosis societies was presented by Dr. R. G. Ferguson in his report on "The Indian Tuberculosis Problem and Some Preventive Measures." According to Dr. Ferguson, in 1931 there were 672 deaths from tuberculosis among the Indian population of Canada. This number represents a tuberculosis death rate of 547 per 100,000, a rate $7\frac{1}{2}$ times the average for the total population of Canada. By the application of standard anti-tuberculosis measures on the Qu'Appelle Indian Health Unit, it was possible to reduce the tuberculosis death rate of this group of Indians to approximately one-half of that rate for the Indian population of Saskatchewan.

Fungous Infections

Returning again to our original thesis, namely, that we have come to the "gleaning" stage of tuberculosis, we may use as a further illustration, the excellent contribution that was made by Dr. David T. Smith of Durham, North Carolina, on the "Diagnosis and Treatment of Common Fungous Infections of the Lungs."

For more than two thousand years, from the time of Hippocrates to the time of Laennec, physicians were at a loss to differentiate between true tuberculosis and those other morbid condi-

tions of the lung which give clinical signs and symptoms closely resembling those of tuberculosis.

Laennec with his stethoscope and with his clinical description of the tuberculous process as shown in the cadaver at postmortem, singled out tuberculosis and separated it from other conditions. However, to this very day, we find tuberculosis confounded with other pathologic conditions and notably with fungous infections of the lung. The fungous infections of the respiratory tract represent a field in which much study remains to be done. As Harry P. Jacobson so aptly says in his recently issued volume "Fungous Diseases—A Clinical Mycological Text": "It is not at all extravagant to predict that the immediate future holds in reserve a respectable place for the science of mycology—a place commensurate with the importance of the clinical problems which the pathogenic vegetable fungi are known to cause."

On the diagnostic side of tuberculosis and related conditions of the chest, progress has been made in the field of bronchoscopy and in the wider and more skillful application of the roentgen ray.

Dr. Louis Hamman's paper on "Malignancy of the Lungs and Pleura" and Dr. Kirklin's paper on "Roentgenologic Diagnosis of Mediastinal Lesions" dwelt upon this phase of the subject.

An extremely interesting contribution was presented by Dr. Leo Eloesser of San Francisco, California, in his paper, "Bronchial Stenosis in Pulmonary Tuberculosis." This represents a phase of lung pathology which has not heretofore been much appreciated. Dr. Eloesser's paper, which was beautifully illustrated, made an impressive discourse on the subject.

The papers of Drs. Chadwick, Hamman, and Eloesser will appear in forthcoming numbers of the *American Review of Tuberculosis*. Papers or abstracts of the papers of Drs. Smith, Ferguson, and Kirklin will be published in *Transactions of the National Tuberculosis Association*, 1933.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

Minutes and Proceedings of the Eighty-Third Annual Session, Philadelphia, Oct. 2 to 5, 1933

MINUTES OF THE HOUSE OF DELEGATES

Monday Afternoon, Oct. 2, 1933

The first meeting of the House of Delegates was called to order in the Banquet Hall, Bellevue-Stratford Hotel, Philadelphia, Pa., on Monday, Oct. 2, 1933, at 3:20 p. m., by the president, Charles Falkowsky, Jr., Scranton.

DR. FALKOWSKY, JR.: Gentlemen, this eighty-third annual session of The Medical Society of the State of Pennsylvania will please be in order. We will first listen to the preliminary report of the Chairman of the Committee on Credentials, Dr. J. Newton Hunsberger.

J. NEWTON HUNSBERGER, Norristown: Mr. President, we have approximately eighty-eight delegates registered.

THE PRESIDENT: As this constitutes a quorum the meeting is now in order and we will dispense with the roll call. The next order of business is the presentation, correction, and adoption of minutes of the eighty-second annual session.

SECRETARY DONALDSON: The minutes of the eighty-second annual session were published in the November, 1932, issue of the PENNSYLVANIA MEDICAL JOURNAL. The secretary has never received any notice of correction and if there is none a motion for adoption of the minutes is in order.

GEORGE C. YEAGER, Philadelphia: I move that the minutes be adopted as published in the JOURNAL.

The motion was seconded by Curtis C. Mechling, Pittsburgh, and unanimously carried.

THE PRESIDENT: Gentlemen, I wish to impose myself on you for a moment to remind you of the fact that this medical organization in the past year has assumed a fixed place in the body politic. The calls for our co-operation are constantly becoming more numerous and insistent in every line of endeavor. We have had a rather difficult and trying task, not only for the officers but for the members of the Society, but I feel that medical organization by exercising self-restraint can now dictate all future policies that are in any way dependent upon our profession for their execution and culmination. The policy of your officers including the trustees has been one of construction and not destruction, not ballyhoo or demagoguery. We have gone in for dignified publicity and not scare headlines. A perusal of our proceedings I am sure will bear this out. We have gone in for open and frank discussion of the problems confronting our profession. A close study by

every one of you of the work of our various component societies, particularly the magnificent work of the Philadelphia County Society, should be enlightening. I think it will pay every man in Pennsylvania to know the various economic studies that have been made by that organization and the wonderful work they have done and what they have accomplished. I think no other representative society group has done greater work than the Committee on Economics of the Philadelphia County Medical Society. It has been a tremendous piece of work, but of course its findings may not apply to all counties, because of the local economic differences that may exist.

Voluntary coöperation until it hurts has been the guiding principle of your Board of Trustees. This has caused us to be called upon to act in an advisory capacity—in all types of quasi-medical endeavor. Our State Department of Health, our State Department of Welfare, with its State-owned and State-aided hospitals, and other activities have asked our constant co-operation. The State Emergency Relief Board frequently consults with representatives of our State Medical Society. This has grown so that in its study of plans by which medical men, who have for three years been treating the unemployed without compensation, may soon be recompensed, our Society has been consulted.

Representatives of our Society have consulted with a Committee on Compensation appointed by the Governor who are studying Pennsylvania's Workmen's Compensation Laws.

Another piece of work adopted was that of the so-called Child Health Committee. Many members of the State Society have a peculiar idea concerning this endeavor. They seem to think it is entirely a State Medical Society activity. It is not. The State Medical Society simply sponsors it and tries to be its guiding star. There is no expense to our Society. When it was conceived by Governor Pinchot and some of our pediatricians, we volunteered to coöperate and provide the medical leadership. To me this is a wonderful opportunity. Most men think it has only to do with periodic health examinations. Not at all. It is an effort to see if malnutrition really exists and if so to do something to prevent and correct it. This movement has gained marvelous impetus in the last few months, so much so that if you read the papers you will know that the Federal Secretary of Labor, Miss Perkins, has commended this as a national movement and mentioned Pennsylvania as being in the forefront in the work. If any criticism is to be made the criticism must be aimed at

me, for I felt that we should accept this responsibility, and the Board of Trustees have backed me up wonderfully well. Now that so many county Child Health Committees are functioning so well under medical leadership, and we are beginning to get results, I think more than ever the work should be encouraged.

One thing I have noticed in my work during the year as President is that many of the members of the Society are somewhat ignorant of the method of functioning of this organization. They do not seem to realize that the members of the Board of Trustees are elected by and act under the instruction of the House of Delegates, and administer the policies of the Society in the interim between annual sessions. The Secretary, who must bear much of the burden of all this, is to me a most wonderful person, and how he can retain his dignity and accomplish all he does is beyond my comprehension. Your President, in addition to his official duties, has in recent years become what used to be called in the good old days, "a customer's man," who must go out and sell to medical and other groups approved proposals.

The Educational Committee of the Board of Trustees has performed a monumental work.

I request every one of you to read the report of the Committee on Economics.

I wish to say to you that under the circumstances last year I deemed it advisable to associate the economics committee with the Public Relations Committee. Now that it has functioned for a half year I feel that is where it belongs. I think it will function much better there.

In your study of committee reports that of our legislative committee must not be overlooked. We have had two sessions of the Pennsylvania Legislature since our last annual meeting, and members of the Legislature frequently seek of our committee information and advice regarding proposed health legislation.

One thing that impressed me greatly during the last year was the presentation, at some of the councilor district meetings of framed testimonials signed by your president and secretary, and the councilor for the District, to members who had practiced medicine in the district fifty years or more. It certainly was delightful to witness the tribute thus paid to those elderly gentlemen who had served their community, practicing so diligently for so many years, and I hope the plan will be continued.

All I ask now is that you give my successor the same response and the unstinting support you have given me, and to bear in mind that in every effort we must fully comprehend that our social order rests not upon economics, but that its foundation is entirely moral, and when that self-seeking strain inherent in most of us tends to become pathologic we must always and everywhere subordinate it to the ideals of human service.

The next order of business is the announcement of the various Reference Committees by the Secretary.

SECRETARY DONALDSON: The President-elect, Dr. Guthrie, has chosen the following reference committees to serve this year in the House of Delegates:

Committees of the 1933 House of Delegates

COMMITTEE ON CREDENTIALS

J. Newton Hunsberger, Norristown, *Chairman*.
Thomas R. Gagon, Pittston.
John A. Campbell, Williamsport.

REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND STANDING COMMITTEES

Arthur H. Gross, Bellevue, *Chairman*
Ralph L. Hill, Wernersville.
John A. Farrell, West Chester.

REFERENCE COMMITTEE ON SCIENTIFIC BUSINESS

Charles F. Nassau, Philadelphia, *Chairman*.
John F. Culp, Harrisburg.
James D. Stark, Erie.

REFERENCE COMMITTEE ON NEW BUSINESS

Paul J. Pontius, Philadelphia, *Chairman*.
Le Roy C. Waggoner, Brownsville.
John W. Barr, Johnstown.

COMMITTEE ON PLACE OF MEETING

George L. deSchweinitz, Bethlehem, *Chairman*.
Charles L. Johnston, Catawissa.
Joseph D. Findley, Altoona.

I would like to add, if I may, that committee rooms have been provided on the first floor for hearings and meetings of the Reference Committees, and stenographers will be available.

I would like, if I may, to make an additional announcement regarding the certification of railroad certificates. You all know that unless we get a minimum of 100 of these certificates properly approved at the registration desk they all become worthless. Even if it means but a few cents to one of you, it may mean several dollars to some other member of the society who comes from the western end of the State, so please take the trouble to have your certificate properly validated at the registration desk.

THE PRESIDENT: I wish the delegates would keep in mind the time and place of meeting of the Reference Committees and determine any matter you wish to bring before them so that it may receive attention.

Have you any further report, Mr. Secretary?

SECRETARY DONALDSON: Supplementary to the report published in the Handbook I have none.

THE PRESIDENT: The Treasurer's report is published in the JOURNAL and the Handbook.

The next item is the report of the Board of Trustees and Councilors. Have you any further report, Dr. Buyers?

EDGAR S. BUYERS, Norristown: I have nothing to add to the report published in the Handbook.

THE PRESIDENT: The reports of the Secretary, Treasurer, and the Board of Trustees, all excellent, will be referred to the Reference Committee on Reports of Officers and Standing Committees.

Have the Chairmen of any other standing committees any supplementary report at this time?

JOSEPH J. MEYER, Johnstown: In addition to the report as published on page 167 of the Handbook, the Committee to Confer With Private and Governmental Health Agencies has received two requests, one from the American Red Cross and another from the State Hospital Association and the Department of Welfare concerning the rules and regulations for hospitals. I wish to turn these over to the secretary to use in part or in full in the JOURNAL.

THE SECRETARY: I think those should become a supplementary report from your Committee.

THE PRESIDENT: We will refer those communications to the Committee on Reports of Officers and Standing

Committees as a supplementary report, and all other published reports to appropriate Reference Committees. Are there any other supplementary reports from any of the committees, gentlemen? Hearing none we will proceed with the next order of business, which is reading of correspondence.

SECRETARY DONALDSON: I have nothing to present, Mr. President.

THE PRESIDENT: There being no unfinished business we will proceed to new business. Have any of you anything to present under the head of new business?

GEORGE C. YEAGER, Philadelphia: I wish to present the following resolution:

RESOLUTION

Be It Resolved, That a campaign against the increasing mortality of acute appendicitis be inaugurated in this State by The Medical Society of the State of Pennsylvania for the following reasons:

1. The mortality is exceedingly high in the majority of the larger cities of Pennsylvania.
2. The mortality is controllable. The greater part is due to delay in hospitalization, and the giving of laxatives.
3. The mortality can be reduced by legitimate publicity, as shown by the results obtained in Philadelphia during the past three years.

THE PRESIDENT: If there is no objection, this resolution will be referred to the Reference Committee on Scientific Business. Is there any further new business?

JOHN A. FARRELL, West Chester: I have been very signally honored by being placed on the Reference Committee on Reports of Officers and Standing Committees. I know every man in the room has come here with something definite in his mind to say to these men. I remember several years ago I used to come to these meetings and everything would go along beautifully, as now. I know there is something in all these reports that should have the consideration of these men. I came before this organization two years ago and told you that the State of Pennsylvania was going to place a physician in certain State teachers' training institutions, and asked for information as to the position of this organization on such practice. I came back last year and asked the same question, and nothing happened. Such a physician was appointed to the State Teacher's College located in Chester County, and he later sought admission in the Chester County Medical Society, but because we believed he was not acting in accord with our ethics our organization refused to accept him.

I would like to have this organization, before we adjourn on Wednesday, very definitely establish just what is contract practice and just who may be entitled to membership and remain affiliated with the various forms of contract practice.

I wish to make this statement at this time so every one will know what will be up for consideration by this organization next Wednesday morning.

THE PRESIDENT: Thank you, Dr. Farrell. I wish every man here would take as much interest in the affairs of the organization as Dr. Farrell does. Now is the time to bring this matter and all other pertinent questions before our Reference Committees so that we may have action on Wednesday morning. You are all able to speak English, and if any one loves an argument I do, so let us try to get the other fellow's point of view.

Is there any other new business?

SECRETARY DONALDSON: I wish to call attention to a paragraph on page 122 of the Handbook, in the report of the Chairman of the Board of Trustees. He points out in the third paragraph that at the February meeting of the Board, J. M. Quigley, of Clearfield, was present and given the privilege of the floor. Dr. Quigley

asked for the creation of a separate Scientific Section, to be known as the "Section of School Physicians," stating that it would increase the attendance at the annual meetings and tend to develop higher ideals and better work in this phase of preventive medicine. After a free and complete discussion, the Board unanimously adopted a motion referring the request to the 1933 House of Delegates, with a negative recommendation for the proposed separate section, but with the suggestion that the Pediatric Section coöperate with the School Physicians' Association in presenting subjects of general interest to the physicians composing the Chapter of the American Association of School Physicians.

I may say, Mr. President, that the Section on Pediatrics has so coöperated, with an afternoon program devoted to such subjects. I would suggest, if I may, that this recommendation from the Board of Trustees be referred to the proper committee for action.

THE PRESIDENT: I will refer this report from the Board of Trustees to the Reference Committee on New Business, to report on Wednesday morning.

Is there any further new business?

SECRETARY DONALDSON: There are two proposed amendments to the By-laws, published on page 104 of the Handbook, proposed by past President William H. Mayer.

The first refers to Section 3, Chapter VI, and perhaps it would be well for me to read the entire section as it now stands. (Read Section 3, Chapter VI.) The proposed change is that the appointments by the President to the Committee on Public Relations "*shall be subject to and contingent upon the approval of the Board of Trustees.*"

WALTER S. BRENHOLTZ, Williamsport: I move that this proposed amendment be adopted.

The motion was seconded by Dr. Thomas R. Currie, Philadelphia.

JOHN D. McLEAN, Philadelphia: May I ask what effect this will have on the committee?

THE PRESIDENT: Will Secretary Donaldson please explain this?

SECRETARY DONALDSON: I suspect that Dr. Mayer had in mind that the personnel of committees as important as this should not only be the child of the brain of the President, but should also be considered by the Board of Trustees before being finally accepted. Beyond that I have no interpretation of this proposed amendment, and Dr. Mayer is not present.

THE PRESIDENT: That is really the only interpretation we can put upon it. The idea, as I got it from Dr. Mayer, who has been working very hard on these things during the year was just that. The Board of Trustees, after all, direct the interim policies of the Society, not the President, and they feel that the Board of Trustees should have more interest in this Committee on Public Relations, whose work and influence are growing by leaps and bounds.

All those in favor of the adoption of this amendment to our By-laws respond by the usual sign.

The amendment was adopted.

SECRETARY DONALDSON: The next proposed amendment applies to Section 4 of the same Chapter, and I dare say has the same underlying background that we have just discussed. It applies to the Committee on Public Health Legislation, and makes no change, except that the appointment by the President to this Committee "*shall be subject to and contingent upon the approval of the Board of Trustees.*"

THE PRESIDENT: The idea there is just the same as the other, to keep the Board of Trustees in contact with the members of the committee, to prevent any possible suggestion of influence.

SECRETARY DONALDSON: I may say, if I may, that after fifteen years of service in my capacity I have never seen the time that such action was necessary, but nevertheless I think it is a good plan.

CURTIS C. MECHLING, Pittsburgh: Is it not the custom to have these proposed amendments referred to a reference committee to report back at another meeting? I arise for information.

THE PRESIDENT: I think it is not, under these circumstances, where the proposed changes have been duly published.

THOMAS R. CURRIE, Philadelphia: I move that the amendment be adopted.

JOHN A. FARRELL, West Chester: Today we are sitting here as a legislative body. We have a perfect right to change the Constitution and By-laws if we wish. It has nothing to do with the body politic. You are making a law that is going to govern the organization and we have a perfect right to pass laws.

SECRETARY DONALDSON: Where proposed amendments have been published in the JOURNAL, as required by our By-laws, it is not necessary to refer them to a Reference Committee for action by the House.

Dr. Currie's motion was seconded.

CURTIS C. MECHLING, Pittsburgh: I have no criticism to offer, it seems to me only a matter of regularity.

G. T. LAMON, New Kensington: I propose to vote against this amendment and wish to say a few words before doing so. This apparently innocuous amendment anticipates future trouble and tries to avoid it. In the future decades there will probably be many matters on which we will be divided; for instance, state medicine, sick insurance, and matters of that kind. Therefore, any action which would prevent a fair exposition of the opinion of the current House of Delegates would result, perhaps, in this committee not being representative of the thought at that time. If the Trustees must approve all appointees of the President, it is possible that the committee may be made up so that the opinion of that time may not be properly represented. This is again repetition of what we have seen so recently in the prohibition amendment in our Federal Government. Let us keep this committee flexible, let us make it readily responsible to the men who elect the president of that year.

THE PRESIDENT: Is there any further expression of opinion? If not, all those who favor the adoption of this proposed amendment in Section 4, Chapter VI, please respond by the usual sign.

The amendment was adopted.

THE PRESIDENT: Still under new business, is there anything further? I wish some of you would rise and suggest things for these committees to do. We want to keep them working, and I know there are many things you would like to discuss.

JOHN D. McLEAN, Philadelphia: When do we discuss and fix the question of assessment?

SECRETARY DONALDSON: That is a recommendation from the Board of Trustees which comes under new business on Wednesday.

JOHN A. FARRELL, West Chester: I would like to know what Dr. McLean has in mind.

JOHN D. McLEAN, Philadelphia: It seems to me there are a good many things to discuss on Wednesday.

We have a few minutes now and if the Board of Trustees has some recommendation why not discuss it now when we have the time to do it.

THE PRESIDENT: I will ask the Secretary to please report.

SECRETARY DONALDSON: That committee, the Finance Committee of the Board of Trustees, this morning recommended that the coming year's dues be fixed at \$7.50 with the usual allotment to the Benevolence Fund of \$1.00 and 25c to the Medical Defense Fund. That recommendation of the Finance Committee was approved unanimously by the Board of Trustees, and in the absence of Chairman Anderson, although Dr. Bishop, a member of the committee, is here, I make this report at this time, Mr. President.

JOHN D. McLEAN, Philadelphia: Does this place it before the House for discussion?

THE PRESIDENT: We can discuss it if it is the wish of this House.

JOHN A. FARRELL, West Chester: I move you that we discuss this matter at this time.

The motion was seconded and carried.

JOHN J. BRENNAN, Scranton: I move that the recommendation of the Board of Trustees be approved.

Motion seconded by Dr. John A. Farrell, West Chester.

WALTER S. CORNELL, Philadelphia: As President of the Philadelphia County Medical Society with 2000 members, plenty of whom have made the remark that paying the dues is a great burden, I feel it is my duty to ask the officers, in whom I have the greatest confidence, just how this amount of money received every year is used. Are we accumulating money year after year, and if so, have we reached the point where our surplus is more than we need?

JOHN D. McLEAN, Philadelphia: I notice in our Constitution and By-laws that the Board of Trustees may set aside \$1.00 of our annual dues for the Medical Benevolence Fund. In referring to the published report we find that our officers have done something not many business men have done in the past year: they have been able to add to the principal of this Fund. The Medical Benevolence Fund, on September 1, 1932, had \$14,929.08, and to that they added \$4,572.50 interest on investments and \$636.20 interest on deposits. Of this they paid out \$4,572.50, so they received on interest from their investments more money than they paid out in benevolence. Out of the dues we pay, this Fund received \$7650. At this time of drastic cuts in our income why cannot we do away with adding \$16,584.96 to our principal account? If in this time of depression the interest on our investment can take care of our benevolence, why do we pay so much? Our Constitution says the Board of Trustees may; why then not let the Trustees rule that they lessen our dues by \$1.00 this year, inasmuch as they have plenty of money to take care of benevolences.

SECRETARY DONALDSON: Because it is freshest in the minds of the delegates, I will answer Dr. McLean's question first. I will call your attention to the published report of the Committee on Benevolence, which sets forth that in 1929 we disbursed \$2410, and in 1933, \$5912,—\$700 more than total earnings from the principal for the year, and showing, on account of the depression, an increase of about 250 per cent spent over 1929, and probably 35 per cent over 1932. None of us believe that the economic situation has been cleared. Many of us, no doubt, believe that the Committee may be called upon this year to spend much more money,

and that those of us who are able to wear a good suit of clothes and have enough to eat should be glad to feel that \$1.00 of our dues each year has been set aside and will continue to be set aside for this beneficent purpose. Those who have served on this committee, who know the character of the appeals and the endeavors we make to meet the appeals I am sure do not wish to be robbed of the privilege of setting aside \$1.00 of their dues each year for this purpose. I grant you that the Board of Trustees, always with the sustaining vote of the House of Delegates, has accumulated a considerable fund, but, they think, not yet enough. This year we have spent approximately \$705.00 more than the income from this fund. We were able to do this because for a few years we had not spent all the income. Last year the treasury of the Benevolence Committee, which is distinct from the principal of the Fund, had approximately \$1900 left over, but now that balance has been reduced to about \$500. Due to a ruling of the Board of Trustees made years ago, nothing is spent from this Fund but its current income. However, since the Woman's Auxiliaries have stepped into the picture, and in seven years have contributed \$12,000 for benevolences, there is little danger that we may fail to meet adequately the needs of our more unfortunate members or their families.

JOHN D. McLEAN, Philadelphia: May I ask the question in a different way? Interest on investments, contributions from Woman's Auxiliary, and allotments from the membership dues amounted to somewhere around \$16,000. How much of that was spent in benevolence this year?

SECRETARY DONALDSON: The total of items you mention is approximately \$15,000; \$6000 was spent this year. The allotment from dues was placed in a savings account at interest, as were the contributions from the Woman's Auxiliary, there to remain until invested. I may say that the Board of Trustees has not deemed it advisable in recent months to invest in any securities more promising than the 3 per cent now received.

JOHN D. McLEAN, Philadelphia: Then why ask us in these hard times to contribute \$1.00 to the fund?

SECRETARY DONALDSON: Because it has been the policy not to spend anything but the interest on this Fund, and this I may add has until this year been adequate.

JOHN D. McLEAN, Philadelphia: We are therefore contributing to a fund and not to benevolence. It is building up a large reserve, that is what it is doing.

SECRETARY DONALDSON: Apparently you speak representing our members of today against the interests of the members who have grown old or infirm, and of those who have died leaving widows and children in need.

CLARENCE R. PHILLIPS, Harrisburg: I am a member of the Benevolence Committee, and I confess there was a time when I was just as much puzzled as our good friend McLean, but I wish to assure you that it was very easily straightened out in my mind, and I hope it will be straightened out in yours. We do not put the \$1.00 allotted from each of you into the money we spend, but into the fund, and when that fund has become large enough we may then cease to set aside the dollar annually. The Woman's Auxiliaries have been most generous, and are vitally interested. I wonder how they would feel if they were told that their husbands no longer give from their annual dues to the widows and orphans of our former members and to the members physically incapacitated and in need.

HOWARD C. FRONTZ, Huntingdon: I have been on this Committee for a number of years, and to me it has seemed one of the finest of the purposes of our State Society. I wish to say a few words on how demands have increased this year. We started, I think, with eleven beneficiaries a year ago. We had eight added during the year, one of whom died. We start this year with eighteen, to whom we furnish from \$25 to \$50 a month regularly. We have one member on the list who is 90 years old. He had some property years ago, but has lost everything. We heard of this through his county society. After obtaining the data, we at once gave him something, and continue regularly. He is the most grateful man from whom I have ever received a letter. He said he had to use a magnifying glass to write the letters. Certainly you do not wish to deprive a man like that of the small amount of money we give him each month, and I think, gentlemen, you should all continue in your support of this Medical Benevolence Fund.

WALTER S. CORNELL, Philadelphia: When I asked my original question, I took pains to say that it was for friendly information. What I can not understand is when we collect \$8000 and devote it to that purpose on paper why the Committee can not use that money. I think there is nothing in the Constitution to prevent taking the whole \$8000 to help these poor fellows and give them a good time.

SECRETARY DONALDSON: The Society has not been accumulating funds in recent years, except by allotments to the Benevolence and the Defense Funds. There was a time when we were a little more prosperous, and when the Society was not spending as much money as today in the study of economic problems, the development of public relations, *etc.*, when we did accumulate a little money in the General Fund; but when the Board of Trustees started it twenty-seven years ago, they visioned for the Benevolence Fund \$500,000, and the Medical Defence Fund, \$100,000, and then, when self-supporting, that we stop that plan of accumulating from our dues, and take up something else. You will remember, Dr. Cornell, that until this year our income has been large enough to take care of the applicants for help. This year we will no doubt spend directly from the Woman's Auxiliaries' contributions.

JOHN D. McLEAN, Philadelphia: I do not believe there is a man in any county society who objects to paying the \$1.00. All the men who have spoken have expressed the matter better than I have, but the point I wish to plead is that the money be used, and not accumulated in a fund during this time of depression.

JOHN M. FISHER, Philadelphia: I can not understand why we should accumulate a fund and spend only the interest. Why not spend the whole \$8000 while this depression lasts, and then begin to accumulate the fund?

SECRETARY DONALDSON: I wish to give you just a little information as to how the Committee handles the requests for assistance. We study each case to see if relatives are doing their duty toward applicants. We endeavor to ascertain other possible sources of revenue, such as fraternal connections. We realize we cannot take the entire care of many, but assure them that they will get a certain amount of cash on a definite date each month. The Committee does not handle applications lightly, but has attempted to make an unemotional but careful study in each case. I trust the House will not take disturbing action with this plan that has grown from experience, and has been handled by warm-hearted men. This year we probably will spend

the money given us by the Woman's Auxiliary, and we will probably have enough. If not, the Board of Trustees will doubtless authorize drawing from the principal to meet the demands.

FRANK N. EMMERT, Chambersburg: I think there is no one who is not willing to donate our \$1.00 to the Benevolence Fund, but that is not the question. We could deduct from the general fund instead of the Benevolence Fund.

GEORGE C. YEAGER, Philadelphia: I think there are but few requests of the Benevolence Fund from Philadelphia County. I think we should leave the assessment as at present for this reason. We take care of those in need largely through our own relief organization. If this House reduces the State Society assessment, we are going to have an increased demand from a small but noisy minority for a reduction in our county society dues, and we, like the State Society, need all our funds to take care of the various other activities the Philadelphia County Society is carrying on. I think it would be a mistake to reduce the assessment.

JOHN D. McLEAN, Philadelphia: In discussing this amount we have just mentioned the Benevolence Fund. There are other funds which probably would influence our action, but we have no right to discuss them before we hear from the Reference Committee.

I move to lay this motion on the table for discussion on Wednesday morning.

JOHN A. FARRELL, West Chester: I will second the motion.

The motion was put to a vote and lost.

THE PRESIDENT: Gentlemen, we now return to the original motion, that the annual dues, as recommended by the Board of Trustees, be adopted.

The motion was adopted.

THE PRESIDENT: If there is no further business I will announce the time of the next meeting of the House of Delegates at 9 a. m., Wednesday, in this room.

Will the Chairmen of the various Reference Committees please announce the time and place that their committees will meet?

The time and place of committee meetings were announced by the various chairmen, and the House of Delegates adjourned at 5 p. m.

CHARLES FALKOWSKY, JR., *President*,

WALTER F. DONALDSON, *Secretary*,

HENRY G. MUNSON, *Assistant Secretary*.

Wednesday Morning, Oct. 4, 1933

The second meeting of the House of Delegates was called to order in the Banquet Hall, Bellevue-Stratford Hotel, Philadelphia, on Wednesday, Oct. 4, 1933, at 9:40 a. m., by the president, Dr. Donald Guthrie, Sayre.

THE PRESIDENT: Members of the House of Delegates, before proceeding to business, if I hear no objection on the part of any one, I should like to postpone the order of business a little, and present to you a distinguished guest, and the guest speaker of the evening's meeting, a man whose influence through medical organization is unbounded, Morris Fishbein, of Chicago, Editor of the *Journal of the American Medical Association*.

MORRIS FISHBEIN: Mr. President, members of the House of Delegates, ladies and gentlemen: It is a pleasure to be here. I wish to make just a few remarks on problems relating to medical economics. As you know, it is not very difficult to gather together a large number of physicians to discuss medical economics, for that subject was never so close to the heart of the phy-

sician as today. The most recent important publication is Bulletin No. 7, having to do with State and Federal relief funds assigned to payment of the medical profession for relieving the indigent. I think the most important part of this is that the government recognizes for the first time the right of the patient to choose his own physician. The right to choose his own physician is the most important problem for which we must contest in every problem of medical legislation that comes to us in the future. We anticipate that there will be a great deal of interference, or regulation, of medical affairs by the government in future years.

I think the next most important recent event is the address of President Roosevelt before the Legion. He confirms the need of Federal care for disabled veterans and for indigent veterans, but not until after the county and state have exhausted their means. In other words, President Roosevelt endorsed the plan of the American Medical Association for the care of veterans. You may know that Bulletin No. 7 was issued after considerable consultation with the Bureau of the A. M. A. In other words, the Bulletin as issued is just as it was prepared by our own organization. The government has endorsed our plan. If you will read that Bulletin you will see that it endorsed organized medicine. These things represent great advances for organized medicine; they show the influence of the work you are trying to do here today, and particularly show the value of the work you have built up here in Pennsylvania, which functions at least 150 per cent—50 per cent better than any other state society. You have a splendid medical journal and an excellent working organization. As a member of the American Medical Association staff it is a great pleasure to be here and to extend to you these compliments on your work.

THE PRESIDENT: I now declare the meeting of the House of Delegates open, and as we are going into executive session I will ask all those present who are not members of The Medical Society of the State of Pennsylvania to retire. I will appoint Dr. Hunsberger and Dr. Gagon as sergeants-at-arms to see that this order is carried out. While the House is being cleared we will hear the reading of the minutes of the meeting of the House on Monday.

FREDERICK M. JACOB, Pittsburgh, moved that the reading of the minutes be dispensed with.

The motion was seconded and unanimously carried.

THE PRESIDENT: The next order of business is the election of officers, and I will appoint as tellers Charles H. Henninger, Pittsburgh; Frederick S. Baldi, Philadelphia; and Charles L. Shafer, Kingston. The Chair will now entertain nominations for president-elect.

J. NORMAN HENRY, Philadelphia, nominated Moses Behrend, Philadelphia.

The nomination of Dr. Behrend was seconded by John M. Fisher, Philadelphia; Frederick M. Jacob, Pittsburgh; Walter S. Cornell, Philadelphia; and J. Newton Hunsberger, Norristown.

DONALD C. RICHARDS, Easton, nominated Paul R. Correll, Easton.

The nomination of Dr. Correll was seconded by Harry J. Bell, Dawson, and Mark K. Gass, Sunbury.

CURTIS C. MECHLING, Pittsburgh, moved that the nominations for president-elect be closed.

The motion was seconded by several and unanimously carried.

THE PRESIDENT: Before proceeding to the balloting I will ask the Secretary to call the roll. This has been

intentionally postponed because members have been coming in all the time.

The Secretary then called the roll and announced 126 delegates present.

THE PRESIDENT: As this constitutes a quorum we will now proceed with the balloting for president-elect.

After the ballots were counted Dr. Henninger announced that 121 votes had been cast, Dr. Behrend receiving 80 and Dr. Correll 41.

THE PRESIDENT declared Dr. Behrend duly elected and appointed J. Norman Henry and John M. Fisher to find Dr. Behrend and escort him to the platform.

T. LAMAR WILLIAMS, Mt. Carmel, moved that the election of Dr. Behrend be made unanimous.

The motion was seconded by several and carried.

THE PRESIDENT: The next order of business is the nomination of four vice presidents.

JOHN J. BRENNAN, Scranton, nominated George C. Yeager, Philadelphia, for first vice president.

LEWIS H. FACKLER, York, nominated C. W. Eisenhower, York, for second vice president.

GEORGE L. DESCHWEINITZ, Bethlehem, nominated William G. Tillman, Easton, for third vice president.

JAMES H. CORWIN, Washington, nominated George B. Woods, Washington, for fourth vice president.

CURTIS C. MECHLING, Pittsburgh, moved that the nominations be closed and that the Secretary cast a unanimous ballot for these nominees.

SECRETARY DONALDSON reported the ballot cast for the four respective candidates and President Guthrie declared these gentlemen duly elected.

The President-elect was now escorted to the Chair and welcomed by President Guthrie.

MOSES BEHREND: Mr. President, Mr. Past President, members of the House of Delegates, ladies and gentlemen: I am sure this is the most trying ordeal I have gone through. I wish to thank you, ladies and gentlemen, for the very great honor you have conferred on me this morning. I hope I enter the office with a full appreciation of all the responsibilities I know one must shoulder. I enter the office with great humility, trepidation, and fear. I will not make a long speech, but would be remiss if I did not acknowledge with gratitude your confidence and friendship. I hope I can fulfill all your expectations, and assure you I will do my best.

THE PRESIDENT: The next item of business is the election of a secretary.

CLOY G. BRUMBAUGH, Huntingdon, nominated Walter F. Donaldson, Pittsburgh, to succeed himself.

J. NORMAN HENRY, Philadelphia, moved that the nominations be closed and that the President cast a unanimous ballot for Dr. Donaldson.

The motion was seconded and unanimously carried.

THE PRESIDENT: Your President duly casts the unanimous ballot for Dr. Donaldson and declares him duly elected. I assure you it is with much pleasure and anticipation that I take up my duties in coöperation with him.

The next item is the nomination of an assistant secretary.

GEORGE C. YEAGER, Philadelphia, nominated Henry G. Munson, Philadelphia, and moved that the President cast a unanimous ballot for Dr. Munson to succeed himself as Assistant Secretary.

President Guthrie reported the ballot cast and declared Dr. Munson duly elected as Assistant Secretary.

THE PRESIDENT: The next item is the nomination and election of a treasurer.

HAROLD M. GRIFFITH, Johnstown, nominated John B. Lowman, Johnstown, to succeed himself as treasurer, and moved that the secretary cast a unanimous ballot.

The motion was seconded and unanimously carried.

Secretary Donaldson reported the ballot cast and the President declared Dr. Lowman duly elected to succeed himself as Treasurer.

THE PRESIDENT: I will now request the Secretary to read the Call to the 1933 Session of the Society, on page 104 of the Handbook.

SECRETARY DONALDSON read that portion of the Call relating to the election of trustees and councilors, and the following were nominated:

E. Roger Samuel, Mt. Carmel, as Trustee and Councilor for the fourth district, for a full term of five years; and Clarence R. Phillips, Harrisburg, as Trustee and Councilor for the fifth district.

The tellers having spread, collected, and counted the ballots, Drs. Samuel and Phillips were declared by appropriate motions subsequently adopted to be unanimously elected.

THE PRESIDENT: The next order of business is the election of delegates, alternates-designate, and alternates-at-large to the American Medical Association.

J. NORMAN HENRY, Philadelphia, Chairman of the Committee on Society Comity and Policy, presented for renomination the entire list of delegates, with the exception of Harry W. Mitchell, Warren, deceased, and in his place nominated Charles G. Strickland, Erie. He also presented for renomination the entire list of alternates-designate and alternates-at-large.

GEORGE C. YEAGER, Philadelphia, moved that the report of the Committee on Society Comity and Policy be accepted and that the Secretary cast a unanimous ballot for the following nominees:

Delegates: J. Newton Hunsberger, Norristown; William H. Mayer, Pittsburgh; Frank P. Lytle, Birdsboro; Howard C. Frontz, Huntingdon; Charles G. Strickland, Erie; J. Allen Jackson, Danville; Walter F. Donaldson, Pittsburgh; J. Norman Henry, Philadelphia; Samuel P. Mengel, Wilkes-Barre; Arthur C. Morgan, Philadelphia.

Alternates-Designate: Samuel J. Waterworth, Clearfield; J. Treichler Butz, Allentown; C. A. E. Codman, Philadelphia; John F. Culp, Harrisburg; Curtis C. Mechling, Pittsburgh; Jonathan M. Wainwright, Scranton; William B. Odenatt, Philadelphia; Herbert B. Gibby, Wilkes-Barre; Cloy G. Brumbaugh, Huntingdon.

Alternates-at-large: Ward O. Wilson, Clearfield; Theodore P. Simpson, Beaver Falls; James H. Corwin, Washington; Peter H. Dale, State College; Frank G. Hartman, Lancaster; William C. Troxwell, Allentown; John D. McLean, Philadelphia; Joseph J. Meyer, Johnstown; Robert L. Schaeffer, Allentown; Joseph D. Findley, Altoona.

The motion was regularly seconded and carried, the Secretary reported the ballot cast, and the President declared these gentlemen duly elected.

THE PRESIDENT: The next thing before us is the election of affiliate members.

SECRETARY DONALDSON: The secretary has received a long list of candidates for affiliate membership, and in each instance the candidate has been approved by the local society. The list is as follows:

Allegheny County: George W. Beane, McKees Rocks; James M. McNall, Aspinwall; Joseph R.

Newell, Hays, P. T. Barnum Shaffer, Elizabeth; Charles J. Steim, Oxford; William W. Sturgis, Glen-shaw; Samuel A. Sturm, Pittsburgh; Frank F. Sum-ney, Dravosburg; Frank L. Todd, Myrtle Beach, S. Carolina.

Bedford County: William P. S. Henry, Everett.

Berks County: John L. Bower, R. F. D. 1, Birds-boro; Nathaniel Z. Dunkelberger, Kutztown; Alli-son A. Stamm, Mohnton; Frank Womer, Reading.

Chester County: William R. Perdue, R. D. 5, West Chester; David P. Rettew, Coatesville; John G. Thomas, Broomall.

Clearfield County: James A. Miller, Grampian.

Erie County: Henry H. Foringer, Owen M. Shreve, Arthur C. Wheeler, Erie.

Lackawanna County: Daniel A. Capwell, William K. Dolan, Lowell M. Gates, Robert B. McKeage, Scranton.

Lehigh County: Martin J. Backenstoe, Pasadena, California; Eugene H. Dickenshied, S. Charles B. Fogel, Allentown; John Lear, Trexlertown.

Luzerne County: George A. Clark, Wilkes-Barre; David H. Lake, Cleveland, Ohio; Ashton H. Morgan, Wilkes-Barre.

Lycoming County: Joseph W. Albright, Muncy; Thomas W. Raper, Williamsport.

Northampton County: Jacob D. Updegrove, R. D. 2, Philipsburg, N. J.

Philadelphia County: Samuel Ashton Bonnaffon, Wilmington, Delaware; Seneca Egbert, Wayne; Ed-ward B. Finck, Samuel J. Ottinger, Irving R. Schoon-maker, Philadelphia.

Warren County: William M. Robertson, Warren.

Westmoreland County: William H. Taylor, Irwin.

JOHN A. FARRELL, West Chester, moved that these candidates be elected to affiliate membership.

The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

The Secretary reported the ballot cast and the Presi-dent declared these candidates duly elected to Affiliate Membership.

THE PRESIDENT: The next order of business is elec-tion of District Censors as nominated by the component societies.

SECRETARY DONALDSON: Each of the county societies is represented on this list of nominees.

CHARLES H. HENNINGER, Pittsburgh, moved that the Secretary cast a unanimous ballot for the nominees for District Censors.

The motion was seconded and unanimously carried, the Secretary reported the ballot cast, and the President declared the following duly elected.

DISTRICT CENSORS

FIRST COUNCILOR DISTRICT—Philadelphia County, W. Wayne Babcock, Philadelphia.

SECONO COUNCILOR DISTRICT—Berks County, Irvin H. Hart-man, Reading; Bucks County, William G. Moyer, Quakertown; Chester County, U. Grant Gifford, Kennett Square; Delaware County, J. Clinton Sta-buck, Media; Montgomery County, John T. MacDonald, Norristown; Schuylkill County, James A. Lessig, Schuylkill Haven.

THIRO COUNCILOR DISTRICT—Carbon County, Wilson P. Long, Weatherly; Lackawanna County, Charles B. Noecker, Scranton; Lehigh County, George F. Seiberling, Allentown; Luzerne County, Hebert B. Gibby, Wilkes-Barre; Monroe County, J. Anson Singer, E. Stroudsburg; Northampton County, W. Gilbert Tillman, Easton; Wayne-Pike County, Arno C. Voigt, Hawley.

FOURTH COUNCILOR DISTRICT—Bradford County, John M. Higgins, Sayre; Columbia County, J. Elmer Shuman, Blooms-burg; Montour County, Horace V. Pike, Danville; Northumberland County, Charles M. Thomas, Sunbury; Susque-hanna County, Franklin A. Stiles, Great Bend; Wyoming County, William W. Lazarus, Tunkhannock.

FIFTH COUNCILOR DISTRICT—Adams County, Edgar A. Miller, Gettysburg; Cumberland County, Edward R. Plank, Carlisle; Dauphin County, David S. Funk, Harrisburg; Frank-lin County, Ambrose W. Thrush, Chambersburg; Lancaster County, Walter J. Leaman, Leaman Place; Lebanon County,

William M. Guilford, Lebanon; York County, Louis S. Weaver, York.

SIXTH COUNCILOR DISTRICT—Blair County, W. Albert Nason, Roa ing Springs; Center County, James L. Seibert, Bellefont; Clearfield County, George B. Kirk, Kylertown; Huntingdon County, Howard C. Frontz, Huntingdon; Juniata County, Isaac G. Headings, McAlisterville; Mifflin County, Frederick A. Rupp, Lewistown; Perry County, Lerus A. Carl, Newport.

SEVENTH COUNCILOR DISTRICT—Clinton County, Saylor J. McGhee, Lock Haven; Elk County, John C. McAllister, Ridg-way; Lyeoming County, Wesley F. Kunkle, Williamsport; Potter County, Elwin H. Ashcraft, Coudersport; Tioga County, John H. Doane, Mansfield.

EIGHTH COUNCILOR DISTRICT—Crawford County, Clyde E. Williams, Linesville; Erie County, Orel N. Chaffee, Erie; McKean County, Homer A. Wilson, Bradford; Mercer County, August M. O'Brien, Sharon; Warren County, Otis S. Brown, Warren.

NINTH COUNCILOR DISTRICT—Armstrong County, Thomas N. McKee, Kittanning; Butler County, Ralph W. Walker, Butler; Clarion County, Byron P. Walker, West Monterey; Indiana County, Ira C. Miller, Rossiter; Jefferson County, Spencer M. Free, Dubois; Venango County, Jacob P. Strayer, Oil City.

TENTH COUNCILOR DISTRICT—Allegheny County, David P. McCune, McKeesport; Beaver County, Milton L. McCandless, Rochester; Lawrence County, C. Fenwick McDowell, New Castle; Westmo:eland County, Thomas St. Clair, Latrobe.

ELEVENTH COUNCILOR DISTRICT—Bedford County, William P. S. Henry, Everett; Cambria County, John W. Barr, Johns-town; Fayette County, Charles H. Smith, Uriontown; Greene County, Thomas N. Millikin, Waynesburg; Somerset County, Charles J. Hemminger, Somerset; Washington County, James H. Corwin, Washington.

THE PRESIDENT: The next order of business is the report of the Committee on next place of meeting. I will ask Dr. deSchweinitz, Chairman of that Committee, to report.

GEORGE L. DESCHWEINITZ, Bethlehem: We have re-ceived an invitation from the Luzerne County Medical Society. Your Committee recommends that this invita-tion be accepted.

LEONARD G. REDDING, Scranton, moved that the re-port of the committee be accepted and that the next annual meeting be held in Wilkes-Barre.

The motion was seconded by several and unanimously carried.

THE PRESIDENT: Before calling for the reports of the Reference Committees I will ask if there are any further resolutions to come before the House for con-sideration.

FREDERICK M. JACOB, Pittsburgh, presented the fol-lowing resolution:

RESOLUTION

WHEREAS, The medical profession has been thoroughly in ac-cord with the policy of governmental care of veterans with service connected disabilities, and

WHEREAS, There has been an active propaganda to extend this service to all veterans and their families regardless of the origin of disability, be it

Resolved, That The Medical Society of the State of Pennsylv-ania, consisting of 8000 practicing physicians, a great percent-age of whom are veterans, expresses its complete satisfaction with the patriotic position taken by the President of the United States and again heartily endorses the recognition of the Gov-ernment's responsibility only in the cases of disabilities of serv-ice origin.

THE PRESIDENT: I will refer this resolution to the Reference Committee on New Business. Are there any further resolutions?

FRANCIS F. BORZELL, Philadelphia, presented the fol-lowing resolution:

RESOLUTION

WHEREAS, Physicians have always placed the welfare of the public before their own interests, it is important that during these disturbed times their waterfulness of the public welfare be not relaxed. The past bears witness to what has been done by physicians to guard the interests of the public in matters of health. Higher requirements of preliminary education are now demanded for those beginning the study of medicine, standards have been raised for those who wish to practice medicine, public health practice has advanced and hospital service has been improved. All these advances have been initiated, fostered, and brought to fruition by physicians and organized medical groups.

To safeguard the public and the patient and to improve hospital standards, the American Medical Association established its Council on Medical Education and Hospitals. That great good has come from the Council's activities is universally recognized; but if it is not to come to the public the Council's vigilance must be maintained. The Council on Medical Education and Hospitals of the American Medical Association is in a position to set up standards for hospitals so far as physical equipment of the hospitals and the adequacy of their personnel is concerned; but the Council has no way of knowing whether the policies of hospitals are so directed that the best interests of the patient, the public, and the physician are preserved. The component county medical societies of the Association are the only competent judges of the policies of the institutions in their respective counties, and their facilities should be employed by the Association and its Councils. Therefore, be it

Resolved, That the delegates of The Medical Society of the State of Pennsylvania to the next annual meeting of the American Medical Association be instructed to introduce the following resolution and motion:

Resolved, That the best interests of the patient and the public demand that the suitability of hospitals for admission to the list of hospitals approved by the Council on Medical Education and Hospitals as suitable for intern and special training of the Council on Medical Education and Hospitals, be investigated and passed upon by the medical society of the state in which the hospital is located. With this end in view it is therefore moved that Chapter IX, Section 2, of the By-Laws of the American Medical Association be amended to read:

SEC. 2. COUNCIL ON MEDICAL EDUCATION AND HOSPITALS.—The functions of the Council on Medical Education and Hospitals shall be: (1) To investigate conditions of medical education, hospitals and associated subjects and to suggest means and methods by which the same may be improved. (2) To endeavor to further the realization of such suggestions as may be approved by the House of Delegates. (3) No hospital shall be admitted to the lists of recognized hospitals, and hospitals approved for intern and special training, unless, in addition to meeting the criteria formulated from time to time by the Council it shall also receive annually, the approval of the state medical society of the state in which the hospital is located. Be it further

Resolved, That copies of this resolution in its entirety be sent by The Medical Society of the State of Pennsylvania to all state medical societies immediately, with the request that they study it and instruct their delegates to support it when introduced by the delegates of The Medical Society of the State of Pennsylvania at the next annual meeting of the American Medical Association. Be it further

Resolved, That copies of this resolution be sent to each of the component county medical societies of The Medical Society of the State of Pennsylvania.

(Signed) SETH A. BRUMM,
MOSES BEHREND,
FRANCIS F. BORZELL,
HENRY G. MUNSON,
CHARLES F. NASSAU,
THEODORE MELNICK,
P. F. LUCCHESI,
JOHN FARRELL, JR.,
HAROLD F. ROBERTSON,
GORDON J. SAXON,
C. A. EDEIKEN,
GEORGE C. YEAGER,
RICHARD W. LARER,
L. W. ALBERT EICHLER,
D. MACFARLAN,
I. E. MARTER,
S. H. BROWN,
FRANCIS A. FAUGHT.

THE PRESIDENT: I will refer this resolution to the Reference Committee on New Business. Are there any further resolutions?

SETH A. BRUMM, Philadelphia, presented the following proposed amendment to Section 1, Chapter VI, of the By-Laws:

That Section I, Chapter VI, of the Constitution and By-Laws be changed to read: "The Standing Committees of this society shall be as follows: The appointments when not otherwise provided to be made annually by the president." It shall be the privilege of the House of Delegates to constitute and finance such other committees as their wisdom may demand. These committees to be appointed annually by the president.

(Signed) FRANCIS ASHLEY FAUGHT,
SETH A. BRUMM.

THE PRESIDENT: This will be referred for consideration of the 1934 House of Delegates.

HUNTER H. TURNER, Pittsburgh, presented the following resolutions:

RESOLUTION

WHEREAS, In Philadelphia, the First School District of Pennsylvania and the best organized as regards the physical examination of children, the records show that between 13,000 and 14,000 of the children examined each year have defective vision and do not obtain corrective treatment, in spite of the great number of ophthalmologists practicing in this district, and

WHEREAS, In Pittsburgh, the other great city of Pennsylvania, a similar situation exists, and

WHEREAS, There is a large school population scattered throughout the State of Pennsylvania, especially in the lower grades, where not only is the system of physical examination open to improvement, but also where the treatment of remedial defects is woefully inefficient, and

WHEREAS, The attempts of the State Council for the Blind to isolate and guide the treatment of such children by the inauguration of Sight Saving Classes and other instruction especially designed for the visually handicapped, has met with indifference on the part of many physicians and has lacked the united support of the profession, therefore, be it

Resolved, That the Committee on Conservation of Vision, once before constituted by the State Society, shall be revived; that its personnel shall include the present medical member of the State Council for the blind and ophthalmologists from representative districts of the State of Pennsylvania, and that the committee shall be granted a sufficient appropriation to efficiently carry on the important work for which it is constituted.

THE PRESIDENT: This resolution will be referred to the Reference Committee on Scientific Business.

JOHN A. FARRELL, West Chester: I told you I would request an explanation of just what is meant by contract practice. I therefore present the following resolution:

WHEREAS, There has been and is now great and continued confusion and misunderstanding over the matter of contract practice which is causing needless discussion and dissension, which discussion will eventually disrupt the amity and good feeling of our society, if it is not soon discontinued, therefore, be it

Resolved, That we request from the national officers and Board of Trustees of the American Medical Association a definite and concrete decision as to what represents contract practice within the meaning of reasonable competition.

THE PRESIDENT: This resolution will be referred to the Committee on New Business.

JOHN A. FARRELL, West Chester: I wish also to bring to your attention the following:

WHEREAS, There now exists a form of liability insurance which provides for the insured, in case of illness or accident, funds which it is presumed the policyholder will apply toward payment to his attending physician and the hospital, but which in actual practice in very many instances are not thus applied, therefore, be it

Resolved, That the Committee on Public Health Legislation be instructed to, if possible, have laws enacted, or existing laws amended, to make it a misdemeanor to thus misappropriate funds in these cases.

THE PRESIDENT: I will refer this also to the Committee on New Business.

We will now hear the reports of the Reference Committees. The first will be the report of the Reference Committee on Reports of Officers and Standing Committees, Dr. Gross, Chairman.

REPORT OF REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND STANDING COMMITTEES

PRESIDENT'S ADDRESS

Your Committee heartily endorses the President's suggestion that physicians be reimbursed from Public Funds for the care of the temporarily indigent, and that a plan or a modification thereof, as advised by our Board of Trustees as it appears in the first paragraph, Page 126 of the Handbook, be adopted.

The Committee approves the President's statement that it will be one of his major efforts during the coming year to create wide-spread interest in post-graduate work among the physicians in this State.

We highly commend the President on his attitude toward maintenance of our traditional standards of professional ethics.

FREE CHOICE OF PHYSICIAN

Your Committee is highly in favor of the action taken by the Board of Trustees at their meeting on July 27, in which they unanimously decided that under Pennsylvania's Workmen's Compensation Act, the free choice of physician by the injured employee should be the guiding principle of The Medical Society of the State of Pennsylvania.

The Committee endorses the Resolutions A, B, C, and D, Page 126 of the Handbook, in reference to the administration of Public (State or Federal) Funds in payment for authorized medical services to those on emergency relief.

These have been referred to in part by our incoming President in his address.

The work of the Committee on Medical Economics in the First Councilor District is noteworthy.

Your Reference Committee would encourage the continued work of the various committees throughout the various councilor districts in their endeavors in Emergency Child Health Work.

We congratulate the Berks County Medical Society and its Woman's Auxiliary on their evident outstanding educational work along health lines, and recommend that other societies which have not already done so follow the example of this Society.

HEALTH NEWS RELEASES

From an examination of the map of Pennsylvania charted and displayed in booth No. 5 in the Scientific Exhibit, it has been discovered that there are 16 counties that have not had published the State Society health columns in their daily or weekly local newspapers. We suggest that this neglect be called to the attention of the district councilors concerned.

PUBLIC HEALTH LEGISLATION

We commend the Committee on Public Health Legislation for its valuable work during the last session of the Legislature, and we congratulate its members on their purely defensive tactics employed during the session.

PUBLIC RELATIONS

The report of the Committee on Public Relations shows truly constructive, intelligent, and untiring endeavor, and we bespeak continuity in its effort and leadership.

The report of Trustee and Councilor Robert L. Anderson of the Tenth District on the proposed closer relations between District Censors and Councilors of the Districts is worthy of acceptance by all District Censors and District Councilors.

NECROLOGY

This Committee reports with regret that certain secretaries of our county societies are grossly negligent in reporting the deaths of members to the Secretary of the State Society. This paragraph is inserted in your reference committee's report in the hope that this serious neglect will receive the attention it deserves.

(Signed) ARTHUR H. GROSS, *Chairman*,
R. L. HILL,
JOHN A. FARRELL.

Dr. Gross moved the adoption of this report as a whole.

The motion was seconded by George C. Yeager, Philadelphia.

JOHN D. McLEAN, Philadelphia: This House of Delegates voted on Monday fixing the assessment at \$7.50 for the year. I hope the State Society will increase its activities. I think it would be for the benefit of each county medical society if the State Society would increase its activities in the direction of a better economic condition for each one of us.

JOHN C. McALLISTER, Ridgway: I have been impressed by our putting aside a fund for the future so that the men of the future may not have to bear that burden. I believe the organization should budget and levy an assessment each year sufficient only to cover the benevolences and other expenses.

FREDERICK M. JACOB, Pittsburgh: It has been the practice of the human race to saddle future generations with present-day expenditures by means of bond issues, mortgages, etc. I think an admirable spirit of altruism

is being shown by this society in accumulating funds that will benefit those who will follow us. I call for the question.

The motion that the report be adopted was put to a vote and carried.

THE PRESIDENT: We will next hear the report of the Committee on Scientific Business, Charles F. Nassau, Chairman.

CHARLES F. NASSAU, Philadelphia, presented the following report:

REPORT OF THE REFERENCE COMMITTEE ON SCIENTIFIC BUSINESS

A meeting of the Reference Committee on Scientific Business was held Oct. 2, two of the members being present.

The report of the Committee on Mental Hygiene was carefully considered and your Reference Committee concurs in the recommendations made.

The very important report of the Commission on Cancer deserves the highest commendation, and it is the opinion of your Reference Committee that the recommendation of the Commission on Cancer should be adopted, and that the usual appropriation of \$1250 or as much of this sum as is needed, be made.

A communication introduced by George C. Yeager and referred to the Committee on Scientific Business is as follows:

Be It Resolved, That a campaign against the increasing high mortality of acute appendicitis be inaugurated in this State by The Medical Society of the State of Pennsylvania for the following reasons:

1. The mortality is exceedingly high in the majority of the larger cities of Pennsylvania.
2. The mortality is controllable; the greater part is due to delay in hospitalization and the giving of laxatives.
3. The mortality can be reduced by legitimate publicity as shown by the results obtained in Philadelphia during the past three years.

Your committee considers this an extremely important item and recommends that action be taken to further any campaign which will result in a diminution of the death rate in appendicitis.

Your committee has considered and approves the resolution presented by Hunter H. Turner regarding a Committee on Conservation of Vision.

(Signed) CHARLES F. NASSAU, *Chairman*,
JOHN F. CULP,
JAMES D. STARK.

SETH A. BRUMM, Philadelphia, moved the adoption of this report.

The motion was seconded and unanimously carried.

THE PRESIDENT: The next order of business is the report of the Reference Committee on New Business but they are not quite ready to report. Is there anything to come before the House at this time?

WALTER S. CORNELL, Philadelphia, requested the privilege of the floor and called attention to an article in a Philadelphia newspaper, Oct. 3, stating that there were several misstatements in the article referring to medical activities.

SETH A. BRUMM, Philadelphia, stated that the same paper has on many occasions misrepresented statements made by members of the profession.

CLOY G. BRUMBAUGH, Huntingdon, moved a vote of thanks from the House of Delegates to the Philadelphia County Medical Society and the Philadelphia Medical Club for their generous hospitality and splendid entertainment during the annual session.

The motion was seconded by several and unanimously carried.

THE PRESIDENT: We will now listen to the report of the Reference Committee on New Business, Dr. Pontius, chairman.

PAUL J. PONTIUS, Philadelphia, presented the following report:

REPORT OF THE REFERENCE COMMITTEE ON
NEW BUSINESS*To the President and House of Delegates:*

I. The Reference Committee on New Business, to whom has been referred the advisability of the creation of a separate scientific section to be known as the Section of School Physicians, recommend that the recommendation of the Board of Trustees adopted at its February meeting be sustained and in addition thereto, that the Pediatric Section be requested to assign a place in their program for presenting subjects of interest to the school physician.

Dr. Pontius moved the adoption of this section of his report. The motion was seconded by Curtis C. Mechling, Pittsburgh, and unanimously carried.

II. We heartily recommend the resolution of Dr. Jacob and suggest that the Secretary communicate same to President Franklin D. Roosevelt.

Dr. Pontius moved the adoption of this section of his report. The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

III. Referring to the resolution presented by Dr. Farrell, your committee finds that the House of Delegates of the American Medical Association at its session of 1933 defined the term, "Contract Practice," and that the same was published in the *Journal* and *The Bulletin of the American Medical Association*; therefore, we commend their findings and see no reason for further declaration of policy.

Dr. Pontius moved the adoption of this section of his report. The motion was seconded by J. Newton Hunsberger, Norristown.

JOHN A. FARRELL, West Chester: Before the adoption of this section I wish to say a word. Here we are with the most important part of the business of the organization to be done right now. We have at this time out of possibly 120 delegates only about 40 present. It reaches into every corner of Pennsylvania and it is too bad not more are present. A very perfunctory notice from the American Medical Association with nothing definite about the law in Pennsylvania placing physicians in our schools, nothing about companies who put up notices stating that injured employees must go to a certain doctor to be treated. This thing multiplies thousands upon thousands of times in the State of Pennsylvania. There is only one thing to do in the matter of contract practice. Do not let such practitioners belong to our organization, or alter our ethics.

SETH A. BRUMM, Philadelphia: I am very happy to listen to the wisdom of Dr. Farrell. I think there is no answer to it, we can not run both hot and cold. I speak very feelingly on this subject, and I agree with Dr. Farrell that we should have a very definite concrete definition of what constitutes contract work from the American Medical Association. I hope Dr. Farrell will get cooperation.

THE PRESIDENT: Are there any further remarks?

The motion to adopt this section of the report was put to a vote and lost.

Dr. Pontius then read the next section of his report.

The Committee moves that the Resolution regarding misapplication of liability insurance cash benefits, especially when related to traffic accidents and injuries treated by physicians and in hospitals, be referred to our Committee on Public Health Legislation.

The motion was seconded and adopted.

Dr. Pontius then read the next section of his report:

IV. Referring to the resolution presented by Dr. Borzell, the practical consideration in other states renders the broad policy outlined in this resolution inexpedient under present conditions. The committee again subscribing to county society leadership advises this House of Delegates to refrain from the proposed expression of hospital policy for the present at least.

Dr. Pontius moved the adoption of this section of his report. The motion was seconded by several.

The President granted John T. Farrell, Philadelphia, the privilege of the floor.

JOHN T. FARRELL, Philadelphia: As has been said, when attempting to get an opinion from the American Medical Association, it is stated that they cannot legislate for the whole country because of different conditions prevailing. The thought in this resolution was to advance all hospitals. The A. M. A., on the other hand, has no way of determining whether a hospital in any one place is properly functioning in many ways. The purpose of the resolution, in my opinion, is to allow the local practitioner to advance his own interest according to his own rights, and according to the conditions in his particular locality.

WILLIAM H. MAYER, Pittsburgh: From my experience in the A. M. A. House of Delegates, I am of the opinion that the American Medical Association is naturally unwilling to make definite statements in the form of blanket rules. I feel that if we present this resolution to the House of Delegates of the A. M. A., it would again meet with defeat. I would suggest that the resolution be taken up for one year with the Judicial Council of the A. M. A., which is not too long or too short a time for consideration.

FRANCIS F. BORZELL, Philadelphia: May I repeat my belief that the defeat of this resolution in the last A. M. A. meeting was because it was brought up by a county society, rather than a state society. The main reason for presenting the resolution now is to put it through proper channels.

J. NEWTON HUNSBERGER, Norristown: Some years ago at a meeting of the A. M. A. the House spent one entire afternoon discussing contract practice. There were nation-wide differences in viewpoints and it is therefore very difficult to unify opinion in defining contract practice, which some previous speakers today seem to think so easy.

FRANCIS F. BORZELL, Philadelphia: I would ask that you consider a substitute motion, namely, that the matter be referred to our Board of Trustees for consideration.

The motion was seconded and carried.

THE PRESIDENT: We are now ready to take up new business.

CLOY G. BRUMBAUGH, Huntingdon: May I ask for a definite opinion as to whether Dr. Farrell's resolution was adopted?

JOHN A. FARRELL, West Chester: To clarify the situation completely, I move that the negative action of this House on the recommendation of the Reference Committee on the resolution introduced by me regarding contract practice be interpreted as adoption of my resolution.

The motion was seconded by Paul J. Pontius, Philadelphia, and carried.

THE PRESIDENT: Is there any further new business?

EDGAR S. BUYERS, Norristown: Representing the Board of Trustees, I wish to speak for just a moment regarding medical service and State Emergency Relief. As to requests for payment for physicians from Federal Relief Funds, I will say that it has been requested since July 27. On page 125 of the Handbook you will find definite suggestions for the county societies. This has been presented to the State Emergency Relief Board at other times by your representatives. I wish to say very briefly that we believe payment for authorized medical services will soon be forthcoming. It will be from Federal funds entirely. There is at present apparently no way in which State money can be turned over for this form of relief service, and until some change is made in the Pennsylvania Act, the available money will be entirely Federal. I would be pleased to have a motion asking that a committee be appointed from The Medical Society of the State of Pennsylvania to confer with the State Emergency Relief Board con-

cerning definite plans for the development of this service involving sharing by the public of this burden, which for years has fallen on physicians alone.

GEORGE C. YEAGER, Philadelphia: I move that this House of Delegates, in expressing confidence in the Board of Trustees for their handling to date of the problem of paying Pennsylvania physicians for authorized services to the indigent, authorize the President of this society to appoint a committee of five to further advance plans for such payment through Federal funds, in harmony with plans promulgated by Director Harry L. Hopkins, in Federal Emergency Relief Administration Rules No. 7, issued the second week in September.

The motion was seconded by J. Newton Hunsberger, Norristown, and unanimously carried.

THE PRESIDENT: Is there any further business? If not, I will declare the House of Delegates adjourned, *sine die*.

The House of Delegates adjourned at 12:40 p.m.

DONALD GUTHRIE, *President*,
WALTER F. DONALDSON, *Secretary*,
HENRY G. MUNSON, *Assistant Secretary*.

MINUTES OF THE GENERAL MEETINGS

Tuesday, Oct. 3, 1933

The first General Meeting convened at ten o'clock, Tuesday morning, Oct. 3, 1933, in the Ballroom, Bellevue-Stratford Hotel, Philadelphia, the President, Charles Falkowsky, Jr., Scranton, in the Chair.

THE PRESIDENT: I now declare the eighty-third annual session of The Medical Society of the State of Pennsylvania in order. I wish to make the request that after the invocation you please remain standing until the Report of the Necrology Committee is read. The invocation will be pronounced by Rev. Charles B. Dubell, Rector, St. Simeon's Episcopal Church, Philadelphia.

INVOCATION: Almighty God our heavenly Father, we lift our hearts in gratitude to Thee who hast set our feet in beautiful places, in green pastures and beside still waters. Give Thy grace, we beseech Thee to these Thy children, that we may always be mindful of Thy favor and ever follow with eager, burning, even passionate desire Thy holy will. Bless this our land with honorable industry, with sound learning, with pure desires. Fashion into one unit the people who have come from all parts of the earth. In days of prosperity fill their hearts with thanksgiving, and in hours of trial and testing and proving suffer not their trust in Thee to fail. We would ask a special benediction this day upon Thy servant the President of the United States, the Governor of this State, the Mayor of this city, the incoming and outgoing Presidents of this Medical Society, that they, knowing whose servants they are, may above all things seek Thy honor and glory. And now to this gathering here of Thy devoted sons and consecrated daughters, be especially near. Come, Thou Great Physician of the body and of the soul, and be our guest. Grant that in the midst of all our deliberations Thy spirit may govern, and can we conceive of any group that strives more to do Thy holy will than they who are wrapped up in the relief of suffering and the preservation of the days of the years of one's life? May God give to each and every one skill that they may know a greater field, a special opportunity to live a life of sacrifice and sympathy, for heavy is the weight of woe in every heart, and comforters are needed much with Christlike touch.

This we ask in the name of Jesus Christ our Lord. Amen.

REPORT OF COMMITTEE ON NECROLOGY

Your Committee on Necrology has the sad duty to report that the Society lost, through death, during the past year, 130 members, and the Commonwealth of Pennsylvania and the Society have suffered an irreparable loss in the passing of these practitioners of medicine.

The names of the deceased members are published annually in the *Roster* of the Society, as well as in THE PENNSYLVANIA MEDICAL JOURNAL from month to month, and will not be read at this time.

All members of this Society are on an equal standing, therefore your Committee does not deem it proper to single out any for special eulogy.

Respectfully submitted,

CHARLES C. ROSS, *Chairman*,
THOMAS R. CURRIE,
THEODORE P. SIMPSON,
MARCUS SPIRO,
WALTER F. DONALDSON.

(The audience remained standing in silence for one-half minute.)

THE PRESIDENT: I take particular pride in introducing the next speaker on this program, because 15 years ago at our annual meeting I had the pleasure of hearing his address of welcome to this Society as the then Mayor of this city. He proved to be so good a Mayor that after this long period of time he was again elected Mayor, and he is here to welcome The Medical Society of the State of Pennsylvania. I take great pleasure in introducing Hon. J. Hampton Moore, Mayor of the City of Philadelphia.

ADDRESS OF WELCOME

HON. J. HAMPTON MOORE, Mayor of the City of Philadelphia: President Falkowsky, my friends from all parts of Pennsylvania: When I delivered an address before this Society 15 years ago it was with the evident purpose of inducing you to come back, and I am mightily pleased that the speech had such a good effect that I am permitted again to speak to you. Any one but a man who is nearsighted might see that your coming to Philadelphia is a matter of no mean significance. You are welcome to the City of Philadelphia, come from where you may, because we are ever pleased to have you counsel with us here, and to have an opportunity to counsel with you. We are rather proud of our position in Philadelphia with respect to the medical and surgical sciences. We are mightily pleased that advancement has been made in each, and that we are so much improved over conditions that held in days gone by, back even to the beginning of those colleges for which Philadelphia is famous.

The Mayor has no set speech this morning because the difficulties of his position with respect to the budget have filled his mind with figures, and those things he would like to say on a special occasion like this perhaps will have to be said extemporaneously. However, I had the pleasure this morning of glancing at an address that is to be delivered by your incoming President, Dr. Guthrie, of Sayre, and glimpsing its pages I observed that it was a good speech and that there is much in store for you who expect soon to follow his leadership. There was just a suggestion on one page that attracted the Mayor's attention particularly, and that was, speaking *sub rosa* as it were, that the doctors should adhere to their medical traditions. That is a splendid thought for each of you to keep in mind. We are proud of the

traditions of the medical profession of Philadelphia, and we hope and pray that they may be maintained throughout this Commonwealth and throughout the United States.

The traditions of the medical profession! Are the doctors maintaining the fine old traditions, are they holding the position once held by medicine everywhere when we knew the family physician as such? Are not doctors drifting away from their moorings with respect to these traditions, and becoming so highly specialized and so highly socialized that no longer we may expect from them the thorough and complete service the family received in former days? Great problems, it seems to me, confront your profession, even as they do most other crafts, businesses and professions, in these very extraordinary and peculiar times. We are living in days that perhaps justify us sometimes in feeling that the care of our brother makes us a keeper, no matter what the expense, the pain and agony of keeping the brother means. Sometimes we may wonder whether we may go so far with this doctrine, which is handed down from Bible times, as completely to overlook the welfare of the living and the healthy in our interest in those who are sick, feeble, infirm, incapacitated; and yet the community has up to the present time found a way to care for those who are afflicted, those who are unable to care for themselves. The population is increasing, and along with it the responsibility of those who are well is also increasing. One has but to be the Mayor of a municipality once, to come to a rather complete and thorough understanding of this responsibility of the community to those who are infirm, those who are mentally afflicted, those who are unable to care for themselves. It is within the early recollection, I suspect, of most of you, when in some cases a poor, worn-out housewife has been obliged to care for an utterly incompetent child or relative, kept within her doors, an affliction not only to those of the family, but many times to those who assumed the care and responsibility perhaps for a lifetime of caring for one or two or more thrust upon them, as it were, without the assistance of the community, such burden being assumed with a pride too great to permit them to turn over the infirm and afflicted to a public institution such as the poorhouse. Today in the great municipalities we have to recognize the responsibility of the community to the afflicted. My recent and intimate studies of the problem as it relates to the expense of operation of public institutions has led me to believe that there is sometimes, somewhere, an imposition upon the taxpayer in this regard; that there are those who are not sufficiently devoted as housewives and mothers to care for their own afflicted, and that there are those amply able to pay who are no longer ashamed to send their afflicted ones to public institutions, and to impose on their fellow citizens the obligation and responsibility that perhaps should otherwise rest on the home. The family physician knew all about this—he must have known it; but today we have our systematized methods by which the afflicted shall reach our public institutions, for which a tax is imposed upon the community.

The newspapers of today are filled with the distress of the people, telling us how there are those unable to care for themselves, telling us in the same breath how many are unwilling to work, who strike against work, some of them ultimately to become public charges, imposing themselves upon those people who pay taxes. The papers are filled with all this, and it must come within the knowledge of the physician who deals with those who by reason of their own indifference to their own welfare, by reason of their own recklessness and

physical carelessness ultimately find their way to the family doctor or the institutional doctor. The medical profession must be aware of all this, and I sometimes think must assume a little bit of the responsibility for the burden laid upon the good citizen who continues to pay taxes, and upon whom the burden ultimately falls.

I would like to refer briefly, not only to our splendid historic institutions in Philadelphia that are part of our 66 counties outside of Philadelphia—I would like to draw your attention, of course, as most mayors of a great city like this would, to our shrines and institutions, because Philadelphia is, and should be, the first patriotic city of America, with the first real shrines preserved for all the people of the United States. It is simply in this presentation, which is no casual presentation, to this audience of thinking men and women, responsible men and women, who are looking after the health of the Commonwealth—to men and women of this type I should like to draw attention for a moment to some of the institutions of this the largest and first city of the State. Wonderful changes have taken place in this city during the past 25 years with respect to medicine and surgery. Great changes financially have taken place since this Mayor was Mayor formerly and addressed this convention. We have been charging things up to the public in a manner which sometimes makes the Mayor of this late day wonder whether the old-time traditions of the medical profession are being sustained, or whether there is a frantic rush toward the institutional which means ultimately that the private practitioner must either succumb to the institutional and leave the field of private practice, or find himself without that opportunity for service which was the duty and the privilege of the fine old family physician, respected in the neighborhood and a power in the community.

Do you know what it costs the City of Philadelphia to care for the unfortunate children in our midst, some of them apparently parentless, at least whose parents are not alert to protect and care for them—not all of course, but many of this type? It costs, or will cost in 1934, in round figures, to take care of the sick, the maimed, the mentally afflicted, those who are left on our doorstep, as it were, the children of the community that some one who should does not care for and for whom responsibility is denied—it will cost the City of Philadelphia, already sorely tried financially, about \$10,000,000. This cost for institutional care will absorb more than one-eighth of the entire resources of the city for 1934. Some persons have said, and the newspapers have intimated, that we do not care for the poor in Philadelphia as is done in other cities. I am not saying anything about other cities; I am simply defending Philadelphia, and saying that we have directly under our care now, actually about 33,000 persons, men, women and children, who are cared for at public expense. This very day we are considering whether in the next few days we shall not need about two and a half millions increased appropriation, which must also be provided by the taxpayers of the county, to care for this growing group next year.

I am wondering sometimes where the professional responsibility of the medical men of Pennsylvania comes in in all this program, whether they are institutionalized altogether, or whether they are back in their communities caring for those who need their help and assistance in the regular way, maintaining that fine private practice which the physician should have and which he rightfully deserves, considering what his education and training and attainments have been. We have nearly \$25,000,000 delinquent taxes in Philadelphia because the

taxpayers have been unable to pay to that extent. But here is a demand, along with all the other budget estimates, for \$6,000,000 for the City Commissioners, who are also our County Commissioners. The largest item in the estimate is for the care of children committed by the Juvenile Court, amounting to \$1,930,000, for the care of children assigned to our institutions by the Juvenile Court. It is interesting to note that 15 years ago, when I had the honor of addressing this convention, the total cost for the maintenance of children assigned by the Juvenile Court was approximately \$300,000; next year it will be approximately \$2,000,000, and the taxpayers must pay it. That is being your brother's helper and keeper, and the taxpayer is certainly the helper. We spread these children around the institutions, and care for them in private institutions, and the taxpayers pay. Where does the medical man come in? Has he simply referred the child to the community, or has he cared for him and taken his chances on compensation from those who are responsible for the charge? But at any rate it falls back upon the taxpayer to pay for the care of children who are sent to us from somewhere, from somebody who cares not but who leaves it to the community to pay. The total number of children that the taxpayers now support in the City of Philadelphia is 7000—seven thousand children, which is equal to the population of the majority of the smaller cities of the Commonwealth of Pennsylvania.

During recent years Philadelphia has spent great sums of money in the construction of splendid buildings of hotel proportions where we are caring for the indigent poor. Recently one has been built for the care of tuberculous patients. Every convenience known to medical and surgical science has been provided. Of course we have the best physicians, we have the finest nurses, and we have a great number of attendants, and all these must be provided for. I wonder sometimes just where the private practitioner who is maintaining the traditions of the profession comes in on this general proposition. The Philadelphia General Hospital today, this poorhouse of magnificent proportions, calls for buildings, must house those who serve the unfortunate, those who conduct the clinical work, and those who take care of the business of the institution. There are 1927 patients at present there, and approximately 1500 employees—physicians, nurses, attendants, because a 24-hour service is necessary, all sorts of cases being received. Up to a recent time it was necessary only to knock upon the door to be admitted. To it have come these who have to be provided for—the meals they eat and their maintenance. Private physician, family doctor, young or old though you may be, I would suggest that this matter be thought over, considered with respect to the home practice, with respect to the even distribution of service, with respect to the probable eventual socialization of medicine and surgery so that the private practitioner may no longer be heard of.

We have another very remarkable institution in Philadelphia which I wish you could all visit because it has been the subject of discussion throughout the State. The recent movement of the State Legislature to take it over under State auspices was not approved by the Mayor of Philadelphia, for many reasons which need not be mentioned now. It might have been a good thing to be rid of it, but there were other questions which caused us not to encourage the transfer at this time, and to be frank with you, so far as the Mayor is concerned, it seemed a gradual tendency towards the socialization of medicine—the care of everybody by socialized medicine as against the private practitioner and

the family doctor. How many persons do you think we care for at Byberry, an institution for the mentally afflicted? At present we have 5509 adults and 321 children—about 6000 persons to be cared for there. We have in attendance upon these 5800 patients, 652 persons, including physicians, nurses, *etc.* They do not need the same special treatment accorded to those who are tested at the County Hospital which sends them forward to Byberry; but there they are in that great institution today, and there we care for them. Sometimes as I wander through the institution I observe some very refined men and women there, and there are some who come from very excellent families. It may be our treatment is best, but query! To what extent shall we take over on the taxpayers' account the care of those who might and should be privately cared for?

Then comes the Hospital for Contagious Diseases. Of course we all recognize that it is highly important to be prepared for an emergency. Soldiers generally believe in preparedness; so does the Mayor of Philadelphia. We have in the Hospital for Contagious Diseases at the present time 78 patients—I believe most of them because of scarlet fever,—119 persons in all, medical men and nurses, in that institution whose care and attention may be needed; but they are maintained and their salaries paid by the taxpayer, and those patients are not being cared for privately. I suppose we deal with patients from almost every county in the State that has been good enough to send these unfortunates to us—patients who should have stayed at home and received treatment and care from competent private physicians and nurses. But we have received them and are taking care of them. We have recently begun a checking up, however, with a view of finding how many of these there are, and with a further view of asking those who are responsible to take them home and relieve the conditions in our institution.

I have not thrown into the picture those who are under our care in other ways, as in county prisons, epileptic patients, who are in State institutions and under State control, as in our eastern penitentiary. So many fine distinctions as between the City of Philadelphia and the Commonwealth occur that I shall not attempt to dwell upon them. It is very interesting from the financial as well as the municipal point of view, and I feel justified, coming as you do from all parts of the State, in bringing to your attention a few particulars with respect to what Philadelphia does, not only for its own, but for those who come from elsewhere, who are more or less thrust upon us, and whom we must in charity and humanity care for.

I do not wish to take more of your time, but I should like to call your attention to the fact that the \$10,000,000 we will need next year in conducting our various medical and welfare institutions in Philadelphia includes providing the overhead for the examination of school children, providing glasses if their eyes are defective, and examination of children in parochial schools, that is to say, taking over the work of those institutions, one of which, at least, the Board of Education of Philadelphia has some taxing power, but permits the City out of its scant resources to pay for the examination and care of the eyesight and for the dentistry essential for children of school age. I am bringing this to your attention because gradually the public is taking over, through the medium of the taxpayers' resources, the care of eye cases—we now have ophthalmologists doing that work in the schools; the care of the teeth—we have dentists upon the payroll who are doing that work now; and in a few of the other specialties, through clinics of

great variety, that work is being taken over gradually at public expense, and as Mayor of Philadelphia I sometimes feel at the expense of the private practitioner of the great Commonwealth of Pennsylvania. But I trust that, whatever controversy may arise in respect to the institutions and the socialization of medicine and dentistry, the private physician, proud of his position, blessed in his traditions, will hold his own ground and stand on his own feet. I thank you.

THE PRESIDENT: I notice three former Presidents of this Society, Drs. Codman, Van Sickle, and Jump, in the audience. If they will join on the stage, this aggregation of past-Presidents which honors this Society this morning by their presence, we will have gathered here every living past-President but one, and I saw him about this morning. I do not know whether you realize it or not, but there must be something about being President of The Medical Society of the State of Pennsylvania that keeps a man looking young. If you will gaze upon these distinguished gentlemen I know you will appreciate that thought.

I will call upon Walter S. Cornell, President of the Philadelphia County Medical Society, to give us a few words of welcome.

ADDRESS OF WELCOME

WALTER S. CORNELL, *President, Philadelphia County Medical Society*. Mr. President, Members of the State Society: That was a very enlightening address we heard from the Mayor. The few words I have to say will be in the nature of an anticlimax. I wish to say to those who have come from over the State that I am glad it is a fine day. I have been in many towns in which I realize that my recollection is based largely upon the condition of the weather. If it was bright and sunny the town looked nice, and we could not ask for better weather than this.

Second, I wish to express my hope that you will have an interesting time. I do not say that in any patronizing spirit, such as a man living in a big city might use to his friends from smaller towns. I learned years ago that the men in the small towns are the real cosmopolitans; they know more about things in the large cities than the men who live there and think they know everything and just sit right at home. So when I say I hope you will have an interesting time I am sensible enough to refer to our program, which is really fine and creditable. But if I may say something about my own city, I should like to call your attention to The Parkway near by—you will not see anything more beautiful in America.

I should like to emphasize that Mayor Moore is one of our great mayors. Some are great by reason of their construction plans. Mayor Raeburn built the Parkway. He served at a time when the city building costs were not so high. To the present Mayor has fallen the job of straightening out the city's finances. But he has not increased the municipal debt, and he is balancing the budget.

It is really a pleasure to welcome you. Dr. Falkowsky was a classmate of mine. The years have brought changes, but here we are today on the same platform. I wish to welcome him first of all.

I wish to say, in behalf of the County Society, that we are glad to have you come here whenever you can. It is a pleasure to us to meet in other parts of the State; we have a good time when we go to other cities, but you cannot find any place in which you will receive better scientific information, given to you by men well trained, than in a great metropolis like this, and cer-

tainly if it is thought best to meet here and there about the State I hope it will be a fixed policy to return here very often. We will be very glad to see you every time.

THE PRESIDENT: Next will be the Presentation of the Scientific Program, by Charles C. Wolferth, Chairman of the Committee on Scientific Work.

PRESENTATION OF SCIENTIFIC PROGRAM

CHARLES C. WOLFERTH, *Chairman, Committee on Scientific Work*: Mr. President, Mr. President-Elect, Members of the Society, and Guests: The Committee on Scientific Work recognizes the fact that the success of the annual meeting depends largely upon the quality of the scientific program. Our fellow members have the right to expect an opportunity to hear presentations which best exemplify real progress in medicine. The Committee has accepted its responsibility cheerfully, and has spared no effort to fulfill its obligations. Prominent members of our Society who were asked to contribute to the program have accepted almost unanimously. Our distinguished guest speakers have devoted, for our benefit, precious time and effort necessary for the preparation of their addresses and their presence at the meeting. To these men and women the Committee wishes to express its deepest gratitude. We wish also to acknowledge our debt to our fellow worker, Walter F. Donaldson, Secretary of the State Society, whose great experience, wise counsel, and generous help have always been available.

It is scarcely necessary to remind this audience that general practice is the most important field of medicine. It has always required much knowledge and experience to become a master of this great art. With the rapid advance of medical knowledge on many fronts it has become increasingly difficult to keep abreast and bring to patients the benefits of these advances. Though it is true that medical practice has been simplified in certain directions, it has nevertheless for the most part become more complex. The Committee felt that it could have no higher objective than to attempt to arrange a program which would deal with those aspects of scientific progress which pertain to general practice. We are confident that our essayists will be able to present their subjects in such a way as to clarify and simplify them rather than to render them more complex.

The value and interest of the presentations can be greatly enhanced by lively, brief and pertinent discussions. It is hoped, therefore, that the members will take part in discussion, whether this takes the form of asking questions, amplifying important points, or expressing opinions at variance with those of the essayist. We are here to learn what we can; frank, intelligent, and critical discussions carried out in a friendly spirit will help us to arrive at a well-balanced point of view.

Time does not permit discussion of the many features of this program. It is worth noting, however, that the practice of having joint section meetings was abandoned for this year to insure the greatest possible diversification of subject matter and a corresponding opportunity for wider choice on the part of members. A careful study of the program will enable every one to make out a schedule for himself which will include those things he most wishes to hear. In this connection, the Committee wishes to point out that the younger and perhaps less widely known essayists are no less worth hearing because their names may not yet be familiar to all. They have been selected because they have done work which has a significant bearing on some phase of medical practice. Each one has an important message.

Our Society has great prestige and importance. The program must be in keeping. We are honored this year by the presence of many notable men, including the

distinguished President of the American Medical Association, who will address us tomorrow morning. The Committee confidently hopes and believes that the program offered is in accord with the finest traditions of our great Society.

THE PRESIDENT: We will now hear announcements regarding the Scientific Exhibit, by Fred D. Weidman, of Philadelphia.

ANNOUNCEMENT OF SCIENTIFIC EXHIBIT

FRED D. WEIDMAN, *Philadelphia, Chairman of Committee on Scientific Exhibit*: Mr. President, Members, and Guests: I wish I had time to make full acknowledgment of the assistance I have received in getting together the Scientific Exhibit, but it cannot be done. I can only mention the coöperation of the Philadelphia County Medical Society, the State Society officers, and the individual contributors. One of the biggest thrills I get out of this work is the way our men respond when approached.

As in the case of the scientific program, we have omitted in the Scientific Exhibit, or avoided as much as possible, technicalities; that is, we serve the general practitioner of medicine rather than the specialist.

You will note this year in your program our attempt to correlate the material presented in the Scientific Exhibit with the topics that are to be dealt with in the formal essays before the different scientific sections, using parentheses and asterisks both in connection with the Scientific Exhibit program and the regular section meetings.

As to the subject matter in the Exhibits, I can only mention three outstanding topics. Your program gives you ample announcement of what is in store for you. I only mention, therefore, an outstanding exhibit on cancer. There are unusually numerous planned roentgen-ray exhibits. There is a bronchoscopic "view-box" placed at our disposal with demonstrators to amplify the subject of bronchial neoplasm. In heart disease the Pennsylvania Association of Cardiology and the Philadelphia Association have joined hands in a splendid exhibit of this subject. Then for the first time we have brought to your attention one of the new activities of our own State Society. You will recognize this exhibit. On the back wall there is a beautiful map of Pennsylvania, and indicated thereon the location of certain newspapers in Pennsylvania which are coöperating with the State Society committees in publishing health discussions made attractive to newspaper readers. The particular point to which I call your attention is the question at the bottom of the entire exhibit—Is your particular county medical society joining hands in this plan? It is the purpose of this exhibit to develop 100 per cent coöperation and enrollment in this scheme whereby authoritative facts will be brought before the people; and furthermore, that this information will come to them, not through some particular individual or syndicated releases, but through the newspapers of the counties in the name of the county medical society. Details of this new feature by the State Society will be explained at the booth.

Last, I have a plea—please visit the Exhibit. Circulate, and see what has been arranged for you; ask questions, enter into conversation with those who eagerly await you at each booth. It is always a labor to get these materials together, and it is a labor and a duty to stay and demonstrate the exhibits at all times. Do not hesitate to introduce yourself, ask for further information about anything that is not entirely clear in the Exhibit.

THE PRESIDENT: I want you all to be sure to visit the Scientific Exhibit because it really is the practical educational part of this entire meeting.

I shall now call on George C. Yeager, of Philadelphia, Chairman of the local Committee on Arrangements.

ANNOUNCEMENT OF ENTERTAINMENTS

GEORGE C. YEAGER, *Philadelphia, Chairman, Committee on Arrangements*: The Committee on Arrangements have planned a dinner and entertainment tonight. We are not calling it a "smoker," but "dinner and entertainment." We want the women members to be there, too. A separate section will be reserved for the alumni of the University of Pennsylvania, for the alumni of Jefferson, Medico-Chirurgical, Temple, University of Pittsburgh, and so on. The members of the Medical Club, who are also members of the County and State Society, will be your hosts tonight together with the County Society.

I wish to call your attention to the Public Meeting tomorrow evening. Dr. Morris Fishbein has a very important message for every doctor in this State, and he also has a very important message for social service workers. If you have laymen friends who are interested in health and social service work, I ask that you give them a special invitation, and endeavor to bring them with you to this meeting. There will be a very attractive musical program also. I wish to pay particular tribute to those who are trying to make this meeting a success. We should like to have it reach the high point as regards attendance, but more especially are we anxious to have it reach the high point as regards medical education. I am particularly happy that the Chairman of the Committee on Scientific Program and the Chairman of the Committee on Scientific Work are such efficient men. They have attempted to what we might call, synchronize the Scientific Exhibit and the Scientific Program. That was the policy of the American Medical Association at their meeting in Philadelphia in 1931. They have never succeeded more than 18 per cent in working this out. Through the wonderful efficiency of Dr. Wolferth and Dr. Weidman we have achieved 25 per cent of synchronization, and I wish personally to take this opportunity to thank these very efficient, hard-working chairmen and their scientific section associates for arranging what we think will be the best and most enlightening scientific meeting the State Society has ever had.

THE PRESIDENT: We will now hear from the delegate from the Pennsylvania Pharmaceutical Association.

JOHN C. WALTON, *Philadelphia*: Representing the Pennsylvania Pharmaceutical Society, I wish to extend the greetings of that Society to The Medical Society of the State of Pennsylvania. I hope you will have a pleasant and profitable stay in Philadelphia. I thank you.

ROSS V. PATTERSON, *Philadelphia*: President Falkowsky, I come out of the obscurity of the back row of this collection of former Presidents to which reference was made this morning to perform an office in the name of the Board of Trustees and the membership of The Medical Society of the State of Pennsylvania. It is an almost universal custom on the retirement of a presiding officer to present some token of regard and esteem as a symbol of the affection and appreciation held for him by the organization, and it is as spokesman for this organization that I desire to make such a presentation. I was somewhat doubtful as to the reason for my selection, and then it came to me quite clearly. Three years ago this Society inaugurated a very wise policy

in determining the qualifications of its presiding officer by selecting only bachelors. I have the distinction of being the first, succeeded by Dr. Mayer, who in turn was succeeded by you, Sir. You know what happened as regards Mayer—he walked out on us. You, therefore, will be especially welcomed by me to the back row, and we will have our work cut out for us in endeavoring to see that this custom, so well inaugurated, is continued in the future. I know you will be glad to know there is something to do in the back row, and that you and I will be very happy together in this endeavor.

I am sure I voice not only my personal pleasure, my personal regard for the work which you have done, Sir, but that every member of this Society is highly appreciative of the very creditable way in which you have carried on the work of this organization. Simply as a symbol, as a token, something that may remind you of this esteem and appreciation, I present to you, Sir, this gavel.

THE PRESIDENT: I appreciate this token very much, Dr. Patterson, and I want to assure you that in so far as I know I will continue in the ranks of bachelor past-Presidents, and I sincerely trust other Presidents will be bachelors, so that we may form a group.

One of the great privileges that comes to the President of The Medical Society of the State of Pennsylvania is that of installing his successor. I do not know that in the history of this Society we have ever elected a man to the office of President more capable of carrying on than Dr. Donald Guthrie, of Sayre, whom I now present to you. He will address you and tell you of his hopes and policies for the coming year, and I prophesy that next year will be one of the best our Society has ever had. Dr. Guthrie.

The President then read his address (published in October, 1933, PENNSYLVANIA MEDICAL JOURNAL), after which the first General Meeting adjourned.

CHARLES FALKOWSKY, JR., *President*,
WALTER F. DONALDSON, *Secretary*.

Wednesday, Oct. 4, 1933

The second General Meeting convened at nine o'clock, Wednesday morning, Oct. 4, in the Ballroom, Bellevue-Stratford Hotel, Philadelphia, with Charles C. Wolferth, Chairman of the Committee on Scientific Work, presiding.

John O. Bower, Philadelphia, read a paper entitled "Acute Appendicitis." Discussed by Donald Guthrie, Sayre; Theodore B. Appel, Lancaster.

Chevalier Jackson and Chevalier L. Jackson, Philadelphia, presented a paper on "Bronchial Obstruction with Special Reference to Endobronchial Tumors." No discussion.

George P. Müller, Philadelphia, read a paper entitled, "Influence of the Anesthetic Upon the Risk of Operation." Discussed by Charles C. Wolferth, Philadelphia; Harold L. Foss, Danville; John O. Bower, Philadelphia, and George P. Müller.

William L. Estes, Jr., Bethlehem, read a paper entitled "Conditions that Require Nephrectomy." Discussed by Frederick A. Bothe, and Charles C. Wolferth, Philadelphia; and William L. Estes, Jr.

P. Brooke Bland, Philadelphia, read a paper entitled "The Prevention of Maternal Mortality from Hemorrhage in Pregnancy and Labor." No discussion.

Alexander H. Colwell, Pittsburgh, read a paper entitled "Cardiac Patients as Surgical Risks." Discussed by Albert E. Roussel, Philadelphia; Charles P. Noble, Radnor, and Alexander H. Colwell.

Dean Lewis, Baltimore, read a paper entitled "Tumors of the Sympathetic Nervous System."

The second General Meeting adjourned.

CHARLES C. WOLFERTH, *Chairman*.
HENRY G. MUNSON, *Secretary*.

Thursday, Oct. 5, 1933

The third General Meeting convened at nine-thirty Thursday morning, Oct. 5, in the Ballroom, Bellevue-Stratford Hotel, Philadelphia, Charles C. Wolferth presiding.

Edward J. G. Beardsley, Philadelphia, read a paper entitled "Evils Associated with Mistaken Pessimistic Prognosis." No discussion.

John H. Stokes, Philadelphia, read a paper entitled "Positive Wassermann Reaction as a Guide to Treatment and Management of Seropositive Latency in Syphilis." No discussion.

Henry K. Pancoast, Philadelphia, read a paper entitled, "The Widening Field of Radiology." Discussed by Judson Daland, Philadelphia, and Henry K. Pancoast.

T. Grier Miller, Philadelphia, read a paper entitled "Medical Versus Surgical Treatment of Gallbladder Disease." Discussed by Charles C. Wolferth, Henry K. Pancoast, and James H. Arnett, Philadelphia; and T. Grier Miller.

Henry T. Price, Pittsburgh, read a paper entitled "Nutrition in Children from the Standpoint of a Medical Adviser of the State Emergency Relief Board." Discussed by Judson Daland, Philadelphia.

O. H. Perry Pepper, Philadelphia, read a paper entitled "Unfavorable Action of Some Common Drugs." Discussed by Max Levin, Harrisburg; and Albert E. Roussel, Philadelphia.

John Alexander, Ann Arbor, Michigan, read a paper entitled, "Important Applications of Thoracic Surgery."

THE CHAIRMAN: On behalf of the Society I wish to thank Dr. Alexander for his beautiful exposition of what is happening in his very interesting and rapidly progressing field of work.

The third and last General Meeting adjourned.

CHARLES C. WOLFERTH, *Chairman*.

MINUTES OF THE SECTION ON MEDICINE

Tuesday, Oct. 3, 1933

The Section on Medicine convened in the Ballroom, Bellevue-Stratford Hotel, Philadelphia, at 2 p. m., and was called to order by Chairman Clifford C. Hartman, Pittsburgh.

In the period from 2 to 2:55 p. m. the following papers were presented: "Clinical Diagnosis of Coronary Disease," by Howard G. Schleiter, Pittsburgh; "Electrocardiogram in the Diagnosis of Coronary Occlusion," by Francis C. Wood, Philadelphia; "Treatment of Coronary Artery Disease," by Charles H. Miner, Wilkes-Barre.

These papers were discussed by Charles C. Wolferth, Philadelphia; William D. Stroud, Philadelphia.

In the period from 3 to 4:55 p. m., the following papers were presented: "Bright's Disease, the Newer Orientation Regarding Classification, Pathogenesis, and Treatment," by William S. McCann (guest), Rochester, N. Y.; "The Fundamental Principles of Specific Calcium Therapy," by Abraham Cantarow, Philadelphia; "New Developments in Relation of Nutrition to Normal and Abnormal Pregnancy," by John Cooke Hirst, Phila-

delphia; "Clinical Manifestation of Vitamin B Deficiency in Adults," by Katherine O'S. Elsom, Philadelphia; "Differential Diagnosis Between Cardiac Asthma and Bronchial Asthma," by Leo H. Crip, Pittsburgh.

These papers were not discussed.

The Section adjourned at 5 p. m.

Wednesday, Oct. 4, 1933

The Section on Medicine convened in the Ballroom, Bellevue-Stratford Hotel, Philadelphia, at 2 p. m., and was called to order by Chairman Clifford C. Hartman, Pittsburgh.

In the period from 2 to 3 p. m., the following papers were presented: "An Analysis of Two Hundred Cases of Epigastric Pain," by John T. Eads, Philadelphia; "Mucin Treatment of Peptic Ulcer," by Clement R. Jones, Pittsburgh; "Toxic Cirrhosis of Liver Due to Cinchophen and Its Derivatives," by Stanley D. Conklin, Sayre.

These papers were discussed by Leonard G. Rowntree, Philadelphia; Samuel L. Immerman, Philadelphia.

"Observations of a Recent Epidemic of Jaundice in the Roaring Creek Valley," was presented by Henry F. Hunt, Danville; Charles L. Johnston, Catawissa; George P. Moser, Ringtown.

There was no discussion.

William deB. MacNider (guest), Chapel Hill, N. C., presented a paper entitled "Acquired Resistance of the Liver and Kidney to Certain Chemical Substances."

This paper was discussed by Alfred N. Richards, Philadelphia (by invitation); and, in closing, by Dr. MacNider.

In the period from 4 to 5 p. m., the following papers were presented: "Newer Conceptions of the Use of Carbohydrates in Diabetes," by Francis D. W. Lukens, Philadelphia; "Nonsurgical Treatment of Diabetic Gangrene and Infections of the Lower Extremity," by Edward S. Dillon and Lewis H. Hitzrot, Philadelphia; "Use of Autolyzed Tissue in the Treatment of Anemia," by William F. Herron and Alfred S. McElroy, Pittsburgh; "Small Volumes of Water Parenterally," by William J. Schatz, Allentown.

There was no discussion of these papers.

Dr. Hartman thanked the essayists of the afternoon for their splendid contributions to the program.

The Section adjourned at 5:05 p. m.

Thursday, Oct. 5, 1933

The Section on Medicine convened in the Ballroom, Bellevue-Stratford Hotel, Philadelphia, at 1:30 p. m., and was called to order by Chairman Clifford C. Hartman, Pittsburgh.

The chairman presented the following recommendations from the Executive Committee for officers for the ensuing year: Chairman, Carl E. Ervin, Danville; Secretary, William D. Stroud, Philadelphia. Upon motion, regularly seconded and carried, the recommendations of the Executive Committee were approved and Drs. Ervin and Stroud were unanimously elected.

In the period from 1:30 to 3:30 p. m., the following papers were presented: "Postural Treatment of Visceroptosis," by William O. Abbott, Philadelphia; "Importance of Accurate Medical Histories and Careful Physical Histories and Careful Physical Examinations in Lowering the Cost of Medical Service," by Alfred Stengel, Philadelphia; "Pernicious Leukopenia (Agranulocytic Angina)," by Thomas Fitz-Hugh, Jr., Philadelphia; "Functional Disturbances of the Colon: Diagnosis and Management," by Henry L. Bockus and

John H. Willard, Philadelphia; "Diseases of the Chest and of the Abdomen and Their Mimicry of Each Other," by David Riesman, Philadelphia.

There was no discussion of these papers.

The chairman expressed his thanks and appreciation to those who had made this excellent program possible.

Adjournment at 3:10 p. m., *sine die*.

CLIFFORD C. HARTMAN, Chairman,
CARL E. ERVIN, Secretary.

Total members registered in Section on Medicine—857.

Members Registered in Section on Medicine

ADAMS COUNTY SOCIETY.—D. B. Coover, Littletown; W. H. Miller, New Oxford.

* ALLEGHENY COUNTY SOCIETY.—J. C. Chornyak, L. H. Crip, Theodore Diller, W. F. Donaldson, Orlando Fouse, M. A. Gould, A. H. Gross, Bellevue; C. C. Hartman, C. H. Henninger, W. F. Herron, C. R. Jones, S. E. Lambert, Sewickley; W. N. Marshall, Aspinwall; W. R. Marshall, Aspinwall; W. H. Mayer, G. B. Meyers, C. J. Newcomb, Bellefonte; H. G. Schleiter, T. G. Simonton, R. R. Snowden, C. J. Steim, Oxford; J. M. Thorne, F. B. Utley, W. H. Weinberg, H. C. Westervelt, K. S. Wisemen, Mayview; B. B. Wood.

ARMSTRONG COUNTY SOCIETY.—J. B. F. Wyant, Kittanning.

BEAVER COUNTY SOCIETY.—T. W. McCreary, Monaca; F. B. Wilson, Beaver.

BEDFORD COUNTY SOCIETY.—G. S. Enfield, Bedford.

BERKS COUNTY SOCIETY.—R. M. Alexander, A. H. Bauscher, Reading; J. S. Borneman, Boyertown; J. L. Bower, Birdsboro; H. P. Brunner, Hiester Bucher, N. W. Elton, L. W. Frederick, Reading; E. D. Funk, Wyomissing; H. A. Gorman, Hamburg; I. H. Hartman, C. M. High, Reading; R. L. Hill, S. S. Hill, Wernersville; J. H. Horne, Womelsdorf; C. K. Kistler, W. F. Krick, H. D. Kunkel, Reading; C. E. Lerch, Wyomissing; G. K. Levan, Reading; L. J. Livingood, Womelsdorf; Daniel Longaker, Reading; F. P. Lytle, Birdsboro; H. U. Miller, Mount Penn; G. F. Potteiger, Hamburg; L. R. Rothermel, Shillington; C. E. Schlappich, Birdsboro; H. P. Shellabear, I. G. Shoemaker, H. L. Strause, S. B. Taylor, R. C. Travis, W. W. Werley, Reading.

BLAIR COUNTY SOCIETY.—A. S. Kech, Altoona; W. L. Lowrie, Tyrone; W. H. Meminger, Juniata.

BRADFORD COUNTY SOCIETY.—P. N. Barker, Troy; S. D. Conklin, Sayre; A. E. Dann, Canton; H. C. Down, Towanda; M. S. Martin, Dushore; P. H. Schwartz, Towanda.

BUCKS COUNTY SOCIETY.—H. L. Bassett, Yardley; H. T. Crough, Doylestown; W. S. Erdman, Buckingham; W. J. Hendricks, Perkasie; C. T. Hunter, Newtown; W. C. LeCompte, Frank Lehman, Bristol; W. G. Moyer, Quakertown; W. L. Noe, Jr., Southampton; J. E. Packer, Newtown; R. D. Tice, Quakertown; R. B. Wallace, New Hope.

CAMBRIA COUNTY SOCIETY.—A. A. Basil, J. J. Meyer, H. W. Salus, G. F. Wright, Johnstown.

CARBON COUNTY SOCIETY.—J. L. Bond, Lehighton.

CENTER COUNTY SOCIETY.—P. M. Corman, Bellefonte; P. H. Dale, State College; R. H. Hoffman, Bellefonte.

* Where no address is given, Pittsburgh is indicated.

CHESTER COUNTY SOCIETY.—M. K. Amdur, Coatesville; W. W. Betts, Chadds Ford; C. J. Brower, Spring City; C. C. Bullock, West Chester; W. B. Ewing, West Grove; J. A. Farrell, West Chester; I. P. P. Hollingsworth, O. J. Klevan, West Chester; C. S. Kurtz, Malvern; H. Y. Pennell, Henry Pleasants, Jr., West Chester; Mitchell Seltzer, Phoenixville; W. T. Sharpless, West Chester; J. T. Taylor, Pomeroy.

CLARION COUNTY SOCIETY.—C. C. Ross, Clarion.

CLEARFIELD COUNTY SOCIETY.—J. P. Frantz, S. J. Waterworth, Clearfield; H. L. Woodside, Bigler.

CLINTON COUNTY SOCIETY.—D. W. Thomas, Lock Haven.

COLUMBIA COUNTY SOCIETY.—Ambrose Shuman, Catawissa.

CRAWFORD COUNTY SOCIETY.—O. H. Jackson, Meadville; H. H. Walker, Linesville.

CUMBERLAND COUNTY SOCIETY.—C. O. Fry, Newville; H. C. Lawton, Camp Hill.

DAUPHIN COUNTY SOCIETY.—J. H. Anderson, Harrisburg; G. H. Barnd, Williamstown; Park Berkeheimer, Hummelstown; D. S. Funk, D. J. Hetrick, H. E. Klase, Harrisburg; D. E. Hottenstein, Millersburg; J. B. McAlister, R. J. Miller, Harrisburg; H. C. Myers, Steelton; P. A. Petrie, C. R. Phillips, Harrisburg; H. H. Rhodes, Middletown; R. F. L. Ridgway, W. C. Sandy, L. E. Shaw, Harrisburg.

DELAWARE COUNTY SOCIETY.—C. S. Aitken, Brookline; R. E. Bell, Media; E. E. Brown, Chester; A. H. Claggett, Drexel Hill; H. C. Donahoo, J. F. Dunn, Chester; C. DeE. Edgett, Norwood; Herman Gold, W. H. Goodman, Chester; E. M. Harvey, Media; W. E. Kepler, Upper Darby; J. A. McKenna, Lansdowne; R. N. Miller, Upper Darby; M. A. Neufeld, Chester; H. E. Orndoff, Glen Riddle; Richard Owen, Prospect Park; A. R. Rozploch, Chester; H. F. Scholl, Moores; M. McD. Shick, Elwyn; G. B. Sickel, Swarthmore; I. J. Stankus, Philadelphia; H. A. Stecher, Brookline; J. W. Wood, Chester.

ELK COUNTY SOCIETY.—G. M. Hutchinson, Ridgway.

ERIE COUNTY SOCIETY.—J. S. Irwin, G. A. Reed, Erie; A. G. Rees, Corry; J. D. Stark, J. H. Tate, K. S. Treiber, Erie.

FAYETTE COUNTY SOCIETY.—H. J. Bell, Dawson; H. A. Heise, Uniontown; A. D. Hunger, Point Marion; E. R. Ingraham, Masontown; P. D. Luckey, Connelville; C. H. Smith, Uniontown; L. C. Waggoner, Brownsville.

FRANKLIN COUNTY SOCIETY.—C. C. Custer, South Mountain; P. D. Hoover, Waynesboro; H. C. McClain, Hustontown; R. H. McCutcheon, South Mountain; Alexander Stewart, Shippensburg; J. H. Swan, St. Thomas.

GREENE COUNTY SOCIETY.—W. S. Frankenburger, Carmichaels.

HUNTINGDON COUNTY SOCIETY.—H. V. Locke, Orbisonia; Walter Orthner, Huntingdon.

INDIANA COUNTY SOCIETY.—A. H. Stewart, Indiana.

JEFFERSON COUNTY SOCIETY.—Walter Dick, Brookville; J. G. Kearney, Reynoldsville.

JUNIATA COUNTY SOCIETY.—I. G. Headings, McAlisterville.

LACKAWANNA COUNTY SOCIETY.—J. J. Brennan, A. E. Davis, W. T. Davis, W. M. Donovan, Charles Falkowsky, Jr., H. M. Kraemer, J. D. Lewis, F. W. Stevens, Scranton; H. E. Vale, Jessup.

LANCASTER COUNTY SOCIETY.—T. B. Appel, W. K. Baer, Lancaster; J. A. Boyd, Christiana; C. S. Duttenhofer, Churchtown; J. H. Esbenshade, T. Q. Garvey, F. G. Hartman, S. M. Hauck, Lancaster; B. E. Herbert, Columbia; J. T. Herr, Landisville; J. E. Hostetter, Gap; H. C. Kinzer, W. J. Leaman, H. H. Seiple, J. S. Simons, S. S. Simons, Lancaster; Vere Treichler, Elizabethtown; M. H. Yoder, Lititz; H. S. Zeimer, Adamstown.

LAWRENCE COUNTY SOCIETY.—J. F. Jenovese, Ellwood City; D. L. Perry, New Castle.

LEBANON COUNTY SOCIETY.—J. D. Boger, Lebanon.

LEHIGH COUNTY SOCIETY.—J. T. Butz, Allentown; J. H. Hennemuth, Emaus; W. F. Herbst, C. H. Kelchner, Allentown; H. E. Klingaman, K. M. Marcks, Emaus; J. D. Matz, Allentown; J. E. S. Minner, Egypt; A. M. Peters, W. J. Schatz, Allentown; W. B. Trexler, Fullerton; W. C. Troxell, M. B. Walkow, J. J. Wenner, Allentown.

LUZERNE COUNTY SOCIETY.—E. W. Bixby, W. J. Davis, Wilkes-Barre; J. M. Dyson, Hazleton; A. R. Feinberg, Wilkes-Barre; A. G. Gibbs, Nanticoke; W. L. Grala, E. F. Hanlon, Hazleton; J. A. Hugo, Nanticoke; C. H. Miner, Wilkes-Barre; G. A. Shuman, Edwardsville; G. J. Silewski, Nanticoke; I. R. Teitsworth, Kingston.

LYCOMING COUNTY SOCIETY.—L. E. Audet, Williamsport; W. M. Brenholtz, Muncy; W. S. Brenholtz, J. A. Campbell, Williamsport; I. T. Gilmore, Picture Rocks; J. L. Mansuy, Ralston; G. W. Muffy, Turbotville; J. S. Purnell, Mifflinburg; C. G. Remm, Hughesville; W. E. Turner, Montgomery.

McKEAN COUNTY SOCIETY.—Francis DeCaria, Bradford.

MERCER COUNTY SOCIETY.—P. E. Biggins, Sharpsville; W. W. Richardson, Mercer.

MIFFLIN COUNTY SOCIETY.—J. S. Brown, J. A. C. Clarkson, Lewistown; B. P. Steele, McVeytown; P. E. Whiffen, McClure.

MONROE COUNTY SOCIETY.—C. A. LeCates, Tamersville; T. I. Metzger, Stroudsburg.

MONTGOMERY COUNTY SOCIETY.—C. H. Arnold, Ardmore; A. C. Besse, E. S. Buyers, Norristown; J. H. Cloud, Ardmore; W. G. Catlin, Norristown; P. H. Corson, Plymouth Meeting; J. L. Eisenberg, J. M. Ellenberger, Remo Fabri, Norristown; W. E. Fine, Ambler; A. R. Garner, Norristown; John Harvey, Bryn Mawr; H. W. Hassell, Bridgeport; F. A. Heflin, B. F. Hubley, J. N. Hunsberger, Norristown; J. I. Hykes, Ardmore; G. R. Irwin, Bridgeport; A. G. Kershner, Reinhoehl Knipe, F. T. Krusen, Norristown; J. M. Markley, Schwenkville; A. C. Messmer, Ardmore; H. T. Moyer, Lansdale; H. C. Podall, R. D. Porter, Abington; R. K. Powell, Rosemont; E. T. Quinn, Jenkintown; A. M. Rapoport, Norristown; Leon Reidenberg, Pottstown; C. A. Rose, Ardmore; A. E. Sheppard, Pottstown; H. B. Shearer, Worcester; J. B. Sherbon, Pottstown; W. J. Stein, Ardmore; J. Q. Thomas, Conshohocken; J. G. Wilson, Norristown; W. J. Wright, Skippack.

MONTGOMERY COUNTY SOCIETY.—L. R. Chamberlain, C. E. Ervin, R. R. Hayes, H. F. Hunt, J. A. Jackson, Danville; C. L. Johnston, Catawissa.

NORTHAMPTON COUNTY SOCIETY.—C. E. Beck, Portland; E. J. Deibert, Hellertown; F. J. Dever, L. I. Fisher, Bethlehem; A. S. Fox, J. E. Fretz, Carl Gaines, Easton; J. Z. Heberling, M. L. Hockenberry, Bangor; J. E. Longacre, Northampton; M. W. Phillips, Chapin Quarries; Theodore Reichbaum, F. C. Roberts, Easton; Michael Stolfo, Bethlehem; W. G. Tillman, Easton; C. F. Welden, Bethlehem.

NORTHUMBERLAND COUNTY SOCIETY.—J. J. Donohue, W. J. Harris, Shamokin; E. K. Samuel, Mt. Carmel.

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MINUTES OF THE SECTION ON SURGERY

Tuesday, Oct. 3, 1933

The Section on Surgery convened in the Roof Garden Ballroom of the Bellevue-Stratford Hotel, Philadelphia, on Oct. 3, 1933, and was called to order by Chairman DeForest P. Willard, Philadelphia, at 2:00 p.m.

The first paper was read by Roy W. Mohler, Philadelphia, entitled "Vaginal Discharges and Their Treat-

ment," and discussed by Brooke M. Anspach, Philadelphia.

A paper entitled "Palliative Treatment of Advanced Carcinoma of the Cervix" was read by Charles A. Behney, Philadelphia, and discussed by Norris W. Vaux, Philadelphia; Lewis C. Scheffey, Philadelphia; and J. L. Weatherwax, Philadelphia.

J. Stewart Rodman, Philadelphia, read a paper entitled: "Adapting the Operation to the Patient in Gastric and Duodenal Surgery." (Lantern demonstration.)

John H. Gibbon, Philadelphia, read a paper entitled: "Treatment of Cancer of the Stomach."

These two papers were discussed by J. P. Griffith, Pittsburgh, and in closing by Dr. Gibbon.

A paper on "Treatment of Acute Cholecystitis" (lantern demonstration), was read by Harvey F. Smith, Harrisburg.

A paper on "Gallbladder Diseases in the Young" was read by Nelson P. Davis, Pittsburgh.

A paper on "End Results of Operations for Biliary Tract Disease," with lantern demonstration, was read by Isidor S. Ravdin, Philadelphia.

The last three papers were discussed by Damon B. Pfeiffer, Philadelphia; Moses Behrend, Philadelphia; and B. B. Vincent Lyon, Philadelphia.

Lyndon H. Landon, Pittsburgh, read a paper entitled: "Abdominal Emergencies Due to Trauma," which was discussed by Henry P. Brown, Jr., Philadelphia.

A paper entitled "Transplantation of the Ureters Into the Sigmoid," with lantern demonstration, by Walter Estell Lee and Leon Herman, Philadelphia, was read by Dr. Lee and discussed by Dr. Herman.

Adjournment at 5:15 p.m.

Wednesday, Oct. 4, 1933

The second session of the Surgical Section convened at 2 p.m. in the Roof Garden Ballroom, Bellevue-Stratford Hotel, and was called to order by Chairman DeForest P. Willard.

A paper entitled "Surgery in the Diabetic Patient, with an Analysis of 250 Cases," and "Preparation of the Diabetic for Surgery," with lantern demonstration, was read by Joseph T. Beardwood, Philadelphia.

A paper entitled "Surgical Management of the Diabetic," with lantern demonstration, was read by Frederick A. Bothe, Philadelphia.

These two papers on diabetes were discussed by Eldridge L. Eliason, Philadelphia; and in closing by Dr. Bothe.

Herbert B. Gibby, Wilkes-Barre, read a paper entitled: "A Study of One Hundred Cases of Breast Tumors" (lantern demonstration). This was discussed by Jonathan M. Wainwright, Scranton.

The Chairman in presenting the next speaker, said: "We have with us today a professor of surgery from Cornell Medical College whose work in thoracic surgery is well known to all of us. It gives me great pleasure to present George J. Heuer, of New York City."

George J. Heuer (guest), New York City, read a paper entitled: "Some Fundamental Aspects of Acute Empyema" (lantern demonstration). This was discussed by Samuel J. Waterworth, Clearfield.

The Chairman expressed the thanks and appreciation of the Surgical Section to Dr. Heuer for attending the Section and presenting such an excellent paper.

Willis F. Manges, Philadelphia, presented a paper on "The Roentgen-Ray Diagnosis in Lesions of the Esoph-

agus" (lantern demonstration). This was discussed by George W. Grier, Pittsburgh.

Charles H. Frazier, Philadelphia, presented a paper on "Comparison of the Results Obtained with Rectal Ether and Avertin Anesthesia in Cranial Surgery," with lantern demonstration, which was discussed by Edward W. Beach, Philadelphia.

Harold L. Foss, Danville, presented a paper on "Refinements in Technic of Thyroidectomy," with lantern demonstration, which was discussed by Donald Guthrie, Sayre; and Charles H. Frazier, Philadelphia.

Adjournment at 5:30 p.m.

Thursday, Oct. 5, 1933

The third session of the Surgical Section convened in the Roof Garden Ballroom, Bellevue-Stratford Hotel, at 1:30 p.m., Edward J. Klopp, Philadelphia, Secretary of the Section, presiding.

A paper entitled "End Results of Fractures of Long Bones in Children," with lantern demonstration, was presented by Adolph A. Walkling, Philadelphia, and discussed by William E. Delaney, Jr., Williamsport; Harvey C. Masland, Philadelphia; and J. Torrance Rugh, Philadelphia.

A paper entitled "Clinical Treatment of Certain Bone Diseases Due to Hyperfunction of the Parathyroid Glands," with lantern demonstration, was read by George Wagner, Philadelphia (by invitation), and discussed by A. Bruce Gill, Philadelphia.

A paper entitled "Cure of Inguinal Hernia" was read by Charles F. Nassau, Philadelphia, and discussed by William H. Howell, Altoona; and in closing by Dr. Nassau.

In presenting the next speaker Chairman Willard said: "It is with great pleasure that I introduce to this Section Dr. Sumner L. Koch of Chicago, a well-known authority on reconstructive surgery of the upper extremity."

Sumner L. Koch (guest), Chicago, presented a paper entitled, "Common Injuries of Nerves and Tendons of the Hand" (lantern demonstration).

The Chairman expressed to Dr. Koch the appreciation of the Surgical Section for his excellent paper.

A paper entitled "Low Back Pain," with lantern demonstration, was presented by J. Torrance Rugh, Philadelphia.

In closing the Chairman said, "I wish to thank those who have presented papers, and I personally want to thank Dr. Klopp for the splendid program which he prepared."

Final adjournment at 4:00 p.m.

DEFOREST P. WILLARD, *Chairman*,

EDWARD J. KLOPP, *Secretary*.

Total members registered in Section on Surgery—414.

Members Registered in Section on Surgery

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NORTHUMBERLAND COUNTY MEDICAL SOCIETY.—G. A. Deitrick, Sunbury; M. K. Gass, Sunbury; Alexander Slavcoff, Selinsgrove; H. F. Ulrich, Middleburg; F. O. Zillessen, Easton.

** PHILADELPHIA COUNTY MEDICAL SOCIETY.—F. C. Abbott, L. H. Adler, Jr., J. M. Alesbury, J. H. Allen, Isaac Andrussier, E. G. W. Auge, H. M. Angelucci, W. W. Babcock, H. E. Bacon, J. H. Baldwin, C. S. Barnes, Harvey Bartle, L. D. Bauer, E. W. Beach, J. B. Becker, C. A. Behney, Moses Behrend, B. R. Beltran, E. J. Bertin, P. B. Bland, D. C. Blechschmidt, F. B. Block, F. F. Borzell, F. E. Boston, F. A. Bothe, J. O. Bower, G. M. Boyd, J. W. Bransfield, J. A. Brooke, H. P. Brown, A. E. Burke, W. E. Burnett, Harry Cantor, J. B. Cardone, J. F. Carrell, B. H. Chandler, W. L. Clark, L. S. Cogill, J. N. Coombs, Meyer Corff, Lawrence Curtis, J. M. Deaver, E. H. Dench, G. M. Dorrance, H. A. Duncan, E. L. Eliason, W. T. Ellis, W. G. Elmer, W. C. Ely, G. C. Engel, J. P. Emich, L. D. Englerth, J. N. Epstein, S. L. Feldstein, Arthur First, J. M. Fisher, B. L. Fleming, Louis Fletcher, J. B. Flick, M. K. Formad, Isador Forman, W. G. Forman, Collin Foulkrod, Morris Franklin, C. H. Frazier, L. D. Frescoln, J. H. Frick, Germantown; J. C. Gayl, D. C. Geist, R. F. Gerlach, J. H. Gibbon, J. H. Gibbon, Jr., J. T. Gilbride, J. H. Girvin, Jacob Glauser, M. H. Gold, Lawrence Goldbacher, Ralph Goldsmith, S. B. Goldsmith, S. F. Gordon, F. C. Grant, H. H. Greenberg, J. H. Gunter, A. W. Hammer, F. C. Hammond, Benjamin Haskell, L. E. Hastings, Upper Darby; H. R. Hawthorne, W. O. Hermance, C. S. Herrman, Addinell Hewson, W. S. Higbee, E. T. Himson, J. C. Howell, D. M. Hoyt, E. M. Hughes, F. H. Hustead, H. B. Ingle, G. I. Israel, R. H. Ivy, P. N. Jepson, Louis Kaplan, F. M. Katar, H. R. Kauders, J. A. Kelly, J. W. Kennedy, W. T. Killian, R. A. Kimbrough, Louis Kimmelman, Simon Kimmelman, O. C. King, H. S. Kinloch, E. J. Klopp, J. W. Klopp, N. L. Knipe, Karl Kornblum, M. B. Kremens, Wilmer Krusen, A. D. Kurtz, J. S. Lawrance, G. M. Laws, Benjamin Leff, J. C.

Lerner, J. W. Levering, Jacob Levy, M. R. Lewis, Benjamin Lipshutz, V. A. Loeb, P. A. Loefflad, Daniel Longaker, R. W. Lorry, A. A. Lucine, C. B. Lull, F. C. Lutz, J. L. McCabe, P. A. McCarthy, J. Q. McDougald, J. A. McGlinn, E. G. Maier, W. F. Manges, Bernard Mann, J. P. Mann, F. A. Mantz, C. F. Martin, Wallace Martin, J. B. Mason, R. H. Meade, Jr., C. F. Mitchell, Francesco Mogavero, R. W. Mohler, J. B. Montgomery, C. H. Moore, W. F. Morrison, G. D. Morton, Honey Brook; G. P. Müller, D. P. Murphy, E. C. Murphy, C. F. Nassau, T. R. Neilson, J. P. North, T. E. Orr, G. W. Outerbridge, H. R. Owen, W. E. Parke, A. P. Parker, H. M. Parris, John Peoples, D. B. Pfeiffer, David Promin, G. J. Ratcliffe, J. S. Raudenbush, I. S. Ravdin, E. T. Reedy, C. B. Reynolds, J. L. Richards, Donald Riegel, F. R. Robbins, J. E. Roberts, J. J. Robrecht, J. S. Rodman, J. T. Rugh, W. J. Ryan, J. G. Sabol, E. R. Saleeby, H. J. Sangmeister, L. F. Scanlan, L. C. Scheffey, F. M. Schilling, W. H. Schmidt, H. E. Schock, J. D. Schofield, E. A. Schumann, E. T. Scott, Morris Segal, R. C. Seipel, T. A. Shallow, J. A. Sharkey, Henry Sigmond, C. D. Smith, F. C. Smith, C. M. Spangler, G. C. Speirs, F. R. Sprague, Haverford; C. J. Stamm, Harry Stuckert, M. C. Sturgis, Walter Sussman, A. W. Tallant, W. J. Taylor, W. H. Teller, T. T. Thomas, W. J. Thudium, J. J. Toland, Jr., O. J. Toland, S. E. Tracy, C. M. Turman, J. P. Turner, Leopold Vaccaro, N. W. Vaux, Jacob Walker, A. A. Walkling, W. J. Walsh, Jr., M. J. Ward, M. P. Warmuth, Miriam Warner, A. B. Webster, J. L. Werner, D. P. Willard, George Willauer, P. F. Williams, L. J. Wojczynski, F. E. Wolcoff, M. M. Wolfe, W. S. Wray, S. A. Zeritsky.

POTTER COUNTY MEDICAL SOCIETY.—J. H. Page, Austin.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—L. D. Heim, Schuylkill Haven; C. H. Knauer, Mahanoy City; A. S. Ryland, Pottsville; E. E. Shifferstine, Coaldale.

TIOGA COUNTY MEDICAL SOCIETY.—L. G. Cole, Blossburg.

VENANGO COUNTY MEDICAL SOCIETY.—J. R. Sharp, F. M. Summerville, Oil City.

WARREN COUNTY MEDICAL SOCIETY.—W. M. Cashman, Warren.

WASHINGTON COUNTY MEDICAL SOCIETY.—J. H. Corwin, Washington; R. L. Lutz, Roscoe; P. P. Riggle, A. E. Thompson, Washington.

WESTMORELAND COUNTY MEDICAL SOCIETY.—A. B. Blackburn, Latrobe; D. R. Murdock, Greensburg; J. M. Snyder, New Kensington.

YORK COUNTY MEDICAL SOCIETY.—J. F. Bacon, B. A. Grove, York; J. F. Lutz, Glen Rock; R. H. Robertson, St. Davids.

MINUTES OF THE SECTION ON EYE, EAR, NOSE, AND THROAT DISEASES

Tuesday, Oct. 3, 1933

The first meeting of the Section convened at 2 p. m., Tuesday, Oct. 3, in the Clover Room, Bellevue-Stratford Hotel, Philadelphia, the Chairman, Matthew S. Ersner, of Philadelphia, presiding.

P. Harold Decker, Williamsport, read a Case Report entitled "Hereditary Weakness of the Suspensory Ligament of the Crystalline Lens." No discussion.

** Where no address is given, Philadelphia is indicated.

Nelson S. Weinberger, Sayre, read a paper entitled "Etiology of Chronic Iritis." Discussed by William Zentmayer, Philadelphia, and Nelson S. Weinberger.

John A. Weierbach, Quakertown, read a paper entitled "Diseases of the Uveal Tract." Discussed by Leighton F. Appleman, Philadelphia; Andrew Hunter, McKeesport; Samuel P. Glover, Altoona, and John A. Weierbach.

James J. Monahan, Shenandoah, read a paper entitled "Three Hundred Consecutive Industrial Eye Injuries." Discussed by Charles E. G. Shannon, Philadelphia; Leonard G. Redding, Scranton; John F. Culp, Harrisburg; George H. Cross, Chester, and James J. Monahan.

Solon L. Rhode, Reading, read a paper entitled "Conservative Treatment in Perforating Wounds of the Eyeball." Discussed by Edward Stieren, Pittsburgh; Luther C. Peter, Philadelphia; W. I. Lillie, Philadelphia, and Solon L. Rhode.

Mark Schoenberg (guest), New York City, read a paper entitled "Discussion of the Newer Operations for Retinal Detachments."

On motion of Hunter S. Turner, seconded by Edward B. Heckel, a rising vote of thanks was extended to Dr. Schoenberg for his presentation.

Alvin A. Schlegel, Pittsburgh, read a paper entitled "Diseases of the Eyelids. A Consideration of the Less Rare Medical Afflictions of the Eyelids." Discussed by J. Milton Griseom, Philadelphia.

Henry W. George, Middletown, read a "Report of the International Congress of Ophthalmology, Madrid, Spain."

Adjournment.

Wednesday, Oct. 4, 1933

The second meeting of the Section convened at 2 p. m., Wednesday, Oct. 4, in the Clover Room, Bellevue-Stratford Hotel, Philadelphia, the Chairman, Matthew S. Ersner, of Philadelphia, presiding.

The Chairman read his address entitled "The Duty of the Otologist to the General Practitioner."

Julius Winston, Philadelphia, read a Case Report entitled "Suppurative Labyrinthitis Complicating Acute Purulent Otitis Media." No discussion.

J. Landis Zimmerman, Harrisburg, read a Case Report entitled "Ewing's Sarcoma of the Mastoid." No discussion.

George W. Schlindwein, Erie, read a paper entitled "Sinusitis Infection in Which There Was Involvement on the Left Side of the Second, Third, Fourth, Fifth, Sixth, Seventh and Possibly the Ninth Nerves, with the Third and Fourth on the Right Side." Discussed by David N. Husik, Philadelphia; Philip S. Stout, Philadelphia, and George W. Schlindwein.

F. Earle Magee, Oil City, read a paper entitled "Management of Maxillary Sinus Infections." Discussed by William Hewson, Philadelphia; Samuel R. Skillern, Philadelphia; George W. Mackenzie, Philadelphia; Philip S. Stout, Philadelphia, and F. Earle Magee.

J. Homer McCready, Pittsburgh, read a paper entitled "Surgical Treatment of Intrinsic Cancer of the Larynx. Demonstration of Artificial Larynx." Discussed by Emily Lois Van Loon, Philadelphia; Louis H. Clerf, Philadelphia, and J. Homer McCready.

Thomas R. Gagon, Pittston, read a paper entitled "Sinus Disease in Children." Discussed by Israel Myers, Philadelphia; Herbert M. Goddard, Philadelphia; Henry S. Weider, Philadelphia.

Lewis T. Buckman, Wilkes-Barre, read a paper entitled "Mastoiditis; Its Rational Treatment." Dis-

cussed by Louis H. Weiner, Philadelphia; M. Valentine Miller, Philadelphia; George W. Mackenzie, Philadelphia; J. Landis Zimmerman, Harrisburg; Thomas R. Currie, Philadelphia, and Lewis T. Buckman.

Thursday, Oct. 5, 1933

The third meeting of the Section convened at 2 p. m., Thursday, Oct. 5, in the Clover Room, Bellevue-Stratford Hotel, Philadelphia, the Chairman, Matthew S. Ersner, of Philadelphia, presiding.

Election of Officers resulted as follows: Chairman, George H. Cross, Chester; Secretary, George W. Schlindwein, Erie.

J. Edward James, Bethlehem, read a Case Report entitled "History of a Mucoid Cyst of Maxillary Sinus Causing Epilepsy." No discussion.

George W. Mackenzie, Philadelphia, read a paper entitled "Stria Malleolaris and Its Clinical Significance." Discussed by James A. Babbitt, Philadelphia; William F. Whelan, Philadelphia, and George W. Mackenzie.

Francis W. Davison, Danville, read a paper entitled "Management of Acute Upper Respiratory Infection." Discussed by T. Carrol Davis, Philadelphia; Herman B. Cohen, Philadelphia; George B. Wood, Philadelphia; Robert A. Ridpath, Philadelphia; F. Earle Magee, Oil City; George W. Mackenzie, Philadelphia; Samuel R. Skillern, Philadelphia, and Francis W. Davison.

William Ersner, D.D.S. (by invitation) Philadelphia, read a paper, "Dental Conditions as They Concern the Otolaryngologist." Discussed by Walter L. Cariss, Philadelphia; Henry S. Weider, Philadelphia; Robert A. Ridpath, Philadelphia; Douglas Macfarlan, Philadelphia; David J. Goodfriend, Philadelphia, and William Ersner.

Robert J. Hunter, Philadelphia, read a paper entitled "Otitis Externa." Discussed by George B. Wood, Philadelphia; Abram H. Persky, Philadelphia, and Robert J. Hunter.

John J. Shea (guest), Memphis, Tennessee, read a paper entitled "Normal and Pathologic Development of the Sinuses."

The Section adjourned *sine die*.

MATTHEW S. ERSNER, *Chairman*,
GEORGE H. CROSS, *Secretary*.

Total members registered in Section on Eye, Ear, Nose and Throat Diseases—371.

Members Registered in Section on Eye, Ear, Nose, and Throat Diseases

* ALLEGHENY COUNTY MEDICAL SOCIETY.—W. L. Allison, R. J. Billings, G. E. Curry, C. S. Dimling, J. A. Hagemann, E. B. Heckel, Andrew Hunter, McKeesport; J. H. McCready, A. A. Schlegel, G. H. Shuman, Edward Stieren, H. H. Turner, T. C. Zeller, McKeesport.

BEDFORD COUNTY MEDICAL SOCIETY.—M. V. Brant, Schellsburg.

BERKS COUNTY MEDICAL SOCIETY.—A. A. Bobb, Paul Cahanowitz, I. B. High, F. W. Knoll, J. E. Landis, M. J. Penta, S. L. Rhode, J. A. Stockler, Reading.

BLAIR COUNTY MEDICAL SOCIETY.—L. P. Glover, S. P. Glover, F. K. Miller, Altoona; W. E. Preston, Hollidaysburg; L. S. Walton, Altoona.

BRADFORD COUNTY MEDICAL SOCIETY.—N. S. Weinberger, Sayre.

* Where no address is given, Pittsburgh is indicated.

BUCKS COUNTY MEDICAL SOCIETY.—J. A. Weierbach, Quakertown.

CAMBRIA COUNTY MEDICAL SOCIETY.—H. M. Griffith, Ray Parker, Johnstown.

CARBON COUNTY MEDICAL SOCIETY.—W. R. Bonner, Summit Hill; C. J. Kistler, Lehighton.

CENTER COUNTY MEDICAL SOCIETY.—J. V. Foster, State College.

CHESTER COUNTY MEDICAL SOCIETY.—T. G. Aiken, Berwyn; U. G. Gifford, Kennett Square; H. A. Rothrock, West Chester.

CLARION COUNTY MEDICAL SOCIETY.—C. L. Clover, Frank Vierling, Knox.

CLEARFIELD COUNTY MEDICAL SOCIETY.—H. C. Hughes, Dubois.

COLUMBIA COUNTY MEDICAL SOCIETY.—Henry Bierman, Bloomsburg.

CRAWFORD COUNTY MEDICAL SOCIETY.—F. A. Clawson, Meadville.

DAUPHIN COUNTY MEDICAL SOCIETY.—B. B. Bobb, Harrisburg; C. C. Bobb, Lykens; J. F. Culp, G. L. Dailey, B. M. Garfinkel, Harrisburg; H. W. George, Middletown; G. F. Gracey, J. W. Shaffer, Harrisburg; B. C. Shmukler, Philadelphia; J. L. Zimmerman, Harrisburg.

DELAWARE COUNTY MEDICAL SOCIETY.—E. H. Bcdrossian, A. L. Bishop, Drexel Hill; H. S. Busler, Lansdowne; G. H. Cross, Chester; R. W. Garlich, Upper Darby; A. V. B. Orr, Chester; P. C. Pike, Media; C. I. Stiteler, A. E. White, Chester.

ELK COUNTY MEDICAL SOCIETY.—J. C. McAllister, Ridgway.

ERIE COUNTY MEDICAL SOCIETY.—G. W. Schlindwein, Erie.

FRANKLIN COUNTY MEDICAL SOCIETY.—F. N. Emmert, Chambersburg.

HUNTINGDON COUNTY MEDICAL SOCIETY.—W. T. Hunt, Huntingdon.

JEFFERSON COUNTY MEDICAL SOCIETY.—R. C. Gourley, Punxsutawney.

LACKAWANNA COUNTY MEDICAL SOCIETY.—U. G. Anderson, Carbondale; F. J. Bishop, J. P. Donahoe, C. D. Miller, L. G. Redding, M. M. Rosenberg, J. J. Sullivan, Scranton.

LANCASTER COUNTY MEDICAL SOCIETY.—Roy Deck, Lancaster; W. C. Keller, Philadelphia; W. H. Lefever, W. G. Moorehouse, J. P. Roebuck, T. C. Shookers, E. J. Stein, Lancaster.

LAWRENCE COUNTY MEDICAL SOCIETY.—A. W. Shewman, New Castle.

LEBANON COUNTY MEDICAL SOCIETY.—J. J. Light, Lebanon.

LEHIGH COUNTY MEDICAL SOCIETY.—M. J. Backenstoe, Pasadena, California; W. J. Hertz, C. C. Rogers, G. F. Seiberling, J. M. West, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—L. T. Buckman, S. T. Buckman, G. W. Carr, Wilkes-Barre; J. J. Dailey, Hazleton; E. M. Ellsworth, Kingston; T. R. Gagon, Pittston; W. C. Marsden, Wilkes-Barre; C. E. Nicholson, Pittston; L. G. Wetterau, McAdoo.

LYCOMING COUNTY MEDICAL SOCIETY.—P. H. Decker, W. F. Kunkle, Williamsport.

MIFFLIN COUNTY MEDICAL SOCIETY.—J. G. Koshland, Lewistown.

MONTGOMERY COUNTY MEDICAL SOCIETY.—C. J. Flotte, Norristown; C. W. Hancox, Pottstown; E. F. Hemminger, Ardmore; G. L. Hoffman, Norristown; M. L. Kauffman, Jenkintown; H. P. Lakin, Lansdale; F. C. Parker, J. B. Price, Norristown.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—W. D. Chase, Bethlehem; W. F. Cope, C. C. Daigle, Easton; J. E. James, P. H. Kleinhans, Bethlehem; H. C. Pohl, Nazareth; G. L. deSchweinitz, Samuel Stouman, P. H. Walter, Bethlehem.

NORTHUMBERLAND COUNTY MEDICAL SOCIETY.—F. W. Davison, Danville; W. S. Wentzel, Sunbury.

** PHILADELPHIA COUNTY MEDICAL SOCIETY.—J. W. Anders, L. F. Appleman, J. A. Babbitt, B. F. Baer, Jr., Louis Baer, K. W. Baldwin, Simon Ball, Aaron Barlow, W. H. Barnes, W. C. Batroff, O. V. Batson, W. H. Bernhardt, J. A. Bertolet, C. C. Biedert, H. W. Boehringer, D. J. Boon, Sacks Bricker, F. J. Briglia, N. M. Brinkerhoff, R. S. Bromer, Bryn Mawr; S. H. Brown, S. A. Brumm, Mary Buchanan, F. L. Burns, Ralph Butler, M. M. Butt, J. T. Carpenter, A. E. S. Casey, Burton Chance, H. B. Cohen, L. H. Clerf, G. M. Coates, M. A. Cohen, Samuel Cohen, J. A. Colgan, R. C. Colgan, Alfred Cowan, J. A. Cramp, J. W. Croskey, J. F. Cunningham, T. R. Currie, J. L. Davis, T. C. Davis, W. B. Davis, A. P. Deak, L. W. Deichler, Perce DeLong, C. Q. DeLuca, G. E. deSchweinitz, J. H. Dewey, Henry Dintenfass, J. C. Donnelly, L. S. Dunn, Frank Embury, J. M. Endres, M. S. Ersner, C. C. Eves, G. T. Faris, Glenside; J. B. Feldman, C. L. Felt, A. G. Fewell, C. P. Franklin, C. J. V. Fries, Jr., J. S. Fritch, W. E. Fry, W. R. Gabrio, E. M. Gerlach, Ralph Getelman, E. S. Gifford, A. A. S. Giordano, S. J. Gittelson, E. B. Gleason, H. M. Goddard, A. O. Goldstein, William Gordon, J. F. Gorman, J. I. Gouterman, H. L. Gowens, Jr., W. P. Grady, C. P. Grayson, S. B. Greenway, C. H. Grimes, J. M. Griscom, Rose Harrison, William Hartz, E. G. Hawman, C. R. Heed, J. F. Herbert, Maxwell Herman, William Hewson, W. M. Hinkle, O. C. Hirst, A. F. Hofkin, E. J. Holland, T. B. Holloway, Merion; C. J. Houlihan, L. E. Hunt, R. J. Hunter, D. N. Husik, C. L. Jackson, G. E. Johnson, C. J. Jones, K. A. Kasper, J. H. Kates, A. S. Kaufman, T. C. Kelly, G. F. J. Kelly, E. W. Kemner, Upper Darby; J. C. Knipe, Andrew Knox, Moses Kopeika, Frederick Krauss, H. A. Laessle, D. J. Langton, O. L. Latchford, G. A. Lawrence, J. D. Leebron, C. W. LeFever, Louis Lefrfield, F. O. Lewis, R. M. Luken, R. A. Luongo, I. W. Lytle, Douglas Macfarlan, W. H. G. MacKay, Germantown; G. W. Mackenzie, L. F. McAndrews, C. T. McCarthy, B. H. Mann, G. M. Marshall, L. E. Marter, William Mathews, O. F. Mershon, E. B. Miller, M. V. Miller, E. K. Mitchell, Stephen Mitterling, G. H. Moore, W. F. Moore, Samuel Moss, C. R. Mullen, Upper Darby; F. A. Murphy, David Myers, Israel Myers, S. W. Newmayer, W. S. Nied, M. L. Nidelman, F. J. Noonan, T. A. O'Brien, S. L. Olsho, C. S. Pancoast, B. D. Parish, A. H. Persky, L. C. Peter, A. A. Pless, P. J. Pontius, C. A. Pryor, Burech Rachlis, McCluney Radcliffe, W. S. Reese, A. R. Renninger, R. F. Ridpath, S. S. Ringold, Walter Roberts, J. C. Rommel, M. A. J. Roseman, J. B. Rudolphy, W. J. Ryan, Maurice Saltzman, P. J.

** Where no address is given, Philadelphia is indicated.

Sartam, R. R. Saunders, A. C. Sautter, Germantown; E. S. Saylor, J. A. Scarano, H. W. Scarlett, Joseph Schenberg, H. P. Schenck, J. D. Seiberling, G. E. Shaffer, N. G. Shafritz, C. E. G. Shannon, J. S. Shipman, Merchantville, N. J.; W. T. Shoemaker, E. A. Shumway, B. H. Shuster, J. J. Simkins, S. R. Skillern, Jr., H. O. Sloane, H. B. Slotkin, Morris Smith, D. H. Solo, E. B. Spaeth, M. B. Sponsler, Warren Stirling, P. S. Stout, L. D. Sulman, H. T. Tanner, I. S. Tassman, James Thorington, J. M. Thorington, E. C. Town, Jr., Narberth; C. E. Towson, Germantown; Gabriel Tucker, E. L. Van Loon, Tacony; W. T. Van Pelt, A. J. Wagers, T. J. Walsh, W. W. Watson, W. N. Watson, Merion; Robert Watt, H. S. Weaver, Jr., W. L. Weber, H. L. Weiner, L. H. Weiner, Philip Weinstein, M. A. Weinstein, S. L. Weintraub, Berta Whaland, Bridgeton, N. J.; G. L. Whelan, H. S. Wieder, H. J. Williams, R. R. Williams, S. M. Wilson, Julius Winston, G. B. Wood, Arthur Wrigley, M. L. Yubas, M. A. Zacks, William Zentmayer, Merion.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—W. J. Cress, Pottsville; R. F. Fleck, Mahanoy City; J. J. Monahan, Shenandoah; I. E. Sausser, Valley View; T. L. Williams, Mt. Carmel.

SOMERSET COUNTY MEDICAL SOCIETY.—J. R. Hemminger, Somerset; C. I. Shaffer, Ralphton.

SUSQUEHANNA COUNTY MEDICAL SOCIETY.—R. B. Mackey, Montrose.

VENANGO COUNTY MEDICAL SOCIETY.—F. E. Magee, Oil City.

WASHINGTON COUNTY MEDICAL SOCIETY.—J. A. Gormley, Washington.

WESTMORELAND COUNTY MEDICAL SOCIETY.—H. R. Mather, Latrobe.

WYOMING COUNTY MEDICAL SOCIETY.—L. T. MacDougall, Tunkhannock.

YORK COUNTY MEDICAL SOCIETY.—C. L. Fackler, J. F. Klinedinst, York.

MINUTES OF THE SECTION ON PEDIATRICS

Tuesday, Oct. 3, 1933

Following a luncheon given at the Children's Hospital, 18th and Bainbridge Streets, Philadelphia, the Section on Pediatrics convened in the Assembly Room of the Hospital at 2 p. m., and was called to order by Chairman Emily P. Bacon, Philadelphia.

The first period from 2 to 4:15 p. m. was devoted to a Clinic conducted by the Hospital Staff, and Dr. Bacon turned the chair over to Joseph Stokes, Jr. The following case reports and papers were presented:

"The Regulation of the Diet in the Obese Child," "The Diabetic Child," "The Intramuscular Injection of Whole Blood," "Treatment of Diaper Rashes," "The Gas Bubble in Infant Feeding," "Malignant Hypertension," "Sedimentation Rate in Congenital Syphilis," "Spastic Colon in Children," "Cretinism Overtreated," "Physical Allergy," "Subacute Bacterial Endocarditis," "Continuous Venoclysis."

There was no discussion. Examination was made of the patients shown, and the equipment and specimens presented.

Dr. Bacon, on resuming the chair, thanked the members of the Hospital Staff for the excellent material presented.

Norbert D. Gannon, Erie, read a paper on "Hemorrhagic Disease of the Thymus."

Richard R. Spahr, Mechanicsburg, read a paper on "An Unusual Case of Retropharyngeal Abscess."

Herbert E. Hall, Uniontown, read a paper on "Practical Considerations Concerning Prevention of Disease."

These papers were discussed by Richard R. Spahr, Mechanicsburg, and Maurice Saltzman, Philadelphia.

Norbert D. Gannon, Erie, moved that a vote of thanks be extended the Hospital for the entertainment provided.

The meeting adjourned at 5:00 p. m.

There were approximately 100 members present.

Wednesday, Oct. 4, 1933

The second session of the Section on Pediatrics convened in the Junior Cotillion Room, Hotel Bellevue-Stratford, Philadelphia, at 2:00 p. m., and was called to order by Chairman Emily P. Bacon, Philadelphia.

Allen M. Kerr, Pittsburgh (representing the Pennsylvania Association of School Physicians), read a paper on "The Effect of Economic Crisis on the Nutrition of School Children."

Hubert W. Hetherington, Philadelphia (by invitation), read a paper on "Tuberculous Lesions in Children of School Age." (Lantern demonstration.)

F. Maurice McPhedran, Philadelphia (by invitation), read a paper on "The Nontuberculous Lesions of Children of School Age and the Infectious Pulmonary Lesions of Infancy." (Lantern demonstration.)

These papers were discussed by Royal H. McCutcheon, South Mountain.

Ralph M. Tyson, Philadelphia, read a case report on "Congenital Cyst of the Lung with Unusual Complications." (Lantern demonstration.)

Maud L. Menten, Pittsburgh (by invitation), read a paper on "Anemias of Infancy and Childhood Based on Morphology." (Lantern demonstration.)

Edmund R. McCluskey, Pittsburgh (by invitation), read a paper on "The Clinical Aspects of the Anemias of Childhood." (Lantern demonstration.)

In the absence of James K. Everhart, Pittsburgh, because of illness, Edmund R. McCluskey, Pittsburgh, read his paper on "Treatment of Anemias of Infancy and Childhood." (Lantern demonstration.)

Ethel C. Dunham (guest), New Haven, Conn., read a paper on "Conditions in Newborn Infants Associated with Cyanosis." (Lantern demonstration.)

This paper was discussed by Henry Perlman, Philadelphia; John M. Higgins, Sayre; and in closing, by Ethel C. Dunham.

The meeting adjourned at 4:45 p. m.

There were approximately 200 members present.

Thursday, Oct. 5, 1933

The third session of the Section on Pediatrics convened in the Junior Cotillion Room, Hotel Bellevue-Stratford, Philadelphia, at 1:30 p. m., and was called to order by the chairman, Emily P. Bacon, Philadelphia.

The Executive Committee—Norbert D. Gannon, Erie; James K. Everhart, Pittsburgh; and J. Gibson Logue, Williamsport, recommended the following officers for the ensuing year: Chairman, Herbert E. Hall, Uniontown; Secretary, Francis T. O'Donnell, Wilkes-Barre. Upon motion, duly seconded, Drs. Hall and O'Donnell were unanimously elected.

Dr. Gannon announced that the following resolution was being presented as the opening wedge of a program

to be developed through the coming year and presented to the Society at next year's meeting:

"The Executive Committee of the Pediatric Section of The Medical Society of the State of Pennsylvania recommends that the Section sponsor an educational movement in pediatrics, and that it request the Board of Trustees of the State Society to appoint a Committee on Pediatric Education which shall work in conjunction with existing State Society Committees."

Upon motion duly seconded and carried, this resolution was adopted, to be presented to the Board of Trustees with report of favorable action by the Section on Pediatrics.

DR. GANNON: In the death of Daniel E. Berney, of Scranton, the Secretary of this Section, we as a Section, as well as the profession as a whole, have lost a dear friend. At a meeting of the Executive Committee the following resolutions were drawn:

"WHEREAS, It has been the will of the Almighty to remove from our midst our late member and secretary, Daniel E. Berney; and

"WHEREAS, The intimate relations held by the deceased with the Pediatric Section render it proper that we should place on record our appreciation of his services as secretary and his merits as a pediatrician; therefore, be it

"Resolved, By the Pediatric Section of The Medical Society of the State of Pennsylvania that in the death of Dr. Daniel E. Berney this Section loses a member who was active and zealous in his work; ever ready to succor the needy and distressed; prompt to advance the interests of pediatrics; devoted to its welfare and high standing; one who was wise in pediatric counsel and successful in research of diseases of infancy and childhood; an honest and upright character, whose qualifications endeared him not only to members of this Section, but to his patients and fellow citizens; and be it further

"Resolved, That the Pediatric Section of The Medical Society of the State of Pennsylvania extend its heartfelt sympathy to the family; and be it further

"Resolved, That these resolutions be entered upon the minutes of the Pediatric Section of The Medical Society of the State of Pennsylvania and that a copy be sent to the family and to the PENNSYLVANIA MEDICAL JOURNAL.

(Signed) J. GIBSON LOGUE,
JAMES K. EVERHART,
NORBERT D. GANNON."

Upon motion of John F. Sinclair, Philadelphia, seconded by Henry Perlman, Philadelphia, this resolution was unanimously passed.

The Chairman spoke of the excellent work done by Dr. Berney in compiling the program for this year, which was so ably carried out by his successor, Dr. O'Donnell.

Herbert E. Hall, Uniontown, moved that the Section extend a vote of thanks to the Philadelphia Child Health Society for their assistance and cooperation in this program. Motion duly seconded and carried.

John M. Higgins, Sayre, read a Case Report on "Acute Lymphatic Aleukemic Leukemia."

DeForest P. Willard, Philadelphia, read a paper on "The Correction of Postural Defects in Children." (Lantern demonstration.)

Douglas Macfarlan, Philadelphia, read a paper on "Salvaging the Hard of Hearing Child." In connection with this paper Dr. Macfarlan presented an 11-year-old child.

H. Maxwell Langdon, Philadelphia, read a paper on "The Treatment of Convergent Strabismus with Special Consideration of the Possible Loss of Vision."

The Chairman, in extending thanks to these three essayists, said that the Section was fortunate in having the opportunity to hear men who know so thoroughly how the time element enters into the correction of these conditions, and inasmuch as pediatricians usually have the opportunity to see these children early, it behooves them to enlist the cooperation of the orthopedist, the otologist, and the ophthalmologist.

In introducing the guest speaker, John D. Lyttle, New York, the Chairman said that no doubt all the members of the Section have read some of his contributions to pediatric literature. His work as clinical professor of diseases of children at the College of Physicians and Surgeons has been of exceptionally broad scope, and the Section is privileged in hearing of what he has done.

John D. Lyttle, New York City, then read a paper on "Rational Treatment of Acute Nephritis in Children." (Lantern demonstration.)

This paper was discussed by Percival Nicholson, Ardmore; R. F. Richie, Pittsburgh; and in closing by John D. Lyttle.

The Section adjourned at 4:20 p. m.

The attendance was approximately 125.

EMILY P. BACON, *Chairman*,
FRANCIS T. O'DONNELL, *Secretary*.

Total members registered in Section on Pediatrics—148.

Members Registered in Section on Pediatrics

* ALLEGHENY COUNTY MEDICAL SOCIETY.—H. R. Goldstein, A. M. Kerr, H. T. Price.

BEAVER COUNTY MEDICAL SOCIETY.—G. B. Rush, Aliquippa.

BERKS COUNTY MEDICAL SOCIETY.—H. F. Kotzen, Reading.

BLAIR COUNTY MEDICAL SOCIETY.—E. W. Stitzel, Altoona.

BRADFORD COUNTY MEDICAL SOCIETY.—J. M. Higgins, R. L. Sledge, Sayre.

BUCKS COUNTY MEDICAL SOCIETY.—M. E. Lehman, Bristol; W. H. Tice; Quakertown.

CAMBRIA COUNTY MEDICAL SOCIETY.—A. M. Bergstein, Gallitzin.

CARBON COUNTY MEDICAL SOCIETY.—R. P. Batchelor, Palmerton.

CHESTER COUNTY MEDICAL SOCIETY.—R. T. Devcreux, West Chester; Michael Margolies, Coatesville.

CLEARFIELD COUNTY MEDICAL SOCIETY.—J. M. Quigley, Clearfield; R. L. Williams, Houtzdale.

COLUMBIA COUNTY MEDICAL SOCIETY.—E. A. Glenn, Berwick.

CUMBERLAND COUNTY MEDICAL SOCIETY.—R. R. Spahr, Mechanicsburg.

DAUPHIN COUNTY MEDICAL SOCIETY.—H. R. Douglas, M. R. Noble, Harrisburg; J. R. Plank, Steelton.

DELAWARE COUNTY MEDICAL SOCIETY.—J. B. Klopp, R. B. Loughhead, Chester; Alla Nekrassova, Lansdowne; Katharine Ulrich, Chester; W. E. Wentz, Jr., Media; E. A. Whitney, Elwyn.

* Where no address is given, Pittsburgh is indicated.

ERIE COUNTY MEDICAL SOCIETY.—N. D. Gannon, Erie.

FAYETTE COUNTY MEDICAL SOCIETY.—H. E. Hall, J. D. Sturgeon, Jr., Uniontown.

LAKEWATNA COUNTY MEDICAL SOCIETY.—R. N. Mackey, Clarks Summit.

LANCASTER COUNTY MEDICAL SOCIETY.—F. S. Chambers, Elizabethtown; D. W. Draper, Lancaster; J. S. Kendig, Salunga; S. N. Park, West Grove; E. K. Smith, Lancaster.

LEBANON COUNTY MEDICAL SOCIETY.—J. DeW. Kerr, Lebanon.

LEHIGH COUNTY MEDICAL SOCIETY.—F. R. Bausch, J. R. Heller, Allentown; W. J. Lowright, Center Valley; T. H. Weaver, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—E. U. Buckman, E. L. Meyers, F. T. O'Donnell, Wilkes-Barre.

LYCOMING COUNTY MEDICAL SOCIETY.—J. G. Logue, Williamsport.

McKEAN COUNTY MEDICAL SOCIETY.—P. S. Robbins, Bradford.

MONTGOMERY COUNTY MEDICAL SOCIETY.—H. A. Bostock, Norristown; R. S. Heffner, Pottstown; M. L. C. Gloeckner, Conshohocken; P. J. Lukens, Ambler; E. S. Myers, Jeffersonville; Percival Nicholson, Ardmore; D. S. Polk, Rosemont; K. B. Vanderbilt, Huntingdon Valley; J. K. W. Wood, Willow Grove.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—T. J. Butler, Bethlehem; H. C. Fisler, Easton; H. O. Rohrback, Bethlehem.

** PHILADELPHIA COUNTY MEDICAL SOCIETY.—Rachel Ash, G. H. Atkins, E. D. Atlee, E. P. Bacon, C. R. Barr, Oak Lane; E. L. Bauer, Israel Binder, L. F. Bender, Julius Blechschmidt, Randolph Bloom, J. E. Bowman, W. N. Bradley, J. P. Burns, Aaron Capper, H. C. Carpenter, P. B. Cassidy, Dorothy Child, J. F. Coppelino, Jean Crump, A. M. Dannenberg, J. D. Donnelly, Bala-Cynwyd; A. H. B. Drake, Frankford; C. A. Fife, Marie Finkelstein, Philip Fiscella, S. M. Fish, Peter Gannone, E. E. Graham, W. R. Gilmore, Samuel Goldberg, H. W. Goos, Jean Gowing, J. P. C. Griffith, E. W. Grim, S. McC. Hamill, Alfred Hand, H. L. Hartley, M. B. Herman, J. W. Holmes, J. A. Jones, J. P. Keating, Virginia Lane, F. H. Leavitt, Theodore LeBoutillier, Harry Lowenburg, P. F. Lucchesi, D. F. Lyle, J. M. Lyon, Ardmore; J. H. McKee, F. Q. McQuaide, N. M. Macneill, C. P. Major, R. J. Melman, Theodore Melnick, I. S. Meyerhoff, H. B. Mills, R. F. Minton, Ardmore; I. P. Morris, Merion; I. J. Muldower, M. J. Nash, R. V. Nicholas, J. F. O'Neill, H. H. Perlman, G. E. Pratt, S. X. Radbill, B. B. Rittenberg, J. A. Ritter, B. F. Royer, Samuel Rubin, R. S. Rubin, Eugene Rush, M. P. Ryan, E. D. Sarkis, J. A. Sherman, J. F. Sinclair, H. S. Snyderman, K. M. Starkey, Samuel Steiner, C. N. Sturtevant, J. R. Tatum, E. S. Thorpe, Jr., J. H. Toland, E. W. Tully, R. M. Tyson, A. D. Waltz, Drexel Hill; R. H. Weaver, T. S. Wilder.

WYOMING COUNTY MEDICAL SOCIETY.—K. M. Taylor, Meshoppen.

YORK COUNTY MEDICAL SOCIETY.—C. G. Gray, Hanover; H. D. Smyser, York.

MINUTES OF THE SECTION ON DERMATOLOGY

Wednesday, Oct. 4, 1933

The Section on Dermatology met in the Green Room of the Bellevue-Stratford Hotel, Philadelphia, on Wednesday, Oct. 4, 1933, and was called to order by Chairman Stanley Crawford, of Pittsburgh, at 2:00 p. m.

There were 74 present at the meeting.

During the first period from 2:00 to 2:55 p. m., the following papers were read: "Keratoderma Blennorrhagicum," by Bernhard A. Goldmann, Pittsburgh; "Pruritus: Considerations on Its Pathogenesis," by Joseph V. Klauder, Philadelphia; "Treatment of Epithelioma of the Lip by Electrocoagulation and Irradiation," by George E. Pfahler and Jacob H. Vastine, Philadelphia.

These papers were discussed by Donald M. Pillsbury, John H. Stokes, Ralph H. Spangler, and Frank C. Knowles, Philadelphia; Frederick M. Jacob, Pittsburgh; and Joseph V. Klauder, Philadelphia.

In the second period from 3:00 to 3:55 p. m., Fred Wise and Marion B. Sulzberger (guests), New York City, presented a paper entitled "Eruptions from Drugs and from External Irritants: Symptoms and Pathogenesis," which was discussed by Frank C. Knowles, Edward F. Corson, and John H. Stokes, Philadelphia; Max Levin, Harrisburg; Donald M. Pillsbury and Joseph V. Klauder, Philadelphia; and Marion B. Sulzberger.

In the third period from 4:00 to 4:55 p. m., the following papers were read: "Pemphigus," by Lawrence G. Beinhauer, Pittsburgh; "Purpura Hemorrhagica: Discussion of Certain Factors Instrumental in Its Production," by Harold W. Jones, Leandro M. Tocantins, and Edward F. Corson, Philadelphia. In the absence of Francis P. Kenney, his paper on "Late Congenital Syphilis" was not read.

These two papers were discussed by Sigmund S. Greenbaum, Philadelphia, in the absence of Lester Hollander; Harold W. Jones, Philadelphia; Marion B. Sulzberger, New York City; Lawrence G. Beinhauer, Pittsburgh; Edgar F. Corson and Abram Strauss, Philadelphia.

The scientific session was followed by a short business session. The Executive Committee reported nominations as follows: Chairman, Herbert J. Smith, Philadelphia; Secretary, Robert L. Gilman, Philadelphia. The Chairman called for nominations from the floor, but none were forthcoming and a motion that the nominations be closed was unanimously carried. Drs. Smith and Gilman were declared Chairman and Secretary, respectively, for the ensuing year.

The meeting adjourned at 5:15 p. m.

STANLEY CRAWFORD, *Chairman*,
ROBERT L. GILMAN, *Secretary*.

Total members registered in Section on Dermatology—44.

Members Registered in Section on Dermatology

* ALLEGHENY COUNTY MEDICAL SOCIETY.—L. G. Beinhauer, Stanley Crawford, B. A. Goldmann, F. M. Jacob.

BERKS COUNTY MEDICAL SOCIETY.—Thomas Butterworth, D. S. Grim, E. G. Meter, Reading.

** Where no address is given, Philadelphia is indicated.

* Where no address is given, Pittsburgh is indicated.

CAMBRIA COUNTY MEDICAL SOCIETY.—J. W. Barr, Johnstown.

CHESTER COUNTY MEDICAL SOCIETY.—G. E. Dietrich, Coatesville.

DAUPHIN COUNTY MEDICAL SOCIETY.—P. A. Deckard, Harrisburg.

GREENE COUNTY MEDICAL SOCIETY.—T. N. Millikin, Waynesburg.

LACKAWANNA COUNTY MEDICAL SOCIETY.—W. D. Whitehead, Scranton.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—E. R. Beidelman, Bethlehem.

**** PHILADELPHIA COUNTY MEDICAL SOCIETY.**—Herman Beerman, Morris Cornfeld, E. F. Corson, P. H. Drant, E. B. Finck, Reuben Friedman, V. C. Garner, R. W. Gilman, Louis Goldstein, Charles Goss, S. S. Greenbaum, J. P. Guequierre, Leon Herman, Rose Hirschler, B. L. Kahn, J. V. Klauder, F. C. Knowles, E. T. Litt, R. V. Moss, H. G. Munson, G. E. Pfahler, D. M. Pillsbury, Marie Severac, D. C. Smelzer, H. J. Smith, Nathan Steinberg, J. H. Stokes, J. L. Strousse, F. D. Weidman, Maurice Weisblum.

WAYNE-PIKE COUNTY MEDICAL SOCIETY.—S. A. Bang, South Canaan.

MINUTES OF SECTION ON UROLOGY

Wednesday, Oct. 4, 1933

The Section on Urology convened in the Red Room of the Bellevue-Stratford Hotel, Philadelphia, at 2 p. m., and was called to order by Chairman Thomas C. Stellwagen.

Francis R. Hagner of Washington, D. C., guest speaker, opened the session with the presentation of a paper entitled "Sterility in the Male," with lantern demonstration. Discussion by William H. MacKinney, Philadelphia.

A paper on "The Diagnosis and Treatment of Sterility in Women" was presented by Brooke M. Anspach. Dr. Anspach's paper was discussed by Franklin L. Payne, Philadelphia.

James F. McCahey, Philadelphia, read a paper on "Hypogonadism in the Male," with lantern demonstration. This paper was discussed by George R. Bancroft, Philadelphia.

The final paper of the afternoon, entitled "Endocrine Dysfunction in Male Sexual Disorders," was presented by Willard H. Kinney. This paper was discussed by Alexander Randall and Michael A. Burns, Philadelphia.

Thursday, Oct. 5, 1933

On Thursday, Oct. 5, at 12:30 p. m., the Philadelphia branch of the American Urological Association was host at a luncheon to the visiting urologists.

Following this the second session of the Section met at 2 p. m. Chairman Stellwagen, owing to the absence of the Executive Committee, appointed a committee, consisting of Stacy M. Hankey, Pittsburgh; Joseph C. Birdsall, Philadelphia; and Carlyle B. Haines, Sayre,

to place in nomination officers for 1934. The report of the committee was as follows: Chairman, Willard H. Kinney, Philadelphia; Secretary, David P. McCune, McKeesport; Executive Committee, Thomas C. Stellwagen, Philadelphia; Benjamin R. Almquest, Pittsburgh; Burton M. Hance, Easton. Upon motion regularly seconded and carried the recommendations of the Executive Committee were approved, and these officers were unanimously elected.

The first paper presented at the afternoon session was entitled: "Roentgen Diagnosis and Interpretation of Horseshoe Kidney," with lantern demonstration, by Leon Solis-Cohen and Samuel Bruck, Philadelphia. This paper was discussed by Philip S. Rosenblum, Philadelphia; George L. Armitage, Chester; and John B. Lownes, Philadelphia.

Joseph C. Birdsall, Philadelphia, presented a paper on "Symptomatology and Treatment of Movable Kidney," with lantern demonstration. Dr. Birdsall's paper was discussed by Francis G. Harrison, Philadelphia.

Carlyle B. Haines, Sayre, presented a paper on "Polycystic Disease of the Kidney," with lantern demonstration. This paper was discussed by John B. Lownes and William J. Ezickson, Philadelphia; George L. Armitage, Chester; and Willard H. Kinney, Philadelphia.

A paper on "Paroxysmal Hemoglobinuria with a Report of Two Interesting Cases" was presented by Herbert T. Kelly, Philadelphia. This paper was discussed by Dr. Ezickson, Philadelphia.

Theodore R. Fetter, Philadelphia, presented a paper on "Urogenital Tuberculosis," with lantern demonstration, followed by Carl J. Bucher, Philadelphia, on "The Laboratory Diagnosis of Renal Tuberculosis." These two papers were discussed by Thomas C. Stellwagen, Leon Herman, W. Hersey Thomas, and Joseph C. Birdsall, Philadelphia.

In conjunction with the presentation of these papers an exhibit of specimens, charts, and roentgenograms and a laboratory set-up for the diagnosis of urogenital tuberculosis were shown in the general Scientific Exhibit.

The session closed with a presentation of Case Reports by Leon Herman, Philadelphia: "Crossed Dystocia Kidney with Hydronephrosis of the Left Half, in a Boy Age 12"; Leon Herman, Henry Sangree, and Martin Costello, Philadelphia: "Nephropexy for Nephroptosis with Bilateral Reduplication of Ureters and Kidneys"; and Thomas C. Stellwagen, Philadelphia: "Bilateral Pyonephrosis Caused by Chronic Seminal Vesiculitis with Demonstration of Specimen."

Adjournment.

THOMAS C. STELLWAGEN, JR., *Chairman*,
WILLARD H. KINNEY, *Secretary*.

Total members registered in Section on Urology—79.

Members Registered in Section on Urology

*** ALLEGHENY COUNTY MEDICAL SOCIETY.**—B. R. Almquest, R. L. Anderson, S. M. Hankey, D. P. McCune, McKeesport; W. W. Wightman, A. A. Zangrilli.

BERKS COUNTY MEDICAL SOCIETY.—R. L. Reber, Reading.

BRADFORD COUNTY MEDICAL SOCIETY.—C. N. Haines, Sayre.

CENTER COUNTY MEDICAL SOCIETY.—W. A. Barrett, Bellefonte.

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***** Where no address is given, Pittsburgh is indicated.

CLEARFIELD COUNTY MEDICAL SOCIETY.—J. H. Woolridge, Clearfield.

DELAWARE COUNTY MEDICAL SOCIETY.—G. L. Armistage, W. A. Blair, K. J. Crothers, Chester.

LACKAWANNA COUNTY MEDICAL SOCIETY.—M. G. O'Brien, Scranton.

LANCASTER COUNTY MEDICAL SOCIETY.—Joseph Appleyard, Harry Pomerantz, Lancaster.

LUZERNE COUNTY MEDICAL SOCIETY.—F. P. Judge, Plains; J. B. Purcell, Wilkes-Barre.

LYCOMING COUNTY MEDICAL SOCIETY.—J. P. Harley, Edward Lyon, Williamsport.

MONTGOMERY COUNTY MEDICAL SOCIETY.—S. A. Miller, Norristown.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—R. A. Fisher, Easton; A. J. Maysels, Bethlehem.

**** PHILADELPHIA COUNTY MEDICAL SOCIETY.**—B. M. Anspach, Joseph Aspel, T. H. Atkinson, Leonard Averett, J. A. Baglivo, J. C. Birdsall, C. A. Blayney, A. E. Bothe, Robert Boyer, J. A. Broadfield, Samuel Bruck, Richard Campion, I. J. Carp, P. C. F. Castellani, A. E. Colcher, E. S. Cooke, Moses DeFord, M. B. Emanuel, W. J. Ezickson, T. R. Fetter, Samuel Forman, H. G. Fretz, L. B. Greene, W. H. Haines, B. H. Harris, F. G. Harrison, C. W. Herman, J. C. Keller, W. H. Kinney, P. R. Leberman, Harold Lipshutz, J. B. Lownes, J. F. McCahey, C. W. McConihlan, W. H. Mackinney, F. P. Massaniso, Silvio Miceli, L. F. Milliken, S. W. Moorhead, E. A. Mullen, G. J. Muellerschoen, Maurice Muschat, C. W. Ostrum, P. S. Pelouze, G. P. Pilling, Jr., H. S. Rambo, Germantown; Alexander Randall, P. S. Rosenblum, Henry Sangree, Leon Solis-Cohen, Oak Lane; T. C. Stellwagen, M. H. Sutley, W. H. Thomas, Harry Tulsky, J. K. Wagenseller, C. E. Wolf from.

Members Registered, Section not Designated

*** ALLEGHENY COUNTY MEDICAL SOCIETY.**—J. L. Gilmore, V. J. Grauten, G. W. Grier, T. B. McCullough, J. J. Wiseman, Mayview.

BLAIR COUNTY MEDICAL SOCIETY.—G. E. Boesinger, Altoona.

BUCKS COUNTY MEDICAL SOCIETY.—S. P. McIlhatten, Ivyland; A. F. Myers, Blooming Glen; L. S. Walton, Jenkintown.

CAMBRIA COUNTY MEDICAL SOCIETY.—P. E. Lavelle, Johnstown.

CHESTER COUNTY MEDICAL SOCIETY.—R. S. Phillips, Kennett Square, A. H. Pierce, S. H. Scott, Coatesville.

CLINTON COUNTY MEDICAL SOCIETY.—G. D. Mervine, Lock Haven.

DAUPHIN COUNTY MEDICAL SOCIETY.—W. T. Douglass, Max Levin, Harrisburg; E. S. Everhart, Lemoyne.

DELAWARE COUNTY MEDICAL SOCIETY.—H. W. Banks, Norwood; R. E. L. Gowan, Yeadon; J. R. T. Gray, Chester; W. W. Lattomus, Swarthmore.

JEFFERSON COUNTY MEDICAL SOCIETY.—W. M. McCormick, Falls Creek.

LACKAWANNA COUNTY MEDICAL SOCIETY.—F. T. Cavill, Jessup; V. T. Curtin, Scranton.

LANCASTER COUNTY MEDICAL SOCIETY.—J. P. Kennedy, Columbia; P. O. Snoko, G. W. Stoler, Lancaster, J. L. Winters, Blue Ball.

LEBANON COUNTY MEDICAL SOCIETY.—W. R. Brubaker, Annville; L. R. Light, Lebanon.

LEHIGH COUNTY MEDICAL SOCIETY.—W. J. Fetherolf, Steinsville; V. B. Haffner, R. F. Merkle, Vaughan Sprengle, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—E. F. Hanlon, Hazleton; P. A. McLaughlin, E. L. Meyers, Wilkes-Barre; B. C. Rumbel, Conyngham; A. V. Sloan, J. B. Tobias, Wilkes-Barre.

LYCOMING COUNTY MEDICAL SOCIETY.—William Devitt, Allenwood; C. H. Senn, Williamsport.

MONROE COUNTY MEDICAL SOCIETY.—W. E. Andrew, Stroudsburg.

MONTGOMERY COUNTY MEDICAL SOCIETY.—G. W. Bland, A. L. Dewees, Ardmore; A. R. Elliott, C. A. Laubach, Norristown; R. D. MacKinnon, Narberth; A. L. Ruth, Conshohocken; E. E. Seidler, H. E. Tompkins, Norristown; H. R. Warner, Kulpsville.

MONTGOMERY COUNTY MEDICAL SOCIETY.—G. B. M. Free, York.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—J. A. Fraunfelder, Nazareth; D. C. Richards, Easton; H. A. Rothrock, Jr., Bethlehem.

NORTHUMBERLAND COUNTY MEDICAL SOCIETY.—W. J. Jacoby, Mt. Carmel; C. A. Marsh, Selinsgrove.

PERRY COUNTY MEDICAL SOCIETY.—B. F. Beale, Duncannon.

**** PHILADELPHIA COUNTY MEDICAL SOCIETY.**—A. F. Allman, M. S. Bailey, Norristown; M. A. Bowyer, Israel Bram, Aaron Brav, C. R. Bridgett, A. P. Brubaker, A. S. Butz, E. A. Case, Lansdowne; E. F. Cicconi, A. J. Cohen, Stricker Coles, Bryn Mawr; M. P. Corcoran, E. C. Davis, A. S. Doyle, Bywood; Seneca Egbert, Wayne; E. H. Erney, E. V. Eymann, Henry Fisher, J. M. Frutcher, T. C. Fulton, D. W. Garber, E. J. Garvin, Jacob Gershon-Cohen, Philip Getson, W. H. Good, Benjamin Gruskin, G. C. Hanna, H. Z. Hibshman, B. A. Hughes, F. C. Hutton, K. A. Kasper, G. W. Knadler, H. M. Kuehner, H. A. Lacy, Edward Lodholz, C. A. Losada, Summit, N. J.; Joseph McFarland, Germantown; D. R. McCarroll, J. L. Mannasses, A. A. Martucci, Samuel Mazar, J. F. Mecluskey, J. B. Mencke, W. E. Miller, Colwyn; J. P. Mulrenan, P. H. Neese, W. W. Oaks, C. P. O'Boyle, W. N. Parkinson, G. H. Pearson, William Pepper, Melrose Park; M. F. Percival, H. M. Righter, W. J. Ritter, G. R. Rodgers, J. C. Rosen, J. M. Rosenthal, C. T. Russell, Jr., Maxwell Scarf, J. P. Schaeffer, J. J. Schoenig, Bernard Schwartz, P. S. Seabold, F. P. Shannon, S. G. Shepherd, Louis Spitz, E. M. Spoon, Oliver Stout, H. T. Stull, J. A. Turner, Benjamin Ulanski, J. H. Vastine, J. J. Waygood, H. P. Webb, E. H. Weiss, J. W. Welty, C. Y. White, B. P. Widmann, L. R. Wiley, Morris Winheld, J. C. Yaskin.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—W. G. Bowers, Schuylkill Haven; C. H. Knauer, Mahanoy City.

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Guest Physicians

John Alexander, Ann Arbor, Michigan; Ethel C. Dunham, New Haven, Connecticut; Francis R. Hagner, Washington, D. C.; George J. Heuer, New York City; Dean Lewis, Baltimore, Maryland; John D. Lytle, New York City; William S. McCann, Rochester, New York; William DeB MacNider, Chapel Hill, North Carolina; John J. Shea, Memphis, Tennessee; Mark J. Schoenberg, New York City; Marion B. Sulzberger, Fred Wise, New York City; Morris Fishbein, Chicago, Illinois.

Guests

Mr. H. E. Bishop, Sayre; Dr. C. D. Koch, Harrisburg; G. H. Meeker, Ph.D., Philadelphia; W. C. Decker, D.D.S., W. M. Fine, D.D.S., F. A. Fox, D.D.S., M. Hagopian, D.D.S., W. B. Lake, D.D.S., M. A. Langefer, D.D.S., Ambrose Hunsberger, Ph.G., J. C. Walton, Ph.G., Philadelphia.

Visitors

C. S. Abbott, Bristol; W. O. Abbott, Merion; H. N. Akesson, Philadelphia; C. E. Albrecht, Abington; H. S. Anders, J. C. Anderson, Philadelphia; J. Z. Appel, Lancaster; E. H. Balph, Philadelphia; J. L. Barthold, Norristown; A. A. Berenbaum, Harry Bernstein, J. C. Bird, Sarah Bishop, Carl Blotner, W. M. Boehm, L. L. Bower, R. E. Brant, Philadelphia; F. E. Brister, Ambler; J. M. Brister, D. D. Broselow, A. S. Browdie, Pittsburgh; C. E. Brown, Philadelphia; T. H. Bruce, Pittsburgh; E. M. Burke, Philadelphia; F. J. Burke, Bethlehem; J. J. Byrne, Philadelphia; A. L. Campbell, Hatboro; L. S. Caplan, T. D. Cash, W. E. Chamberlain, P. K. Champion, R. J. Chodoff, Barbara Churchill, E. R. Clark, Philadelphia; M. L. Clarke, Bryn Mawr; C. P. Cleaver, J. E. Coftus, B. N. E. Cohn, B. Cooper, Philadelphia; F. E. Cressman, West Chester; J. R. Criswell, C. D. Darling, J. B. Davidson, Jr., W. H. Deardorff, A. H. Dickinson, J. K. Durkin, J. J. D'Urso, E. H. Dyer, H. K. Elder, H. K. Ensworth, Morris Elkins, H. J. Epstein, S. S. Farago, J. V. Farrell, J. V. Flaig, J. S. Forrester, H. M. Friden, Herbert Freed, Samuel Friedenberg, Philadelphia; W. K. Galliagi, Chadds Ford; Morris Gallen, Edward Gartman, Philadelphia; F. B. Geibel, Elwyn; S. A. Goldberg, H. A. Goldfine, Leopold Goldstein, E. M. Gordon, Dudley Guilford, L. J. Hampton, M. K. Hanley, Philadelphia; A. S. Hanson, Boothwyn; Bernard Hark, Arthur Hartley, Philadelphia; R. M. Harvey, Media; W. S. Hastings, Elkins Park; H. Herman, Philadelphia; R. C. Holcomb, Upper Darby; T. R. Holland, R. I. Hood, Philadelphia; G. M. Irwin, Bridgeport; W. B. Jackson, Philadelphia; C. J. Jaquish, New Castle; W. A. Jeffers, Philadelphia; M. E. Katz, Allentown; S. Katz, James Kay, B. F. Kehler, H. C. Kersel, B. F. Kleimer, Philadelphia; J. T. Laferty, Norristown; M. B. Leath, Jr., D. W. Leik, S. Levine, E. B. Lewis, Aaron Lichten, Samuel Lieberman, M. A. Lindauer, J. B. Longshore, Philadelphia; H. B. Lowenbury, Chester; S. B. Luckey, Chester; E. B. McCluskey, Pittsburgh; S. F. Madonna, M. M. Malen, Nathan Manus, Philadelphia; Ralph Markley, Elizabethtown; J. K. Marks, M. A. Marks, R. W. Mays, W. F. Mengert, Philadelphia; H. A. Mengle, Wyncote; Theodore Meranze, T. L. Mercer, Philadelphia; M. R. Metzger, Stroudsburg; Jerome Miller, S. J. Morris, Philadelphia; A. A. Miner, Lansdowne; R. R. Minkin-Mikelberg, M. J. Murphy, Abraham Myers, R. W. MacCalmont, Jr., Philadelphia; A. E.

McLaughlin, Nanticoke; W. P. McKnight, Pittsburgh; H. P. MacNeal, Philadelphia; H. M. Neal, Upper Lehigh; W. S. Neff, Philadelphia; C. P. Noble, Radnor; N. M. Noble, Philadelphia; W. D. Nusbaum, Nanticoke; Jo Ono, L. H. Osmond, H. H. Pascher, Anderson Polk, J. G. Powell, L. N. Prince, R. C. Rasin, Philadelphia; E. E. Raymond, Pittsburgh; F. H. Reeder, Beatrice Rettinger, Virginia Rheuby, Philadelphia; R. F. Richie, Harrisburg; D. M. Rosman, G. S. Rost, A. R. Roy, S. J. Rugel, Meyer Sabel, M. E. Sala-Diaz, Philadelphia; C. L. Santee, Wapwallopen; J. M. Saltzberg, Philadelphia; S. L. Savidge, Abington; L. P. Savitz, M. T. Schmitter, Philadelphia; K. S. Scott, Abington; J. A. Seligman, C. W. Semisch, Bertram Shaffer, Joseph Shaiken, H. G. Sharp, M. S. Shapiro, H. M. Shearer, G. F. Sheppards, Philadelphia; J. S. Shershon, Malvern; N. P. Shumway, Merion; J. H. Smith, Swarthmore; R. P. Smith, N. M. Smolers, Philadelphia; C. H. Stone, Coatesville; E. J. Pelowet, Norristown; E. C. Thomas, Charles Tonik, Constana Volk, Philadelphia; E. S. Vollmer, Abington; E. C. Waln, Ambler; J. W. Ward, Byberry; J. F. Wasilewski, Kulpmont; E. L. Waugh, H. S. Weaver, Sidney Weiss, J. Weygand, G. H. Wilber, Philadelphia; B. D. Wilkins, Allentown; Mac Williams, L. M. Wing, J. S. F. Wong, W. W. Worthington, M. B. Wortman, H. B. Wright, N. A. Wyman, C. H. Yeatter, G. J. Youell, C. J. Zinn, Charles Cadwallader, U. S. Public Health Service, Philadelphia; Russell Thomas, U. S. Public Health Service, Lewisburg; J. H. Chambers, T. A. Fortescue, E. G. Hakansson, W. J. Fineberry, U. S. Naval Hospital, Philadelphia; J. C. Magee, U. S. Army; A. J. Ridland, U. S. Army, Ardsley; F. T. Woodbury, U. S. Army; R. A. Glenn, Oakland, California; Leon Lewis, Eldridge, California; F. B. Moor, Loma Linda, California; B. G. Pollack, Miami Beach Florida; B. M. Allen, L. W. Anderson, Wilmington Delaware; D. T. Davidson, Claymont, Delaware; H. B. Patton, Elmore, Delaware; A. J. Strikol, J. N. Niles, Wilmington, Delaware; T. S. Lee, M. M. Nicholson, Washington, D. C.; A. L. Mills, St. Petersburg, Florida; J. M. Carlisle, Atlanta, Georgia; C. H. Pritham, Greenville, Maine; W. I. Lillie, Rochester, Minnesota; W. M. Dowlin, Claremont, New Hampshire; K. B. Barb, Camden, N. J.; Samuel Barbash, Atlantic City, N. J.; H. W. Bauer, Palmyra, N. J.; Enoch Blackwell, Trenton, N. J.; Maurice Chesler, D. P. Conway, Atlantic City, N. J.; H. M. Fooder, Williamstown, N. J.; Henry Goldstein, Merton, N. J.; H. I. Goldstein, Camden, N. J.; E. Guion, Northfield, N. J.; B. D. Harley, H. L. Harley, Atlantic City, N. J.; R. K. Hollinshed, Westville, N. J.; L. B. Hollingshead, Princeton, N. J.; W. J. Houck, Newark, N. J.; E. G. Kimmell, Camden, N. J.; E. R. Hunter, Delano, N. J.; M. E. Long, Asbury Park, N. J.; Alexander MacAlister, Camden, N. J.; E. L. Martin, Princeton, N. J.; J. F. Massey, Atlantic City, N. J.; J. M. Mras, Trenton, N. J.; H. F. Palm, Camden, N. J.; H. O. Reik, S. L. Salasin, Atlantic City, N. J.; S. C. Rosen, Camden, N. J.; Louis Schneider, Newark, N. J.; H. L. Sinexon, Paulsboro, N. J.; M. E. Stern, Newark, N. J.; C. W. Thomas, Woodstown, N. J.; C. I. Ulmer, Gibbstown, N. J.; H. F. Upham, Asbury Park, N. J.; F. P. Wainwright, Mulford Wainwright, Bridgeton, N. J.; F. B. Zandt, Hamilton Square, N. J.; W. S. Collens, Brooklyn, N. Y.; Paul Howard, New York, N. Y.; J. R. Andrews, Kent, Ohio; L. A. Campbell, Steubenville, Ohio; R. A. Phillips, Elk Point, South Dakota; Maurice Gordon, Salt Lake City, Utah; A. A. Kammer, Belleville, Wisconsin.

Registration of Members by Counties

Adams	3	Dauphin	44
Allegheny	72	Delaware	57
Armstrong	3	Elk	3
Beaver	3	Erie	9
Bedford	3	Fayette	11
Berks	52	Franklin	8
Blair	15	Greene	2
Bradford	12	Huntingdon	5
Bucks	19	Indiana	1
Butler	0	Jefferson	4
Cambria	17	Juniata	1
Carbon	4	Lackawanna	29
Center	5	Lancaster	47
Chester	30	Lawrence	5
Clarion	4	Lebanon	6
Clearfield	10	Lehigh	36
Clinton	2	Luzerne	42
Columbia	4	Lycoming	22
Crawford	3	McKean	2
Cumberland	3	Mercer	2

Mifflin	5	Susquehanna	1
Monroe	3	Tioga	2
Montgomery	75	Venango	4
Montour	10	Warren	4
Northampton	46	Washington	6
Northumberland ..	12	Wayne-Pike	3
Perry	4	Westmoreland	11
Philadelphia	1209	Wyoming	4
Potter	1	York	21
Schuylkill	22		
Somerset	3	Total	2046

Summary of Registered Attendance

Members	2046
Guest physicians, including interns	271
Total physicians	2317
Woman's Auxiliary	435
Grand total registered attendance	2752

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

TWENTY-EIGHTH ANNUAL SECRETARIES' CONFERENCE

The 28th Annual Secretaries' Conference will be held this year in Harrisburg, on Tuesday, Dec. 12. The change in date from that announced in the October JOURNAL is due to the fact that our Board of Trustees have changed the time of their regular meeting.

A number of problems of paramount importance will be discussed at this Conference, and in order that these discussions may be of more or less specific value to groups heretofore attending, two programs have been prepared, one for morning and another for afternoon.

The morning program will be prepared in the interest of county society secretaries and editors, and this session will convene in the Penn-Harris Hotel, in Harrisburg, at 10:30 o'clock, to discuss the following subjects: "The Cost of Nonmembership"; "Graduate Medical Education for Our Smaller County Societies."

Representatives of County Society Public Relations Committees will be invited to join the Conference at luncheon, which will be served to all in attendance, at 12:45 p. m., in the same hotel. At this session problems of economic interest will be discussed, such as "Medical Relations Under Workmen's Compensation"; "Medical Relief Service to the Indigent and To Those on Emergency Relief."

Needless to state, officers of the State Society will be in attendance upon both sessions.

NOTES FROM OUR 1933 SESSION

From the many and varied sources of comment—State and County Medical Society officers, guest speakers from other State Societies, county medical society Bulletins recently published—coming to the attention of the writer, an interested observer for many years, it is conceded that the 1933 session of our State Society, from most angles, exceeded in accrued values all previous sessions. This observation, depriving no recent session of any credit, but reflects the results of the efforts of each succeeding year's group of officers and committeemen responsible for the success of the session. This being the case, it is but natural that having met this year in Philadelphia the records were broken. That the Philadelphia County Medical Society is experienced in providing entertainment for large groups of their fellow practitioners is not only a matter of history in the annals of the American Medical Association, but is recorded in the fact that they have entertained our State Society in annual session on 23 occasions during the 85 years of its existence.

The session was marked throughout by a spirit of cordiality, enthusiastic leadership, and determination to please that always distinguish the hospitality of the experienced host. From the moment of the entrance of the first visiting member into the lobby of the headquarters' hotel to the time of departure of the last happy survivor of four full days' activities, genial repre-

sentatives of the host society, flitting in and out of their own booth—the only one on the street floor—extended a cordial welcome and were most helpful in directing members and guests to the State Society's registration desk, the source of detailed information regarding the session.

Dr. Charles Falkowsky, Jr., becomes the nineteenth living former President of our Society. To their everlasting credit and to the honor of our Society, the entire nineteen were registered in attendance at Philadelphia. Dr. William L. Estes, of Bethlehem, President in 1907, is Dean of the group.

The Woman's Auxiliary to the State Society, during the Session, repaid to our treasury \$500.00 advanced at the time of the recent bank holiday.

Members should read with especial care that portion of the minutes of the House of Delegates recording discussion of the Society's Benevolence Fund. The Benevolence Committee will have available for relief purposes this year not only all earnings accruing from the fund, but also \$2546.50 contributed to benevolences last year by the various Woman's Auxiliaries. The total amount thus available will approximate \$8000.00, which is \$2000.00 more than was required for relief last year.

The dinner given by the Philadelphia County Medical Society to the officers of the State Society, on Monday night, in the county society's own building, was beautifully appointed, and was followed by an interestingly illustrated talk on a clay tablet in the archaeological museum of the University of Pennsylvania depicting the seal of an ancient Babylonian physician, dating probably from 3100 B. C.

Like this year's host to the State Society's Annual Session, our 1934 host, the Luzerne County Medical Society, owns—in the City of Wilkes-Barre—its own home, housing the society's library, and reading, committee, and meeting rooms. We can only repeat that which we have previously stated about County Societies which have thus arrived: "All the virtues, such as stability and community standing and influence, which ordinarily accompany the possession of one's own *lares* and *penates*, have been strikingly manifest by county medical societies owning their own buildings."

The smokeless "smoker," or dinner, served Tuesday night to more than a thousand members, was further characterized this year by the segregation of several large alumni groups and by a subsequent program of chamber music—instrumental and vocal.

The exhibit of our Public Relations Committee at the Philadelphia session, featured by a county map of the State of Pennsylvania, 5 by 9 feet, depicting 44 counties in which 83 newspapers were, on October 1, publishing daily or weekly the health releases (enlarged facsimiles of which were also exhibited) attracted the attention of many members of our Society unfamiliar with the existence of the news service, who were frequently also greatly surprised to note that no newspaper in their particular county was publishing same. As a result of the contacts developed at the booth, the news release is now being published daily or weekly in 97 newspapers in 49 counties. It is believed that additional county society committees on public relations, being stimulated to activity by questioning, will soon result in the publication of our material in at least one newspaper in every Pennsylvania county. It is to be hoped that these breezy, practical health comments, which do not encourage attempts at self-diagnosis or give therapeutic advice, will soon be published in the name of our various county societies in 200 Pennsylvania newspapers.

The Public Meeting, held as usual on Wednesday evening preceding the President's reception, was at Philadelphia, a scintillating success, with a program ideally prepared and presented to win the sympathy of the laymen present to the sickness prevention plans and to the proper community relations of the practicing physicians. Would that every county medical society might have representative members, equipped with the personality, vocabulary, and experience to wisely design and attractively introduce programs to an audience, as do Cornell, Odenatt, Weidman, Wolferth, and Yeager, of Philadelphia.

The Motion Picture Theater of this year's session, situated within the confines of the Scientific Exhibit—we refer to confines because a handsome Philadelphia policeman excluded from the Scientific Exhibit all who did not wear the registration button—whose destiny was presided over by an attractive Philadelphia nurse in full uniform, was encouragingly popular. The average attendance upon the 12 pictures

shown on Thursday was 49 per picture. The attendance upon the various pictures shown throughout the three days averaged 39, ranging from 5 to 65. The most popular pictures were "Experimental Studies in Blood Coagulation," "Plastic Surgery," "Breech Extraction," and a group of cardiocirculatory pictures.

The luncheon on Oct. 4, given in honor of President Dean Lewis of the American Medical Association, and presided over by President Donald Guthrie, was a delightful affair attended by Dr. George E. de Schweinitz, president of the American Medical Association in 1922, and more than two score officers and past presidents of our State Society, representatives of the Philadelphia County Society, and guest speakers on the Scientific Program.

The welcoming address of the Honorable J. Hampton Moore, Mayor of Philadelphia, to be found in this issue, in the minutes of the opening general session, contains much food for thought for taxpayers everywhere, as well as physicians and economists. At our 1918 session, Mr. Moore also welcomed us as Mayor of Philadelphia, sharing the program with — among others—Reinald Werrenrath, a famous baritone of that day.

It is to be regretted that we again failed in our efforts to procure reduced fare under the Certificate Plan for those of our members who traveled by rail to our annual session. Although more than 800 of the 2046 members who registered live outside of Philadelphia, only 73 certificates were deposited at the registration desk. The reason must lie in the fact that many members, traveling by rail, coming but a short distance, consider the saving too slight and fail to ask for the certificate when purchasing their "going" ticket. It should be remembered that those who travel greater distances, with a possible saving of \$10 or more involved, must depend for success of the plan upon those traveling shorter distances, where the saving seems inconsiderable.

CHILD HEALTH RECOVERY CONFERENCE

United States Department of Labor
Children's Bureau

WASHINGTON, D. C., OCTOBER 6, 1933

This conference was attended by probably 150 interested workers and observers, including representatives of the U. S. Public Health Service,

the American Medical Association, 7 State Medical Societies, State Health Departments, and representatives of national as well as smaller social, welfare, and nursing groups.

From our own Society, the Secretary noted present Drs. Theodore B. Appel, Samuel McC. Hamill, Frank G. Hartman, and Mary Riggs Noble.

After opening remarks by Secretary of Labor Frances Perkins and the wife of the President of the United States, Miss Grace Abbott of the Children's Bureau, acting as Chairman, introduced "Julius Hess, M.D., representing the Board of Trustees of the A. M. A.," who, as Chairman of the Executive Committee, presented the program for the day's conference.

Miss Abbott then introduced President-elect Walter L. Bierring, of the A. M. A., who spoke briefly. She then introduced Dr. Elizabeth M. Gardiner, of New York State, who presented briefly her proposed plans for meeting in New York State the problem of the day's conference, namely, Child Health Recovery. She next introduced Dr. Samuel McC. Hamill, who presented the plan actually developed since last March in Pennsylvania. Next Dr. F. J. Quigley, representing the New Jersey State Medical Society, described the plan already at work in New Jersey.

Throughout the conference there occurred flashes of the natural controversy that arise in the consideration of health problems between the socially-minded Children's Bureau of the Department of Labor, and the scientifically-grounded, practically administered U. S. Public Health Service.

Pennsylvania's contribution to the conference was outstanding. Members will anticipate, without comment, the impression made by Dr. Hamill's report of groups at work and things accomplished, and the display of charts arranged by Dr. Mary Riggs Noble of our State Health Department, which included the findings of the Emergency Child Committee in Fayette County—the report and the charts attracting notable attention.

While little apparently came from the conference, such men as Dr. Hess and Dr. Hamill of its Executive Committee may salvage and plan the nation-wide distribution of considerable of the constructive material presented. Our State Society may well be proud of the tremendous work and attainments of Pennsylvania's numerous child health committees developed under the guidance of our distinguished fellow member, Dr. Hamill.

RULES AND REGULATIONS NO. 7*

Governing Medical Care Provided in the Home to Recipients of Unemployment Relief

Introduction

The conservation and maintenance of the public health is a primary function of our Government. In this emergency, the ingenuity of Federal, State, and local relief officials is being taxed to conserve available public funds and, at the same time, to give adequate relief to those in need. To assist State and local relief administrations in the achievement of these aims, with regard to medical care, two steps have been taken: First, to define the general scope of authorized medical care, where the expenditure of Federal Emergency Relief Funds is involved; and second, to establish general regulations governing the provision of such medical care to recipients of unemployment relief.

General Scope

(Extracted from rules Nos. 1 and 3, previously established.)

Promulgated on June 23, 1933, rule No. 1, section (b), stated:

Grants made to the States from Federal funds under the Federal Emergency Relief Act of 1933 may be used for the payment of medical attendance and medical supplies for those families that are receiving relief.

The permission granted under this section (b) was more sharply defined in the same rule, in section (d), which stated in part:

These funds may not be used for the payment of hospital bills....., or for providing general institutional care. These necessary services to the destitute should be made available through State or local funds.

In the section on "Direct Relief" of rule No. 3, promulgated on July 15, 1933, medical care in the home was listed as item 6 in the list of the types of relief that may be provided to relief cases, *viz*:

"6. Orders for medicine, medical supplies and/or medical attendance to be furnished in the home." Under the same rule, adequacy of such relief is made "an obligation on the State Emergency Relief Administration and on all the political subdivisions of the States administering relief....."

The scope of medical care as above defined shall be construed to include: Bedside nursing care, as an adjunct to medical care; and emergency dental service for those families that are receiving relief.

Regulations Governing Medical Care Provided in the Home to Recipients of Unemployment Relief

The following regulations, governing the provision in the home of medical care (includes "medicine, medical supplies and/or medical attendance") to persons eligible for unemployment relief, are hereby established.

1. *Policy*.—A uniform policy with regard to the provision of medical, nursing, and dental care for indigent persons in their homes, shall be made the basis of an agreement between the relief administration and the organized medical, nursing, and dental professions, State and/or local. The essence of such a policy should be:

(a) An agreement by the relief administration to recognize within legal and economic limitations, the traditional family and family-physician relationship in the authorization of medical care for indigent persons in their homes; the traditional physician-nurse relation-

ship in the authorization of bedside nursing care; the traditional dentist-patient relationship in the authorization of emergency dental care; and

(b) An agreement by the physician, nurse (or nursing organization), and dentist to furnish the same type of service to an indigent person as would be rendered to a private patient, but that such authorized service shall be a minimum consistent with good professional judgment, and shall be charged for at an agreed rate which makes due allowance for the conservation of relief funds.

The common aim should be the provision of good medical service at a low cost—to the mutual benefit of indigent patient, physician, nurse, dentist, and taxpayer.

The policy adopted shall be to augment and render more adequate facilities already existing in the community for the provision of medical care by the medical, nursing, and dental professions to indigent persons. It shall imply continuance in the use of hospitals, clinics, and medical, dental, and nursing services already established in the community and paid for, in whole or in part, from local and/or State funds in accordance with local statutes or charter provisions. Federal Emergency Relief Funds shall not be used in lieu of local and/or State funds to pay for these established services.

The phrase "in their homes" shall be interpreted to include office service for ambulatory patients, with the understanding that such office service shall not supplant the services of clinics already provided in the community.

2. *Procedure*.—A uniform procedure for authorization of medical, nursing, and dental care in the home shall be established by each State and/or local emergency relief administration. This procedure shall not be in conflict with the following requirements:

(a) *Written order*.—All authorizations for medical, nursing, and dental care shall be issued in writing by the local relief officer, on the regular relief order blank, prior to giving such care; except that telephone authorization shall immediately be followed by such a written order; and provided that authorizations for bedside nursing care shall be based on a recommendation by the attending physician, in cases where a physician is in attendance, who shall certify to the need for nursing service as part of the medical care. Authorizations for medicine and medical supplies shall also be issued in writing and, in general, such authorizations shall not be issued except upon written request of the physician authorized to attend the person for whose use they are desired.

(b) *Acute illness*.—Authorizations for medical care for acute illness shall be limited to a definite period and a maximum expenditure or number of visits (*i.e.*, not more than 2 weeks or 10 visits), according to the standard agreement made between relief officials and physicians under regulation 1. Medical care in excess of this period shall not be authorized until after a reinvestigation of the case in the home by the local emergency relief administration.

(c) *Chronic illness*.—Medical care for prolonged illnesses, such as chronic asthma, chronic heart disease, chronic rheumatism, diabetes, *etc.*, shall be authorized on an individual basis, and, in general, visits shall be limited in frequency (*i.e.*, not more than 1 visit per week for a period not exceeding 2 or 3 months) by agreement. Nursing care for such chronic illnesses shall, in general, be authorized in accordance with the need for such care as indicated by the attending physician. If necessary, more frequent visits, by the physician or nurse, for an acute attack occurring in the course of a chronic illness, may be authorized. Care

* Reprint of Bulletin No. 7. Federal Emergency Relief Administration, Washington, D. C.

for chronic illness authorized under this section shall supplement and not supersede existing community services, such as visiting nursing service or institutional care.

(d) *Obstetrical care*.—Authorization for obstetrical service in the home shall include an agreed minimum number of prenatal visits (where possible), delivery in the home, and necessary postnatal care. Due caution shall be exercised that this authorization for delivery in the home does not involve undue risk to the patient for whom hospital care may be imperative. The physician authorized to attend the confinement in the home shall be responsible for certifying to the local relief administration that, in his professional judgment, delivery in the home will be safe.

(e) *Special services*.—Medical and nursing services not covered above shall be authorized on an individual basis, subject to the general provisions of the agreement made under regulation 1. Special dental service shall be subject to a similar procedure.

Medical care shall not ordinarily be authorized by relief administrations for conditions that do not cause acute suffering, interfere with earning capacity, endanger life, or threaten some permanent new handicap that is preventable when medical care is sought.

(f) *Accessory services*.—Emergency dental care and bedside nursing service, for indigent persons in their homes, may be authorized subject to the existing general policy of the State and/or local relief administration.

(1) *Dental care* shall, in general, be restricted to emergency extractions and repairs. Dentists and dental care shall be subject to the same general restrictions indicated for physicians under regulation 1.

(2) *Bedside nursing care*, where authorized, shall conform to a procedure comparable to the one outlined for physicians above, and shall be provided under an agreement made between relief administrations and nursing organizations, State and/or local, under the same principles suggested for physicians under regulation 1. Standards of accredited local nursing organizations shall be followed by nurses giving authorized bedside nursing care to indigent persons in their homes. Such authorized bedside nursing care shall not supersede or supplant existing local official services giving such care under the provisions of local law.

(g) *Fee schedule*.—The agreement between the State and/or local relief administration and the organized professional groups of physicians, nurses, and dentists, State and/or local, established under regulation 1, shall include a fee schedule covering the basic and special services outlined in sections (b) and (f), inclusive, of this regulation. In the interests of simplified accounting it is suggested: That a flat rate be established, on a per visit basis for the usual care given to acute and chronic illness (sections (b) and (c) above), for attendance at confinement (section (d) above), for emergency extractions (section (f) above), and for a bedside nursing visit (section (f) above); and that all special services (medical, nursing, or dental) be covered by an agreed reduction from the usual minimum fee schedule for such services with an agreed maximum fee. A recognized differential in fee shall be established between a home and an office visit. All fees shall be established on the basis of an appreciable reduction from the prevailing minimum charges for similar services in the State and local communities, with due recognition of the certainty, simplicity, and promptness of payment that authorization from the local relief administration insures.

This schedule shall only apply where the expenditure of Federal Relief Funds is involved and shall not preclude the payment of additional amounts from local funds.

Where bedside nursing care is authorized, the flat rate per visit shall be established by agreement at not to exceed the certified cost per visit established for accredited visiting nursing organizations in the State or local district.

(h) *Bills*.—Physicians, nurses (or nursing organizations), and dentists who are providing authorized medical care to indigent persons in their homes shall submit to the local relief official, monthly (within 10 days after the last day of the calendar month in which such medical care was provided), an itemized bill for each patient. Each bill shall be chronologically arranged and shall contain at least enough information to permit proper audit (*i. e.*, name, age, and address of patient; general nature of illness or diagnosis; whether home or office treatment; dates of service; and status of case at end of month—cured, sent to hospital, dead, needs further care, *etc.*). Bills for medical care shall be accompanied by the original written order for such care, except for cases in which medical service under an authorization has not terminated during the calendar month covered by the bill, in which cases the bill shall show, in addition to the details required above, the date and serial number of the outstanding order. Retroactive authorizations shall not be issued or honored for payment.

Bills for special and accessory services, outlined under sections (e) and (f) above, shall give full details of such services, and bills for medicines and medical supplies, under (i) below, shall be subject to the same general requirements. Bills for drugs shall list the name and quantity of each. The formula and number of each prescription costing more than 25 cents shall be submitted with or made a part of the pharmacist's bill.

NOTE.—The submission of bills and their audit and authorization for payment will be simplified if the State Emergency Relief Administration provides a suitable bill form.

(i) *Medicine and medical supplies*.—Physicians providing authorized medical care to indigent persons shall use a formulary which excludes expensive drugs where less-expensive drugs can be used with the same therapeutic effect. When expensive medication is considered essential by the authorized attending physician it may be authorized after consultation with the local medical advisory committee.

Prescriptions for necessary drugs and medicine shall be restricted to the National Formulary or the United States Pharmacopeia. To avoid excessive expenditures for remedies of unknown or doubtful value proprietary or patent medicines shall not be authorized.

State and/or local relief officials are urged to make trade agreements with pharmaceutical organizations and druggists for uniform or reduced rates for prescriptions.

Authorizations for medical supplies shall be restricted to the simplest emergency needs of the patient consistent with good medical care.

In general, authorizations for medicine and medical supplies shall not be issued upon written request of the physician authorized to attend the person for whose use they are desired.

3. *Authority*.—The State emergency relief administration, responsible for the distribution of Federal and State Emergency Relief Funds to local relief administration, shall give approval to such statements of policy, proposed fee schedules, and detailed procedures, gov-

erning the provision of medical, nursing, and dental care in the home to recipients of unemployment relief, as may be established by State and/or local relief administrations, in accordance with the provisions of regulations 1 and 2, above, before such policies, schedules, and procedures shall take effect. It shall be the responsibility of the State emergency relief administration to formulate a program of medical, nursing, and dental care for indigent persons in their homes, which shall not be in conflict with the provisions of regulations 1 and 2, above, and to make sure, by giving or withholding approval, that analogous programs formulated by local relief administrations shall not be in conflict with such State program.

(a) *State and local professional advisory committees.*—State and local relief administrations shall request the presidents of the State and local medical, nursing, dental, and pharmaceutical organizations, respectively, to designate an existing committee or appoint a special committee, to advise them in the formulation and adoption of adequate programs for medical, nursing, and dental care in the home for indigent persons. The relief administrations shall be responsible for the final adoption of such programs. The medical, nursing, dental, and pharmaceutical advisory committees can assist these administrations in maintaining proper professional standards and in enlisting the coöperation of the constituent, professional membership in such programs. Local medical, nursing, and dental programs submitted to the State relief administration for approval should be submitted to the appropriate professional advisory committee for comment, before final approval is given. The appropriate professional advisory committees should be consulted by relief administrations with regard to disputed problems of medical, nursing, and dental policy and practice.

(b) *Licensed practitioners of medicine and related professions.*—When a program of medical care in the home for indigent persons has been officially adopted, participation shall be open to all physicians licensed to practice medicine in the State, subject to local statutory limitations and the general policy outlined in regulation 1, above. Physicians authorized by relief officials to give medical care under this program shall have accepted, or shall be willing to accept, the regulations and restrictions inherent in such a program. In order to provide adequate medical care it may be desirable for local relief officials to maintain on a district basis a list or file of physicians in the community who have agreed in writing to comply with the officially adopted program. Such a list of physicians should also facilitate a more equitable distribution of orders for medical services.

A similar policy and procedure shall be followed in the preparation of approved lists of nurses, dentists, and pharmacists. Licensure and/or registration to practice their respective professions in the State shall be a prerequisite to approval of graduate nurses, dentists, and pharmacists for authorized participation in the officially approved State program for the provision of medical care for indigent persons in their homes.

(c) *State program for medical care to indigent persons in their homes.*—When the State emergency relief administration has adopted a uniform program for medical, nursing, and dental care for indigent persons in their homes, in accordance with these rules, a copy of such program, including the statement of policy, fee schedules, and detailed procedures, shall be filed immediately with the Federal Emergency Relief Administration.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contributions to the fund:

Woman's Auxiliary to Berks County Society	\$100.00
Woman's Auxiliary to Lehigh County Society	100.00
Woman's Auxiliary to Northampton County Society	100.00
Woman's Auxiliary to Blair County Society	50.00
Woman's Auxiliary to Cambria County Society	25.00
Woman's Auxiliary to Montgomery County Society	25.00
Woman's Auxiliary to Carbon County Society	10.00
Woman's Auxiliary to Montour County Society	10.00
Woman's Auxiliary to Potter County Society	10.00
Woman's Auxiliary to Tioga County Society	5.00
Woman's Auxiliary to Huntingdon County Society	2.00

Total contributions since 1933 Report ... \$547.00

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since September 16. Figures in first column indicate county society numbers; second column, State Society numbers:

1933				
Sept. 16	Lycoming	127	7584	\$3.75
20	Lackawanna	236	7585	7.50
	Schuylkill	144-145	7586-7587	15.00
	Montgomery	176-177	7588-7589	11.25
21	Lackawanna	237	7590	7.50
	Butler	52-53	7591-7592	15.00
	Chester	89-90	7593-7594	11.25
	Schuylkill	146	7595	7.50
	Elk	27	7596	7.50
30	Luzerne	298-301	7597-7600	30.00
Oct. 3	Schuylkill	147	7601	7.50
5	Allegheny	1263-1270	7602-7609	41.25
	Lackawanna	238	7610	7.50
	Fayette	122	7611	7.50
10	Westmoreland	163	7612	7.50
	Columbia	32	7613	7.50
	Philadelphia	1932-1942	7614-7624	82.50
14	Westmoreland	164	7625	7.50
	Venango	51	7626	7.50
	Berks	173-174	7627-7628	7.50

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to October 15:

ALLEGHENY: *New Members*—Gilbert A. Bruecken, 4402 Penn Ave., J. Lazarus Goldfield, 590 Herron Ave., Edmund R. McCluskey, 3710 Fifth Ave., Francis A. Riley, 2837 Chartiers Ave., Pittsburgh; Robert C. Simpson, R. D. 2, Bridgeville. *Reinstated Members*—George H. Bolling, 3042 Penn Ave., George A. Zuck,

902 James St. N. S., Pittsburgh; Byron E. Shaw, 935 Pittsburgh St., Springdale. *Transfer*—Adolphus Koenig, 245 Melwood St., Pittsburgh (formerly of Corry) from Erie County Society. *Removal*—Herbert C. McClelland from Du Bois to 610 Cumberland St., Lebanon (Lebanon Co.).

BERKS: *New Members*—Ronald McIntosh, 510 Walnut St., Henry S. Kieser, 122 Douglas St., Reading. *Death*—William E. Bates, Centerport (Jeff. Med. Coll. '86), Sept. 15, age 68.

BUTLER: *Reinstated Members*—John W. Shadle, 244 S. Main St., William R. Cowden, 238 S. Main St., Butler.

CHESTER: *New Member*—Scott Lewis, West Chester. *Reinstated Member*—C. Ira Pratt, Coatesville.

CLINTON: *Death*—Luther M. Holloway, Salona (Bellevue Hos. Med. Coll. '68), September 1933, age 89.

COLUMBIA: *Reinstated Member*—Daniel W. Beckley, Bloomsburg.

ELK: *Reinstated Member*—Jesse D. Johnston, Emporium.

FAYETTE: *Reinstated Member*—Blaine B. Barton, Markleysburg.

LACKAWANNA: *Reinstated Members*—Robert B. McKeage, Scranton Life Bldg., Paul F. Polentz, 1727 N. Main Ave., Helen Houser, Medical Arts Bldg., Scranton.

LANCASTER: *Removal*—Harry C. Hoffman from Lancaster to 146 E. Church St., Somerset (Somerset Co.).

LUZERNE: *Reinstated Members*—H. Gordon Guyler, 37 Mallory Place, Charles H. Phillips, 221 S. Franklin St., John L. Lavin, 202 Shoemaker St., Wilkes-Barre; John C. Fleming, Dallas. *Deaths*—Robert Goodman, Benton (Med. Chi. Coll. Phila. '11), July 19, age 46; Samuel M. Wolie, Wilkes-Barre (Jeff. Med. Coll. '94), Oct. 4, age 65.

LYCOMING: *New Member*—Stuart B. Gibson, 416 Pine St., Williamsport. *Death*—J. Elmer Schaefer, Cogan Station (Coll. Phys. & Surg. Balt. '96), Sept. 17, age 65.

McKEAN: *Death*—James B. Stewart, Bradford (Medical Coll. of Ohio, '88), recently, age 61.

MONTGOMERY: *Deaths*—William G. Miller, Norristown (Univ. of Pa. '97), Sept. 6, age 59; Vincent Z. Keeler, Harleysville (Jeff. Med. Coll. '80), Sept. 11, age 75.

MONTOUR: *Death*—Sedic S. Rine, Danville (Univ. of Pa. '18), Oct. 13, age 40.

PHILADELPHIA: *Reinstated Members*—Charles R. Bridgett, 3332 Chestnut St., John A. Bertolet, 329 S. 18th St., Isadore Katz, 615 Pine St., Edward J. Moore, 1538 N. 15th St., Harry S. Weaver, Jr., 4503 Spruce St., Marie Severac, 336 E. Tulpehocken St., Gtn., John Q. McDougald, 4061 Aspen St., Philadelphia. *Removal*—Robert A. Houston from Philadelphia to Millheim. *Death*—Ledru P. Smock, Haddonfield, N. J. (Univ. of Pa. '82), recently, age 76.

SCHUYLKILL: *Reinstated Members*—Charles V. Wadlinger, John W. Conrad, Port Carbon; Edward V. Tolan, George H. Boone, Pottsville; John G. Striegel, 545 Logan Ave., Altoona (transferred to Blair Co. Society).

VENANGO: *Reinstated Member*—Charles H. Ashton, Franklin.

WESTMORELAND: *Reinstated Members*—Bert Haughwout, Derry; George L. Krieger, New Kensington.

County Society Reports

BERKS—SEPTEMBER

The regular meeting was held at 3:15 p. m., Sept. 13, at Medical Hall, Reading, with President Erwin D. Funk in the chair. Subsequent to the short business session attended by about 75 members, O. H. Perry Pepper, professor of clinical medicine, University of Pennsylvania Medical School, discussed "Blood Dyscrasias, With Special Reference to Agranulocytic Angina."

Dr. Pepper said in part: A recurrent reduction of the circulating white cells from unknown cause and accompanied when sufficiently severe by invasion of mucous membrane by the resident flora with ulceration and necrosis, is the ailment, with angina, to which the term "agranulocytic angina" has been given.

Since the leukopenia precedes the angina, the etiology has evaded us. Vincent's organisms are frequently found in the ulcerations, but there is no evidence of a causal relationship. Allergy has been present sufficiently often to suggest a relation to the periodic leukopenia. The syndrome often appears after a minor trauma, such as dental extraction, but whether this initiates the leukopenia or whether the two happen coincidentally is not known. Women are affected more frequently than men. Age, heredity, climate, or season does not alter the incidence. No report of contagion has been made.

Local lesions consist of ulceration and necrosis, with little or no reaction in surrounding tissue. There is no tendency to pus formation. Frequently the necrosis appears to be primary, and patches of necrosis appear in the bone marrow, tonsils, and lymph nodes. Any mucous membrane may be the site of the lesion, although some necrotic areas may appear in the skin. The bone marrow has been found to be sometimes red, sometimes yellow; the red color is due more to hemorrhage than to increased red cell formation. Microscopically, a great lack of the progenitors of the granular leukocytes is evident correspondingly with the absence of these cells from the blood. The spleen and lymph nodes, even beyond those draining the areas of the local lesions, are usually enlarged and may be tender. The liver may be enlarged and jaundice present. Bacteriologic studies have yielded various results: The local lesions in the mouth and throat always show Vincent's organisms; the blood is usually sterile until the terminal stages. A positive blood culture, obtained early, always suggests the case is one of sepsis with secondary leukopenia.

In the mild cases much variation may occur with a reduction of white cells to below 3000 per mm.³ without any recognized symptoms. In the slightly more severe types, there may be a puffiness of the gums or slight soreness of the throat, fever, and malaise. In many patients no history of recurring mild attacks is obtained, and the first manifestation is a violent and perhaps fatal attack appearing spontaneously or following minor oral surgery. In a severe attack, with the fever reaching 103°F. or more, there is marked prostration and malaise. Soreness of the throat or tenderness of the gums is an early and may be the first symptom. Chewing may be impossible and swallowing difficult. There may be tenderness of the regional lymph nodes. Necrotic lesions in the rectum will lead to melena; in the vagina, to discharge. If the necrosis is extensive along the gingival margin, there may be extreme fetor oris, teeth may be loosened and lost, and following bone involvement, there will occur discharge of pieces of the necrotic alveolus. Improvement of the

local lesions accompanies a rising blood count; a diminution in count below 500 is of the gravest prognostic significance. There is no special involvement of heart or kidneys, although the urine is that of any febrile state.

Leukopenia is applicable to any count below 5000. Periodic drops below this characterize the mild recurrent form; those to 1000 or below are found in all severe attacks. Below 500 the prognosis is grave but not necessarily hopeless. With a count of 1000 or less one may find but an occasional neutrophil in a search over many fields. Improvement is accompanied by a reappearance of the neutrophilic leukocytes, but on the contrary in severe cases, none may be seen even after repeated large transfusions. During the interval between attacks in those undergoing several, the white count tends to remain at a lower level than normal. Eosinophilia is present in those cases in which allergy was thought to be an etiologic factor.

Abortive attacks would probably be thought to be a "cold" unless a previous severe attack had pointed out their true nature. The discovery of leukopenia would indicate the need for a search for exposure to radium, roentgen ray, or benzol, or injection of arsphenamine. If anemia also is present, aplastic anemia should be considered. If high fever, chills, and severe toxemia are present, and a leukopenia is found, the possibility of an overwhelming infection is great. A positive blood culture will clinch the diagnosis. One should be careful not to be led by the finding of Vincent's organisms into accepting the case as one of Vincent's angina. The throat of agranulocytic angina differs markedly from that of diphtheria and from that of the usual type of streptococcal infection; moreover, leukopenia is not the rule with these conditions. The frequent finding of a recent dental extraction or other oral surgery should make one suspicious. Routine blood counts in all angular patients will distinguish the cases.

Fully developed agranulocytic angina has a high mortality (perhaps over 80 per cent), and the lower the white count, the graver the prognosis. The prognosis of recurrent leukopenia is good; patients with abortive attacks and even attacks with mild angina have repeatedly survived. Such individuals, however, are in danger of a more severe attack with its accompanying fatal prognosis.

Arsphenamine has been very widely administered without any apparently beneficial results; it is certainly unwise to employ an agent which is in itself a cause of leukopenia. The local lesions require cleansing at frequent intervals. Locally, arsphenamine may be used, or 25 per cent trichloroacetic acid, and 10 per cent neoarsphenamine in glycerine may be employed. If the leukopenia is moderate, the individual attack may require no active treatment. More severe leukopenia should be promptly combated by repeated transfusion. Plethora need seldom be feared and may be avoided if necessary by a preliminary venesection. Stimulation of the bone marrow has been tried by bleeding, by minimal doses of roentgen ray, and by the various liver extracts, which have for the greater part been found useless. If there is an allergic condition, the patient should be studied for hypersensitivity and appropriate desensitization measures.

PEARL E. HACKMAN, *Reporter*.

BLAIR

Sept. 6, 1933

The Blair County Medical Society held a special meeting, Sept. 6, at the Altoona Hospital. John R. T. Snyder presided.

The following resolution and plan for conducting dispensaries and clinics were adopted:

RESOLUTION

WHEREAS, The number of applicants for free medical service at the dispensaries in Blair County has increased so rapidly that adequate care for all is difficult; and,

WHEREAS, Many of these applicants do not belong to the charity group but rather are stable citizens temporarily without funds; and,

WHEREAS, Many applicants for free services have, in the past, taken advantage of the good will of the dispensaries and the physicians serving them; and,

WHEREAS, The expense to our hospitals has become almost unbearable, and the time demanded of certain physicians in rendering this free service is beyond reason; and,

WHEREAS, Every conceivable effort should be made to preserve and maintain the morale and self-respect of this vital portion of our citizens; and,

WHEREAS, It is the belief of the Blair County Medical Society that the health of the general public is best conserved by direct contact with the family physician; therefore, be it

Resolved, That those temporarily embarrassed from lack of funds should be given the advantage of medical care by the family physician; and further be it

Resolved, That dispensaries should be conducted solely for those that are regarded as public charges, or for such cases as the family physician feels he is not equipped to care for, and refers to the dispensary as pay cases or vouched for by himself, as deserving of free treatment. However, it is fully realized that in the final application of any rules or recommendations, much depends for their success on the diplomacy and the sound judgment of the persons in charge of the various clinics and hospitals; and further be it

Resolved, That effect be given to this resolution by cooperative action on the part of the Blair County Medical Society with all other interested organizations toward the adoption and successful administration of the following plan, to the fulfillment of which membership of the Blair County Medical Society is pledged:

PLAN

1. That all social agencies and dispensaries will refer patients who at one time or another have been under the care of a private physician back to that physician. Persons who claim to have no family physician, or who have not been attended by any physician in the past, but who are now or ultimately self-sustaining, are to be referred to the nearest neighborhood physician.

2. That the physician to whom such patients are referred will proceed in one of the following ways:

- (a) To treat the patient and collect the standard fee for such treatment.
- (b) To treat the patient on a deferred payment basis.
- (c) To treat the patient without charge.
- (d) To charge a partial fee, when upon adequate investigation, he is satisfied the patient cannot pay the standard fee, and then only when he explains to the patient that such is a partial fee made to suit the patient's present financial circumstances, and that the standard fee will prevail when his circumstances have improved.
- (e) To refer the patient to a dispensary in writing, and stating the patient's financial circumstances, whether he deserves free, part pay, or full pay-treatment.

3. That the plan is not to apply to emergency cases, nor to cases under treatment by dispensaries at the time of its inauguration. That emergency cases shall always be given first aid treatment and then referred to their family or neighborhood physician, as provided in part 1.

4. That those members of the Society who fail to give their proper coöperation in bringing about the successful termination of this plan, shall be dealt with as the Society may deem proper.

5. To expedite and simplify the procedure, a card system is to be adopted. In case of an emergency treatment, the card can be presented after such treatment. In case of nonemergency, the card is to be presented to the patient before treatment is started. This card to state: "The bearer is applying for treatment," at the named dispensary or clinic. It is to be returned, signed by the personal physician of the patient, or a neighborhood physician if the patient has no personal physician, stating case as suitable for clinic or dispensary treatment.

Sept. 26

The regular meeting was held, Sept. 26, at the Altoona Hospital; James W. Hershberger presided.

John G. Striegel transferred from Schuylkill County Medical Society to Blair County.

"The Interpretation of Precordial Pain" was given by Henry K. Mohler, associate professor of medicine, Jefferson Medical College. Dr. Mohler stressed the most important entities manifesting this symptom, namely, angina pectoris and coronary occlusion.

JOHN D. HOGUE, *Reporter*.

CHESTER—OCTOBER

The regular meeting was held at the Phoenixville Hospital, on Oct. 17. After the dinner, the meeting was called to order by Acting President Harry A. Rothrock. A letter was read by the secretary in reference to the Federal Relief Fund which will soon be available for the physicians in Pennsylvania who treat those patients on Emergency Relief. As this matter is to be worked out in each county between the medical society and the local relief board, it was decided that the Committee on Medical Economics should represent the Chester County Medical Society in this matter. U. Grant Gifford, chairman of the Public Relations Committee, reported that Health Day would be observed on Nov. 10, and that several speakers had been obtained for the program. J. Clarence Funk, State Department of Health, Harrisburg, will be the principal speaker on that occasion. Councilor Edgar S. Buyers spoke of the activities of the officers of the State Society in obtaining, as soon as possible, the payment of doctors from Relief Funds for the care of indigent patients.

Moses Behrend, president-elect of the State Society, spoke on "The Diagnosis and Treatment of Upper Abdominal Conditions," and illustrated his address with an instructive motion picture film. Dr. Behrend divided upper abdominal conditions into two groups. In the first group, he included gallbladder, liver, biliary passages, and pancreas; in the second group, stomach, duodenum, and intestinal tract. In the differential diagnosis, gallstone colic causes that characteristic early morning pain, requiring morphine for relief. In this condition vomiting frequently precedes pain, in appendicitis, particularly if the appendix is located high in the abdomen, vomiting follows pain. In duodenal

ulcer, there is frequently pain with nausea and vomiting and this pain is usually relieved by food. Pancreatitis usually gives much the same symptoms as gallbladder disease. Angina pectoris, acute pneumothorax, pneumonia, and pleurisy all give characteristic pains which should be distinguished from abdominal conditions. Gallbladder disease frequently predisposes the individual to myocardial disease and the heart often improves after the gallbladder is removed. Hepatic abscess, cancer of the colon and cecum, acute appendicitis, should all be distinguished from other abdominal conditions. Dr. Behrend concluded his address with some excellent motion pictures illustrating several types of lesions as well as operative procedures in the treatment of many of these conditions. He also illustrated the technic of spinal anesthesia using neocaine crystals dissolved in spinal fluid.

JOSEPH SCATTERGOOD, JR., *Reporter*.

CLARION—SEPTEMBER

The meeting of the Clarion County Medical Society was held at the Narrows Inn, near East Brady, Sept. 15. President Clement E. Sayers presiding.

Sylvester J. Lackey, of Clarion, read a paper on "Symptoms and Diagnosis of Anterior Poliomyelitis." He said in part: Anterior poliomyelitis is not essentially a disease of the central nervous system, but is a general systemic infection, in the latter part of which paralysis is a comparatively infrequent accident.

Incubation period is ordinarily 7 to 14 days and most commonly 7 to 10 days. According to Gordon, anterior poliomyelitis is divided into 3 periods: (1) Initial or systemic; (2) central nervous system period or meningeal; (3) paralytic period. Any phase may be light and escape detection. In initial phase general systemic reaction has no characteristics of anterior poliomyelitis. Physical findings are negative. Important symptoms are fever, headache, pain, neck stiffening, tonsils and eyes congested. Gastro-intestinal disturbances are present; diarrhea is common at first but when second phase appears constipation is noted. There is no relationship between gastro-intestinal symptoms and the severity of the disease. The child is restless, breathes rapidly, tremor present in every motion, and from this point the course of the disease develops rapidly. The patient is drowsy and tired and can be aroused from deeply stuporous condition to peevish irritability and promptly returns to somnolence. Temperature is usually 102° to 103°F. for 24 to 48 hours and a remission, then a second attack. In older patients there is dizziness and dimmed reflexes. Pain is a common symptom owing to involvement of the posterior spinal roots, thus anterior flexion of the spine causes pain and on this depends the spine symptom, 95 per cent of patients having rigidity of the spine.

Blood examination in first phase has a leukocytic count of 15,000 to 25,000. Spinal fluid is of greatest importance, normal fluid contains 10 cells or less to a cubic millimeter, and a spinal puncture should be done early. In earliest hours the fluid is clear, pressure and volume increased, no cells. Later should the second or meningeal phase occur the spinal fluid changes are striking, the pressure and the amount, which were increased, are diminished, cell count increases. Generally if the cell count is less than 100 in the first 12 to 18 hours, paralysis is less likely to develop than those of 500 cell count or more.

Fluid is rarely turbid, owing to small cell count and this is the opposite of and distinguishes it from cerebro-

spinal meningitis. Should the second phase appear, the degree of central nervous tissue involvement may vary from the slightest transient irritation of the meninges to a complete destruction of the gray matter. There is no warning of attack and the initial paralysis is the final one.

The most valuable sign is the spine sign, cannot flex spine anteriorly because of pain.

Paralytic period, if present, usually by the third day of the second period. Parts most frequently paralyzed are legs, one or both. Bladder retention occurs.

Fatal cases are usually of the progressive character of the weakness, when the first sign of the embarrassment of respiratory muscles appears, the child having been drowsy, suddenly becomes alert and watches everything. Attention is called to the breathing as the child bends every effort to the muscles of breathing. This is an evil omen and men who have seen much of the disease prefer to see a patient drowsy and stuporous than alert with anxious anticipation.

Gale H. Walker, of Clarion, read a paper on "Treatment of Anterior Poliomyelitis." He advised to isolate the patient. Minimum quarantine period is 21 days. Nonimmune contacts should be kept out of school for 14 days. Cleansing of mouth and use of nasal sprays is advised for contacts. During acute stage the treatment is symptomatic. Repeated lumbar puncture for pain, discomfort, and, restlessness. There should be absolute rest in bed for at least 2 weeks or until irritative symptoms have disappeared. The affected parts should be splinted, padded with cotton. One should beware of foot drop. Use codeine and morphine as needed. If muscles of glutton are paralyzed, feeding by aid of tube is required.

Use convalescent serum, if possible intravenous, intramuscular, and intraspinal. After acute symptoms have passed faradism 3 times a week to such muscles as will respond; galvanism to other muscles. Massage and passive movements after hypersensitive condition has passed. Mechanical treatment with mechanical appliances: Myotomy, tenotomy, and artificial ankylosis.

Convalescent serum is of greatest potency if obtained 3 months after recovery of patient. It has been used since 1911. Its effectiveness after signs of meningeal involvement is less than when used before such condition arises. For that reason early diagnosis is of utmost importance. Intramuscular injections 10 to 50 c. c. for children and 50 to 70 c. c. for adults are of some value, and may be preferable to intravenous injections due to difficulty in children's veins. Injections should be repeated at 12 to 24 intervals. In children 10 to 30 c. c. intraspinal injections, and withdrawal of like amount of serum plus 40 to 100 c. c. intravenous injection, are advised. Blood from a donor is twice centrifugized and cultured for sterility. Adult donor should give 200 to 250 c. c. of blood; 500 c. c. of blood yields 200 c. c. of serum.

The return of fever and high pulse rate in 24 hours after initial drop of fever and return of symptoms are referable to central nervous system such as twitching of muscles, irritability, pain in extremities, and rigidity of neck indicates continued use of serum. Even if good results are obtained from initial injection of serum a second should be given.

In orthopedic treatment; first determine muscle groups involved. Put splints on affected joints holding them in neutral position. Use Thomas collar in cervical cases, Cabot splint on leg muscles, and aeroplane splint in arm cases.

Beware of bed sores and pressure sores. Splints should be kept on until muscle tenderness disappears.

Grade muscular condition as: Poor, ability to move on horizontal plane but not against gravity; fair, ability to move against gravity but not resistance; good, ability to move against resistance.

Baking, massaging, and passive exercise with avoidance of fatigue are advised. Convalescence is of 2 years' duration. Do not let up treatment until sure of no fatigue.

The program committee named hypertension as the subject for the next meeting.

JAMES M. HESS, *Reporter.*

ERIE—OCTOBER

The meeting, held Oct. 9, was in the form of a clinical day with Charles L. Scudder, of Boston, as the guest of the society. Dr. Scudder conducted fracture clinics at Hamot Hospital in the morning and at St. Vincent's Hospital in the afternoon. Many interesting types of bone injuries were presented and discussed. A luncheon at the Erie Club was given by the local members of the American College of Surgeons for Dr. Scudder who assisted in planning a northwestern Pennsylvania fracture committee.

The regular meeting of the society was held in the auditorium of Hamot Hospital, Maxwell Lick presiding. Frank B. Krimmel and Norbert D. Gannon presented the report of the delegates to the State Society meeting and the election there of Charles G. Strickland as delegate to the A. M. A. taking the place of Harry W. Mitchell, Warren, deceased.

Dr. Scudder presented the paper of the evening—"Fractures of the Skull, Fractures of the Neck of the Femur, and the Operative Treatment of Recent Fractures."

Brain injury is always more important than the fracture of the skull itself. The brain, the circulating blood, and the cerebrospinal fluid are 3 constant factors within an inclosed space, the cavity of the skull. These factors have the ability to adjust themselves under varying conditions and any injury which interferes with this adjustment produces pressure changes. Treatment should be directed to the restoration of the adjusting mechanism. In a majority of cases, direct surgery is not indicated except:

1. Scalp, if there is laceration of the scalp with maceration, these areas should be cleansed, repaired, and drained to prevent further infection.

2. Compound fractures, again to remove foreign bodies and to cleanse the wound; also, removing detached portions of bone. Here, gentle suction is helpful, and may be used even upon the brain surface itself without damage.

3. Depressed fractures, operation is indicated to release pressure especially over the motor areas.

4. Increased intracranial pressure, surgery is indicated if the clinical signs, symptoms, and mechanical data definitely point to this condition. Dr. Scudder defended the use of lumbar puncture which is opposed by certain prominent brain surgeons.

5. Extradural hemorrhage, operation is imperative whenever the diagnosis of extradural hemorrhage is made, ligating at once the torn middle meningeal artery.

Fractures of the skull are divided into 3 important classes: I. (A) Cases in which the trauma is so severe and so rapid that there is little time for the adjusting mechanism of the contents of the skull to

produce an increased intracranial pressure. In this type of injury, the damage relatively immediately snuffs out life and there is no treatment of any value. This group represents about 20 per cent of the total.

(B) This type of case is one in which the pathology is unknown. Many times the diagnosis is that of concussion and these patients usually recover. It is thought that the brain changes are those of microscopic hemorrhage.

II. Seventy per cent of all head injuries are in this group. These patients show increased cerebrospinal pressure from 10 to 20 mm. mercury. There is usually unconsciousness and the blood pressure usually rises. Dr. Scudder recommends the decompression as recently advocated by Temple Fay, of Philadelphia, with the use of intravenous hypertonic solutions of magnesium sulphate or glucose. In these cases Dr. Scudder also controls the unconsciousness resulting from increased cerebrospinal pressure by the use of lumbar puncture, removing sufficient fluid to keep the pressure within normal limits.

III. In about 10 per cent of the cases, the cerebrospinal pressure rises higher than 20 mm. mercury. While surgical intervention has been strongly advocated in this group, intravenous solutions of glucose or magnesium sulphate, with careful lumbar puncture, plus other palliative measures is sufficient to carry these patients through.

Patients who have suffered extravasation of blood between the brain and the dura show marked disability for many months. This is characterized by mental cloudiness, dizziness, and headaches. Since hemorrhage of this type is usually venous in origin with stagnation, the clot absorbs slowly and often cystic formation takes place in the area of hemorrhage. Such patients, after a reasonable length of time, who show no improvement in symptoms should be operated on, that the clot or cyst be localized and then removed. According to Osler, "When we know our pathology, so must be our treatment" and as the surgeon learns more of the pathology of head injuries he will operate on fewer cases.

Fractures of the neck of the femur are arbitrarily divided into fractures of the base of the head, fractures of the middle of the neck, and fractures of the base of the neck. The work of Whitman, Delbet, Albee, Brackett, Phemister, Nicholayson, Smith Peterson, and Cotton was reviewed. The necessity of roentgenograms taken in the oblique position with a curved cassette was emphasized, without these it is impossible to see whether or not complete internal rotation has been accomplished. This improvement in technic is an important contribution to the accomplishment of securing more end-to-end apposition, thus eliminating the many cases of malunion and absorption of the neck. The method of Bazan, who through a lateral incision drills the trochanter and neck to encourage more granulations, was described.

The operative treatment of recent fractures was given its impetus in the United States by Lane's paper on open reductions using the steel plates and screws which bear his name. The necessity was emphasized of first handling fractures by intelligent mechanical traction and selecting only those cases for operative intervention which require that treatment. When the operative treatment of recent fractures is indicated, the same care, skill, judgment, and patience are required. Plates of sufficient size, firmly fixed in place by screws of proper length, should be used and when their work has been accomplished it is best to remove them.

BENJAMIN GOLDMAN, *Reporter*.

FAYETTE—SEPTEMBER

The meeting was held in the Medical Hall of the Uniontown Hospital, Sept. 7, at 8:30 p. m. with Eben R. Ingraham presiding.

Ross R. Snowden, of Pittsburgh, gave an illustrated talk on the anatomy, physiology, and various functions of the kidney, demonstrating the mechanism of edema. He said in part: The glomeruli of the kidneys may pass into the tubules as high as 200 liters of blood filtrates most of which are reabsorbed with the residue passing into the pelvis as urine. The question of selective reabsorption is still debatable but the existing evidence points toward its existence. The urine is a residue of the kidney and not a product. The excretion rate of urea has been found to be directly proportionate to the blood concentration of the normal kidney. The mechanism of nephritic edema is well illustrated in cases of nephrosis in which no red blood cells are passed from the kidney, but an abundant amount of albumin is. The edema is due to the loss of albumin in the urine disturbing the osmotic relationship of the capillaries.

The protein in the urine consists of the albumin and the serum globulin which normally exist in a definite ratio of $4\frac{1}{2}$ to $2\frac{1}{2}$. The ratio is more important than a knowledge of the total protein. The loss of albumin in the urine means a loss of blood albumin changing the albumin: serum globulin ratio. The total protein content of the blood, therefore, is low in edema. Salt is frequently retained but is not the cause of the edema. Normally the protein in the blood has an osmotic pressure of 30 mm. of mercury. When part of this protein is lost a change of osmotic pressure may result. It has been definitely demonstrated that a low protein diet can produce edema.

Waid E. Carson, of Pittsburgh, read a paper on the "Retinal Changes in Nephritis." He said in part: Retinitis may be divided into the albuminuric, scarlatinal, arteriosclerotic, hypertensive, and the type associated with pregnancy. The cardinal features observed in retinitis are: Hemorrhages; blurring of vessels and optic disks with lowered pigment reflection; white spots, which are usually the result of escaped blood serum; stellate white spots; and retinal vessel damage, which is sometimes obscured by edema. The changes that occur are believed due to an increased blood pressure. Other causes are debatable.

The differential diagnosis usually lies between papillitis and diabetic retinitis. Massive detachment of the retina occurs more commonly in pregnancy, with a poor prognosis.

Dr. Carson also discussed and demonstrated in detail the anatomy, physiology, and blood supply of the component parts of the eye.

Gene Cooke reported the status of encephalitis in St. Louis, Mo. Three types of cases were found: After infections; in epidemics; and, heterogenous cases occurring sporadically. The first case of encephalitis seen in St. Louis presented symptoms typical of tuberculous meningitis but with a sudden onset and later recovery. Other cases developed with an increase of lymphocytes in the spinal fluid and symptoms referable to the nervous system such as headache, neck stiffness, positive Kernig's sign and variable fever. Of the 400 cases observed, there were 28 deaths, 80 per cent occurring in older persons. The first few cases developed in the suburbs of St. Louis, later extending into the city. Of the numerous cases recovered, none has developed any sequelæ as had occurred in the previous encephalitis epidemic in 1920.

RALPH L. COX, *Reporter*.

HUNTINGDON—AUGUST-SEPTEMBER-OCTOBER

The members of the Huntingdon County Medical Society, with their families, friends, and several guests, held their annual picnic on the afternoon and evening of Aug. 9, at the Juniata Valley Club, near Mt. Union. The amusements were swimming, baseball, golf, cards, and croquet. A short informal meeting of the society was in charge of Vice-President William T. Hunt. District Councilor Augustus S. Kech outlined recent activities of the Board of Trustees. The remainder of the evening was spent in competitive parlor games, and suitable prizes awarded.

The meeting of Sept. 14 was held at the J. C. Blair Memorial Hospital, Huntingdon, with a large group of members present as well as several visitors from neighboring counties. "Anterior Poliomyelitis" was the theme. A résumé of the disease was given by Charles A. R. McClain. The discussion was led by Charles R. Reiners, on the pathology, and Marshall B. Morgan, regarding the treatment.

Francis S. Chambers, chief surgeon of the State Hospital for Crippled Children, Elizabethtown, Pa., discussed anterior poliomyelitis from its various angles. In the acute stage absolute rest is necessary. If more than 24 hours have passed since the onset of the disease, the introduction of sera into the spinal canal may be harmful rather than beneficial. To make an irritable child undergo the struggle of spinal puncture may damage the horn cells and affected muscles needlessly. After the subsidence of pain, splinting or casting keeps the muscles at rest. Care should be taken that the cast or splints are not allowed to stay on too long, as stiffened joints or contractures may occur. The Bradford frame is ideal, if it is possible to erect one in the home. The best heat applications are by means of the hot pack, and these give relief from the pain, and maintain circulation. Submerging the affected parts in baths of warm water (90° F.) also is recommended.

After all symptoms have disappeared, the child should be restrained from too much activity. Dr. Chambers explained how gait is affected by the paralysis of certain muscle groups, and the best means of applying braces for these deformities. Exercises while the victim is in a tank or pool of warm water begin to restore function at an early stage. Careful electric stimulation may be of value, provided the well muscles are not overstimulated, and thus injure the paralyzed groups. Passive motion of the joints to the full extent of motility should be begun as soon as pain has disappeared. The great bulk of recovery comes in the first year, after that the prognosis for further improvement is poor. Operation should be deferred until there is no hope of restoring any more function by other means.

The Huntingdon County Medical Society met Oct. 12, in the staff room of the J. C. Blair Memorial Hospital, Huntingdon, Harold G. Horton in the chair. Howard C. Frontz, reporting for the Public Relations Committee, announced that Public Health Day would be observed on Nov. 9, with two public meetings, one to be held in Huntingdon; the other at Mt. Union.

The chair appointed Charles R. Reiners, James R. St. Clair, and George A. Parker as a Medical Emergency Relief Committee to cooperate with the State committee in securing appropriations from the county relief board for the medical care of the indigent.

Reports of the State Convention were given by Cloy G. Brumbaugh and Walter Orthner. The scientific program consisted of a "Symposium on Diabetes." The diagnostic aspect was covered by Walter Orthner;

Charles R. Reiners presented the pathologic and laboratory aspects. The main points were: Degeneration of the pancreas results in a deficiency of the hormone for combustion of glucose in the system. Sometimes there is an overgrowth of the tissue, in which the symptoms will resemble those of an overdose of insulin. Degeneration of the kidneys is often seen, and leads to a true nephritis. In the prolonged diabetic case there may be affection of the anterior horn cells, with cord symptoms. Retinal changes occur in later stages, and cataracts are often formed.

In discussion, Marshall B. Morgan stated that diabetes is seen more often in these later days than it was many years ago. The main rôle of insulin in the treatment of diabetes is in averting the complications and as treatment in the young. The mainstay of treatment still remains the diet, and prevention of acidosis. Blood sugar tests at frequent intervals are equally as important as urinalyses.

Fred R. Hutchison stated that diabetes is becoming to be considered as of hereditary origin. That glycosuria is often due to emotional stress is shown by the fact that 75 per cent of the patients presenting themselves for operation have sugar in the urine, although very few show a hyperglycemia. Sugar tolerance tests are important in excluding the nondiabetic glycosuric states. William A. Doebele stated that insulin has made surgery comparatively safe for diabetics. They should, however, be carefully prepared before operation, by pushing the carbohydrates in the diet, with adequate insulin to secure the complete combustion of the carbohydrate. Diabetics should keep themselves scrupulously clean, especially about the neck and feet, in order to avoid serious infections.

WALTER ORTHNER, *Reporter.*

LACKAWANNA—OCTOBER

The first business meeting of the fall season was held, Oct. 10, with Vice-President Irwin W. Severson in the chair. Confronted by many issues which have threatened the profession, the Public Relations Committee has held weekly meetings and completed its work on 4 major problems having to do with compensation work, child health, medical economics, and the medical charities. Joint meetings were held with the Governor's Committee on Workmen's Compensation Reform and with the Board of Directors of the local community chest which directs medical and other charities. An almost uniform success has marked their carefully planned efforts, and their reports were received with much enthusiasm. Eleven proposals for membership were received.

A testimonial dinner honoring Byron Jackson, of Scranton, who recently completed his term of office as president of the Radiological Society of North America, will be held in the near future.

FREDERIC B. DAVIES, *Reporter.*

LUZERNE

Sept. 6, 1933

The meeting was held, Sept. 6, at Wilkes-Barre, with President Charles L. Shafer presiding. There were 63 members and 4 visitors in attendance. The scientific program was a symposium on "The Eyes of the Preschool Child." Joseph V. Connole spoke on "Congenital Defects, Birth Infections, Injuries, and New Growths"; Wilson C. Marsden, on "The Correction of Squint and

Visual Defects"; Miss Evelyn Carpenter, of the State Council for Blind, Harrisburg, on "Testing the Vision of the Preschool Child."

Dr. Connole, Wilkes-Barre, said in part, that 500 persons are blind through accidents and each year 70 persons are added to the list caused by accidents as arrows, stones, tear gas, guns, fireworks, explosives, sharp-pointed objects, flying objects, baseball bats, auto accidents, spinning tops, chemicals, *etc.* Weapons and fireworks, causing 50 per cent of all, can be prevented by parental education. In the United States most eye accidents occur about July 4. One should discourage the playing of knip and the cutting of wood toward the eyes.

The location of the injury is important. Often with injury of one eye the sight of the other eye is also lost. A ciliary wound is the most dangerous.

Some common ocular diseases are keratitis, keratomalacia, syphilis, ophthalmia neonatorum. Routine use of silver nitrate (1 per cent) or Credé's method immediately following birth of the child has reduced blindness from 26 to 7 per cent.

Keratomalacia causes destruction to the eyes. This was prevalent in Denmark during the World War. It was caused by the use of artificial butter fat and skimmed milk, generally owing to the lack of fat soluble vitamin A. One eye becomes affected and then the other. The eye is sticky, with a dry cornea; blindness occurs in 50 per cent, and 50 per cent death. The treatment consists of feeding cod liver oil, orange juice, liver, eggs, whole milk; and applying yellow oxide of mercury to the eyes.

Glioma is a tumor of the retina which is thought to be congenital. It occurs within the first 4 years of age. More than one of the same family may be affected. Early enucleation and roentgen-ray therapy are indicated.

Dr. Marsden, Wilkes-Barre, said in his paper on squint, that corrections of this condition should begin as soon as the diagnosis is made; therefore the patient should be referred early to the ophthalmologist. There are 2 groups, the convergent, which is more prevalent, and the divergent, which occurs later in life. The monocular, convergent type, is the most frequent and important. Hereditary influence is great. In all cases treatment should begin before age 6. Refraction is the most important step and the question arises how soon should the eyes of a child be refracted. Many say glasses can be given as early as age 1½ years. The eyes should be examined yearly thereafter. Glasses tend to correct the squint.

Amblyopia is not present in true alternating squint. If the squint occurs after age 7 it will persist. The treatment is the use of the occlusion bandage for 2 hours daily. Fusion training is postponed until there is co-operation from the child. If all other methods fail to cure the squint, surgery is resorted to. As long as squint exists amblyopia is feared and so surgery is done early. The deviation in alternating squint cannot be corrected. Amblyopia is not present.

Miss Carpenter said there are 2 important steps toward the testing of the vision of the preschool child: (1) Put the child at ease; (2) get the child himself to work or there must be coördination of the hands and eyes of the child.

The Snellen chart is to be used. It should be clean, well illuminated, and use a window card of 3 different sizes. Pennsylvania stands third of all states in examination of the eyes, so better eyes for children should result. Inspect for any deviations from the normal. In

addition to testing for visual acuity, notice external appearances and test for muscular balance.

In this State there are 10,000 cases of blindness, 66 per cent of which are preventable. Two things the Council for the Blind is attempting to do for these: Rehabilitation, using guide dogs, and vocational training. Blind persons are considered queer and often are mentally as well as physically blind. Why give them a rug to weave when they can do something else?

Venereal diseases cause a great percentage of blindness, 25 per cent being due to ophthalmia neonatorum. Credé's method should be stressed everywhere. In Pennsylvania there is a mandatory ruling of its use in all newborn babies. The use of silver nitrate, the early reporting of such cases to the State, and the education of the public of the seriousness of sore eyes depends upon the doctor. The lessening of the incidence of such cases hence depends very largely upon doctors. In congenital cases antisyphilitic treatment is as necessary as refraction is for certain conditions. The treatment of eye cases rests with the medical profession and so there should be better treatment in order to prevent more blindness.

Dr. Connole, in conclusion, asked if there were any statistics on ophthalmia neonatorum. He said even though an eye received the best treatment for a punctured wound it may prove fatal to the eye. Miss Carpenter said she could give no statistics offhand.

Thomas R. Gagon, Pittston, asked why a State which was so ambitious toward the prevention of blindness would allow any kind of a glasses' man, *etc.*, to carry on. Many patients whose eyes should be refracted properly, and those on the road to blindness, went to some one because he advertised inexpensive glasses.

Sept. 20

The regular meeting was held at Wilkes-Barre, Sept. 20, President Charles L. Shafer in the chair. William N. Bradley, associate professor of pediatrics, University of Pennsylvania Graduate School, read a paper on "The Prevention of Disease in Children."

Dr. Bradley said in part: During the first month of life 51 per cent of children die, and during the first year of life 48 per cent die. This is certainly a high death rate. The first of these figures can be reduced by adequate and thorough prenatal care of the mother. Thorough physical examinations enable one to cope with conditions caused by physical abnormalities; toxemias of pregnancies are prevented largely by careful watch of kidney function, diet, *etc.*; deaths and premature births are reduced by the use of adequate antisyphilitic treatment if syphilis exists. Breast milk is the most satisfactory food for the infant, but if a child is unable to have it, modifications of cow's milk are necessary. Proper handling and care of the milk, utensils in preparation of the formulae, and care of the nursing bottles will aid in the reduction of the high mortality.

Stress should be made on the importance of periodic health examinations, as defects are discovered which can be remedied and corrected, and in general the length of life is increased by instruction in proper hygiene and care of an existing condition. Because the family doctor has been so slow in taking up this important aspect of health it has passed off to be handled by other means and organizations.

Many diseases of children are preventable. In 1900 to 1904, diarrhea caused 20 per cent of all deaths in children. This has now markedly decreased because of better knowledge of the care of the child, of milk and water, *etc.*

Rickets usually begins after the sixth month of life but is occasionally seen as early as the third month. It is due to the reduction of calcium. It may be prevented by adequate doses of cod liver oil begun at two months of age. Proper diet and care of the mother in the prenatal period will aid also in its prevention. Direct exposure to the sun's rays prevents and cures the disease.

Scurvy is the most common disease in the second half of the first year. Free use of the citrus fruits and tomato juice begun at six weeks prevents it. Many cases of so-called rheumatism or arthritis are cases of scurvy.

Zerophthalmia is found in the latter of the child's life and is recognized by dryness of the conjunctiva. It is prevented by cod liver oil, and egg yolk.

Cretinism can be suspected by the third month. There is the thick tongue, development of pads of fat, and small stature. Metabolism tests are of value and excellent results have been obtained by thyroid therapy. Dr. Bradley once had a person under observation who was 8 years old and 3 feet tall.

Simple goiter is due to the deficiency of iodine. It is most prevalent in the Great Lakes' region and the Pacific Northwest.

Communicable diseases are an important group. Some still believe that each child should have the childhood diseases. They are spread by direct contact, flies, worms, excretions, and foods. Many of them are now prevented or modified by the use of vaccines, sera, or antitoxins.

Diphtheria, if immunization is further carried on, will be as scarce as smallpox. The nasal cases have the highest mortality, ranging from 25 to 35 per cent. The diagnosis was formerly made by the mothers who applied ham fat to the neck, and a bucket of lime was placed by the bed. Many remedies were used but with little avail until the introduction of antitoxin. In 1893, before the use of antitoxin, there were 1970 deaths; in 1906 the death rate was 1 in 14 cases. From age 6 months on immunize.

Scarlet fever is spread by the discharges from the nose and throat or ears. It is serious in young children, causing 74 per cent of all deaths in children under age 10. The Dick test should be done, by the injection of 0.1 c. c. dilute toxin intradermally. In 24 hours erythema is seen if positive. Immunize if the test is positive and parents are willing. The reactions are so severe that most doctors still hate to do this as they do not want the enthusiasm for the use of toxin-antitoxin to be lessened as it is of so great value.

The younger the child with measles, the more serious it is. Infection is greatest before the eruption appears. The earlier the convalescent serum is given, the more protection it offers.

Whooping cough is most contagious in the catarrhal stage but it is difficult to tell if a cough is to be whooping cough. The vaccine may help if given early. Ninety-nine per cent occur under age 10, and 50 to 60 per cent under 1 year.

Typhoid fever is prevented by the use of proper handling of water, boiling of milk, and the use of vaccine injections.

Smallpox is rare. Many states have compulsory vaccination and this has decreased this disease. Vaccinate the child before the end of the first year.

Tetanus has been and can be reduced by the use of antitetanic serum, thorough cleansing of scratches, cuts, and bruises.

Malaria has been reduced by screening of homes and porches, and doing away with swamps.

School teachers can do much in controlling the spread

of disease by regular inspection of the children, and sending home any suspicious cases of contagious disease.

In discussion, Elmer L. Meyers, Wilkes-Barre, said that up to ten years ago very little was said about prevention of disease. We can not always be sure that a cough means whooping cough and finally a number of other children develop the cough. Vaccines are effective if begun early. He inquired concerning the definiteness of scarlet fever immunization. William Baurys asked the experience with the use of placental extracts for immunization of children. Francis T. O'Donnell said the scarlet fever question will soon be settled by the U. S. government. The Allan precipitate toxoid has been used on government employees and will soon be marketed. It does away with the terrible reaction.

Dr. Bradley in closing said that he is hopeful for the use of the government toxoid. He has had no experience with placental extracts only for the purpose of increasing the flow of breast milk. If the parents are willing to have the scarlet fever toxin given for immunization it should be injected but they must be told of the severe reaction which accompanies its use.

Oct. 11

The regular meeting was held, Oct. 11, with Charles L. Shafer presiding. A report was given by Lewis T. Buckman, delegate to the State Convention in Philadelphia. The item of chief interest to us was the decision of the House of Delegates to hold the 1934 meeting in Wilkes-Barre.

Albin J. Drapiewski, Nanticoke, read a paper on "Mushroom Poisoning," with a case report. He said in part that cases of mushroom poisoning occur in all classes of society, much more in Europe than in the United States. Mushrooms are eaten more here than previously and so more cases will occur. Early records show the death of a wife, daughter, and two sons of one family from poisoning by the fungus. There are 1000 varieties of mushroom, 167 of which are edible, 69 are questionable and so not to be eaten. The poisonous ones can be told: (1) By the presence of a white cap, a ring on the stem, and a bulb on the stem. They grow in the woods and pastures. (2) The orange red cap with warty scales which can be scraped off. These have a bulbous base. Muscarin, an alkaloid, is the poisonous constituent. It and pilocarpine have like actions on the body. Symptoms of poisoning are excessive secretion of the saliva and tears, watery evacuation of the bowels, abdominal pain, profuse sweating, vertigo. Symptoms begin about 15 minutes after eating followed by collapse. Microscopically, the heart muscles, diaphragm, and external muscles are involved in fatty degeneration. The liver is 53.6 per cent of fat. There are hemorrhages of the stomach, intestines, heart, and pericardium. Gangrene of the mucous membrane of the bowel is seen. Jaundice is due to the hemolysis of the red blood cells. Occasionally a regeneration of the liver cells is found. Treatment consists in emptying the stomach by lavage; watching the action of the heart, use of whiskey and ammonia, atropine grain 1/58.

CASE REPORT.—Male, age 50, who began with vomiting and diarrhea, followed by weakness, was admitted to the hospital, August, 1933. Two days before, he had a meal of mushrooms which he had gathered. Vomiting and diarrhea continued for two days, followed by delirium.

Necropsy showed hemorrhages of the stomach wall, fatty infiltration of the liver; microscopically, fatty degeneration of the heart muscle and kidneys.

William Baurys, Nanticoke, read a paper on "Traumatic Glomerulonephritis." He said that this refers to that condition following a wound of the kidney, a violent concussion, or injury to the body. The relationship between nephritis and injury has not yet been established. Textbook authorities give trauma as an etiologic factor. An explanation is that the glomeruli filter out toxic products in the blood and if there is injury to them, filtration is hindered. If the blow is not severe repair may go on. Symptoms may occur at any time between 2 weeks and 2 months following an injury. When one kidney is injured the other one assumes the work of the two and later that one will give out. The renal pathology is no different from any other glomerulonephritis. Traumatic conditions are simple concussion of the kidney; fibrous capsule injury; parenchymal injury; tears of the kidney; crushing of the kidney; injury to the pelvis and ureter. With the last 3 there is always hemorrhage. Treatment consists in the usual régime of Bright's disease. Function of the kidney is determined.

CASE REPORT.—Male, age 26, a coal miner, negative family and past history, and had never lost a day because of illness. Never had a urinalysis done. On Jan. 13, was injured by a fall of rock in the mine; was in the hospital for 11 days. Received treatment for contusion. After working 2 weeks, his legs became edematous and he complained of weakness. Urea nitrogen was increased and albumin and red cells were present. Ophthalmoscopic examination showed pallid disks. Blood pressure was 140/80. Blood Wassermann test was negative. Bleeding was seen from both ureters and the dye was passed in the normal 8 minute time. Nocturia and dyspnea were present. In 6 weeks edema disappeared and the patient was discharged.

To 1911 there were only 39 cases reported in the literature, but since then there have been many more.

In discussion, Robert R. Janjigian asked how one would know that the patient did not have kidney disturbance if no urinalysis had been made previously. How would one know that the man did not have a decompensated heart which caused the edema and dyspnea? Harry A. Smith said he had seen many cases of ruptured kidney and none returned with symptoms like this one. He had never seen a case of nephritis resulting from an injury to the kidney. Alfred W. Grover said he had seen a case of appendicitis which was traumatic in origin and thought there could be cases of nephritis also from trauma. In conclusion, Dr. Baurys said he was not trying to draw conclusions by one case only. Dyspnea is one symptom of glomerulonephritis. It was unfortunate that a urinalysis had never been done but the man had never been ill.

MARJORIE E. REED, *Reporter*.

LUZERNE (HAZLETON BRANCH)— OCTOBER

The meeting of the Hazleton Branch of the Luzerne County Medical Society was held in the Corrigan Maternity Hospital, Oct. 11. As George A. Ulrich, associate professor of obstetrics, in Jefferson Medical College, the scheduled speaker, was unable to attend, John J. Corrigan graciously agreed to talk in Dr. Ulrich's stead on "The Management of Normal Delivery, Including Care of Mother and Child." Dr. Corrigan stressed the well-known statement that the maternal and infant mortality in obstetrics is higher in the United States than in any other part of the world. While prenatal care has been recommended as an aid in reducing this mortality, it should also be stated that

no physician should be engaged in an obstetrical case unless he thoroughly knows, and is equipped and eager to carry out the various items included in prenatal care. These are: Complete physical examination, including blood pressure determinations and urinalyses, and special attention to the organs of elimination; dental consultation and treatment if indicated; recording of data fully and regularly; and insistence upon regularity of monthly and later biweekly visits.

As to the management of labor: If called at the onset of labor, make a preliminary examination. He has no regrets for always doing vaginal examinations and does not practice rectal examinations as a routine measure. Analgesia will be needed in many cases of labor. Sodium amylal has given good results, but 6 or 9 grains' dosage is required rather than the 3 grain dosage advised by the manufacturer. It is best not to use it unless the patient is in a hospital or under the observation of a competent nurse, because of the excitation sometimes produced.

Gwathmey's synergistic analgesia has its good points, but idiosyncrasy to quinine must be remembered. Dr. Cochrane favors conservatism, and the use of morphine and magnesium sulphate in the early stages of labor, using small amounts of ether and chloroform as needed in the second stage. Pituitrin may be used cautiously in the second stage. The big disadvantage of pituitrin has been the tetanic spasms it may cause. These can be prevented if only 25 per cent of the usual dosage is given; then smooth rhythmic uterine contractions should result.

The management of the second stage of labor requires thorough knowledge of the normal mechanism. Only in this way can the principles of arrest be understood and properly diagnosed. If the normal mechanism has not been followed and recognized, forceps will be applied blindly, and attempts to correct abnormalities will be done with very grave danger.

In the third stage, use pituitrin early, before the placenta is delivered. Repair of lacerations also is done at this time. Credé's is the preferable method of delivering the afterbirth.

Treatment of asphyxia of the newborn should be governed by the type of asphyxia, i.e., whether *pallida* or *livida*. If the former, intracranial hemorrhage suggests itself, and lowering of the head is contraindicated. Alpha-lobeline, rest, and carbon dioxide inhalations are used. In asphyxia livida, cold water splashes and spanking may be added, but shaking the baby, and lifting it by the heels are dangerous procedures in either case.

Postnatal examinations of the mother, 4 to 6 weeks after discharge, are advisable. The relationship of lacerations of the cervix to cancer is unquestioned. These examinations and the opportunity they afford for treatment with the cautery should no more be neglected than the prenatal care.

In discussion, David A. Johnston, State Hospital, said they have frequently had interns who were anxious to use 12 or 15 grains of amylal for analgesia. They have been allowed to try this, but because of the marked excitement and irrational symptoms produced by the drug, Dr. Gaughan and he had discontinued its use. John R. Dyson doubted the statement made that most cases of cancer of the cervix are associated with irritation or trauma. Since many cases of cervical carcinoma in virgins can be brought to mind, he should like to hear some statistics on this point. Though cases of cancer in multipara must be in the great majority, we should remember that there are many more women who have borne children than women who have not. Joseph C. Kochczynski stated that in addition to pituitrin, a newer

drug is now available, pitussin, which has the blood pressure raising element removed, and is therefore useful in the presence of hypertension.

In conclusion, J. J. Corrigan said he did not mean to convey the impression that lacerations are the sole cause of cancer, since its occurrence in virgins is well recognized. The belief that cancer can often be prevented by curative treatment of lacerations is being taught by the cancer research committees; however, he has no statistics at hand regarding the relative incidence of cancer of the cervix in multipara and virgins.

JOHN M. DYSON, *Reporter.*

LYCOMING—SEPTEMBER-OCTOBER

The meeting was held at 1:30 p. m., Sept. 8, with George Schneider in the chair. An address on "Hoarseness," illustrated with lantern slides, was given by Chevalier Lawrence Jackson, of Temple University Medical School.

Among the many causes for hoarseness he emphasized malignancy, tuberculosis and syphilis in adults; diphtheria, papilloma, *etc.*, in children. To study a case of hoarseness completely involves the following: Complete history; mirror laryngoscopy; roentgen-ray studies of chest for tuberculosis and lateral views of the neck, including the larynx, for edema of the glottis and blurring of the laryngeal ventricle; complete physical examination; Wassermann test; sputum examination, if any; direct laryngoscopy; and biopsy, if necessary. Lantern demonstration showed typical mirror views of the larynx. Among these were benign, pedunculated papilloma; malignancy; cancer beneath the vocal cord, in the so-called silent area, projecting outward beneath the cord but not showing visible erosion of the cord. Many growths can have extensive subglottic involvement with only slight hoarseness. These may extend down into the trachea from above or up into the larynx from below; ulceration in the posterior portions of the vocal cords. These are more apt to be tuberculous. There is such a thing as contact ulcer which is benign and nonspecific; paralysis of a vocal cord with contact ulcer; contact ulcers with fungation; and paralysis of the vocal cords. He emphasized the difference between paralysis and fixation. In true paralysis the left cord is most commonly involved because of the longer recurrent laryngeal nerve on that side. Causes of left cord paralysis are aneurism of the aorta and hypertrophy of the left auricle of the heart. In the latter condition the nerve is pinched between the left bronchus and the aorta owing to the pressure of the enlarged left auricle. Involvement of the right recurrent laryngeal nerve is often due to carcinoma of the esophagus. Involvement of either nerve may be central in origin, as in cases of metastatic cerebral malignancy. In discussing carcinoma of the larynx a slide was shown of a pedunculated tumor of the larynx which moved up and down with respiration causing partial obstruction. Biopsy proved it to be malignant.

Tuberculous laryngitis is extremely rare without tuberculosis in the chest. It must be distinguished from cancer by biopsy. Carcinoma of the larynx should be treated early, as it yields one of the highest percentages of good results in the treatment of carcinoma if begun early; as much as 80 to 90 per cent 5-year cures. It is treated by removal of the cord and lesion through the operation of laryngeal fissure. This operation is especially good for those lesions of the posterior commissure. In the anterior commissure the results are not so good. The more extensive involvements require

laryngectomy. If inoperable deep roentgen-ray and radium therapy are more or less palliative.

Any patient with hoarseness lasting more than two weeks should be studied to see if it is more than just chronic laryngitis.

In discussion, Harold L. Tonkin emphasized early diagnosis and discussed hoarseness as a symptom of heart disease. Aortic aneurism is only an exceptional cause of hoarseness. The transverse and descending aorta must be the part to give symptoms rather than signs. He described a case in which mitral stenosis caused hoarseness through enlargement of the left auricle. John P. Harley then stated that he had sent Chevalier Jackson, the first case of benign tumor of the larynx from Williamsport, approximately 15 years ago, the patient being alive and well today.

Guy Milnor, originally from this section, but who is now practicing abdominal and gynecologic surgery in Honolulu, gave a few of his experiences in that city. Tuberculosis and leprosy are major problems of the island in spite of its equable climate. They have between 1000 and 1500 lepers. A special place has been set aside as a leper colony. These lepers have their own places of amusement, radios, theaters, churches, *etc.* Sterilization laws are beginning to make their appearance. At present as soon as a child is born, the next day it is taken away from the mother and placed in a Catholic institution until age 16. None so handled have contracted leprosy. Those remaining 2 or 3 days with the mother are much more apt to contract leprosy.

The October meeting was held, Oct. 14, at 1:30 p. m., with Warren N. Shuman, vice president, in the chair.

Because the guest speaker, John J. Moorehead, of New York, was unable to be present, the program committee is to be congratulated on turning out a home talent program of the caliber presented, at the last minute.

Lloyd E. Wurster, local roentgenologist, gave a talk on the roentgen-ray treatment of malignancy, illustrating on the blackboard the method of reaching deep-seated lesions and keeping them saturated without endangering the skin. He presented a case of inoperable breast carcinoma in a man with pulmonary involvement which has been brought under control by radiation.

Louis A. Krimm presented a case of extensive carbuncle of the back of the neck in a diabetic. The patient had been treated several years ago and had made a very good response, to the extent that the blood sugar reached normal limits and was apparently remaining there on diabetic management, until the present illness. With the onset of the carbuncle the blood sugar remained high for a while in spite of insulin and dietary management. The carbuncle was excised in the usual fashion, but continued to spread until it reached the mastoid and side of the neck on both sides, and to the upper dorsal region and occiput posteriorly. Finally, after three extensive dissections, a large area with healthy granulation is present and the condition seems arrested.

Leo M. Knauber presented a case of massive osteomyelitis of the femur in a boy, which was complicated by pathologic fracture of the lower end.

Merl G. Colvin gave a talk on bacteriophage. He has devoted 2 years of postgraduate study to this subject. In brief, his experience in the living subject has not been as brilliant as the results obtained in the test tube. He explained this on the basis that the bacteriophage used locally does not reach the organisms imbedded in the wall of the abscess cavity. Used sub-

cutaneously it may have properties similar to vaccines. There may be possibilities in this line of treatment, but as yet not enough to warrant the claims of commercialists.

Clarence E. Shaw discussed a case of a patient with right lower lobe pneumonia who had been sent to the hospital as acute appendicitis, but in whom it had been impossible to date to eliminate the possibility of the presence of 2 lesions at the same time.

Benjamin H. Hamner talked on "Pemphigus," and a case in the hospital at the present time was presented. "Lupus Erythematosus" was briefly discussed by Stuart B. Gibson and a case presented.

Frederic C. Leclmer gave a talk on the sedimentation test, illustrating the equipment for making the test and showing many charts illustrating the result in various conditions. He stated in part that sedimentation roughly follows fever and leukocytosis except in certain allergic patients, in whom the response may be far under the severity of the infection. Among the conditions mentioned were the acute infections, pelvic diseases in which infection should be distinguished from other conditions. In this connection he stated that a pelvic inflammation requiring operation is best left alone wherever possible until the sedimentation test is normal. The chronic arthritides can be grouped very often by this test into the infectious and noninfectious types. Acute rheumatic fever cases should remain at rest in bed until the sedimentation rate is normal, irrespective of the temperature. Its value in tuberculosis was also discussed.

George S. Klump gave a brief review of the newer advances in obstetrics. He commented on the Fay-Arnold treatment of eclampsia, stating that his results are not as brilliant as those of Fay and Arnold, but that in his experience much benefit has been derived from dehydrating measures as set forth by the authors of the plan. In abortion cases the policy is more and more away from instrumentation. The older method of expressing the placenta was criticized in that it often has been used too roughly, with consequent bruising of the uterus, such hematomata predisposing to infection.

LARUE M. HOFFMAN, *Reporter.*

MIFFLIN—SEPTEMBER

The meeting of the Mifflin County Society was held Sept. 7 at the Lewistown Hospital, President Percy E. Whiffen presiding.

Charles J. Stambaugh, of Reedsville, read a paper on the "Value of Serum Treatment in Pneumonia." The paper detailed typing and preparation of the various sera. Type I is more specific than any of the other types and is best used in connection with institutional care, rather than in private practice.

The work of sera in pneumonia is still in its infancy, and much research is being done on it at the present time. Great things have not as yet come from it, and it does not appear to be as specific and efficacious as does sera of such diseases as diphtheria or erysipelas, in which the organism itself can be isolated and cultured. Pneumonia at present has too many types and generations to permit accuracy in serum production.

A. REID LEOPOLD, *Reporter.*

MONTGOMERY—SEPTEMBER

The meeting was held at the State Hospital, Norristown, Sept. 6; attendance was 45 members and 7 visitors.

Chevalier Jackson, professor of bronchoscopy, Temple University Medical School, spoke on "Cancer of the Larynx." Chevalier L. Jackson, clinical professor of bronchoscopy, Temple University Medical School, discussed "Bronchoscopy in the Diagnosis of Cancer of the Bronchus." He said in part: Cancer is the greatest problem in medicine today. In cancer of the larynx, adults are affected, but not children. Men are affected 6 times as often as women. Irritation is often an exciting cause, also senile changes in epithelium, and frequently tobacco. Vocal abuse was held to be a cause, and giving up the use of the voice is one of the hardest things a patient is called upon to do in the cure. Symptoms are hoarseness and dyspnea, confirmed by biopsy. Hoarseness lasting over 2 or 3 weeks may be caused by carcinoma. To rule out cancer, the laryngologist must see the interior of the whole larynx, including the anterior commissure. Cancer of the cords may be cured in 82 per cent of cases in the first year. Extrinsic cancer is hopeless. For cancer of the cord the operation is laryngofissure; if it is beyond the cord, laryngectomy.

WALLACE W. DILL, *Reporter.*

NORTHAMPTON—SEPTEMBER

Sept. 7, 1933

A special meeting was held Sept. 7, President William A. Finady in the chair, to discuss public relations and public policy items.

Harvey O. Rohrbach, chairman of the Public Relations Committee, submitted a report of his subcommittees as follows:

1. Victor S. Messinger, reporting for the Committee on Payment of Fees to physicians treating ward compensation cases, stated that he was ready to turn his data over to a special Easton Hospital committee working with the Board of Trustees of the Easton Hospital.

2. David H. Keller reported that his committee had met with the County Commissioners concerning a rumor that a county hospital of 200 beds was to be built. Dr. Keller reported that the rumor was unfounded.

3. Contract Practice. After considerable discussion it was moved and passed to adopt the recommendation of the Public Relations Committee concerning contract practice as brought out by the recent ruling of the American Medical Association, namely, that at the expiration of 1933 nonpermissible contracts, no member of the Northampton County Medical Society shall renew said contract under penalty of suspension from the County Society.

Then followed a long discussion and explanation of the County Society's attitude toward Medical Aid, Inc. A tentative ruling had been obtained from Edgar S. Buyers, chairman of the Board of Trustees of The Medical Society of the State of Pennsylvania. In view of this ruling and the apparent unethical aspect of the whole plan plus the fact that it would be exceedingly detrimental to the physician and the public to place a third party between the patient and doctor the following resolution was unanimously adopted:

Resolved, That the action of the Public Relations Committee in opposing the granting of a charter to Medical Aid, Inc., under the laws of the Commonwealth of Pennsylvania be approved, ratified, and confirmed and, be it further

Resolved, That the Committee on Public Relations be instructed to continue its opposition to the granting of the charter and that it be and is hereby empowered to

act for the society and in its name in the furtherance of activity, and, be it further

Resolved, That in accordance with the ruling of Dr. Buyers any member of this society who agrees to treat patients who are members of Medical Aid, Inc., and who agrees to look to Medical Aid, Inc., for compensation be suspended from membership in this society and that his name and the action of this society be certified to The Medical Society of the State of Pennsylvania for appropriate action.

Medical Aid, Inc., first came to the attention of the Public Relations Committee through newspaper publicity and circulars passed from door to door soliciting membership in Medical Aid, Inc. The movement is closely akin to group health insurance and was originated without medical advice or counsel and with apparently very little conception in the minds of the originators of either the medical problems involved or professional ethics. The plan is briefly as follows:

The laity are solicited to join the organization with dues at \$1.00 a month. An entrance fee of \$1.00 brings the total cost per year to \$13.00 for the first year and \$12.00 for each succeeding year provided that the membership is continuous. For additional membership in the same family and under the same roof the fee is \$0.50 a month. The organization proposes to place 90 per cent of the money collected into a fund to pay medical bills. The remaining 10 per cent is to be used for collectors' salaries and overhead expense. They propose to obtain a State charter, allow the patient free choice of physicians, pay all medical bills contracted in the home or the doctor's office. It is obvious from this that hospital charges and surgeon's fees are not included.

The Public Relations Committee met with the laymen sponsoring the movement and their attorney in the office of Mr. E. J. Fox, Jr., of Easton, attorney for the Committee. The above mentioned plan was unfolded and considerable discussion followed. It was brought to light that in the event of an epidemic in the near future, the project would probably fail because of lack of funds. It was also stated that specialists' fees would be paid if they were required; that electrocoagulation of tonsils, roentgen-ray studies, etc., would be chargeable to the organization if performed in the doctor's office or the patient's home; that there was to be no limit to the number of calls which a physician might charge to a particular patient either in the office or in the home; that obstetrical fees were not to exceed \$25.00, but this did not include pre- and postnatal visits; that there was to be no set schedule of rates, each physician charging his usual fee.

It will appear from the above that those sponsoring the movement have not given sufficient thought or sought the proper medical guidance for their project. It is perfectly obvious to the medical mind that not only would there be no profit in the scheme but that it would die aborning. The Committee, fully cognizant of these facts, did its best to put this idea across to the laymen present. The ethics of the problem was then discussed and it was decided that it was extremely doubtful whether or not the regular medical profession of the county would be allowed to participate in such practice without running afoul of the contract practice rulings of the American Medical Association.

Sept. 15

The regular meeting of the Society was held at St. Luke's Hospital, Friday, Sept. 15, 1933, at 11 a. m. A series of films prepared under the supervision of Alan

Kanavel, of Chicago, was shown. The subject was "Infections of the Hand and Their Treatment." Dr. Kanavel was unable to be present.

Harvey O. Rohrbach and Arthur B. Hamilton presented a clinic on chorea; the efficacy of the fever therapy was demonstrated by Dr. Rohrbach.

MICHAEL FRESOLI, *Reporter*.

WARREN—SEPTEMBER-OCTOBER

The meeting was held at the Warren General Hospital, Sept. 18, with 25 members present.

J. Theodore Valone reported a case of arthritis in which the source of infection could not be ascertained and Wassermann reactions were negative with several tests until a complicating iritis clearing up under "mixed treatment" led to another test when both blood and spinal fluid were found to be decidedly positive. It was not possible to obtain a history that would indicate that the syphilitic attack was superimposed on the infectious arthritis.

William M. Cashman showed specimens, liver and intestine, with carcinoma, the clinical symptoms of which were jaundice, ascites, and severe lumbar pain. The liver weighed 10 pounds. The primary lesion was in the descending colon.

Mr. McCartney, representing Parke, Davis & Company, explained the manufacture and recent research with biologic products with special reference to hormones from corpus luteum and anterior pituitary gland. The preparation of antuitrin S and theelin was explained. The high cost of some of these preparations was shown to be due to the great amount of raw material required to obtain a concentrated product. The speaker believed that the materia medica of the future would be limited to endocrines and antitoxins.

The Board of Directors of the hospital in coöperation with the nursing staff acted as hosts for the supper which followed the meeting.

The stated meeting was held Oct. 16. A. H. Aaron, of the University of Buffalo Medical school, spoke on the "Treatment of Gastric Disease." He dwelt on the physiology of the stomach, showed how its tone is affected by action of the vagus and how distress is so often due to extra-gastric cause.

The treatment of ulcer whose cause is still unknown, can be arranged under three heads: Diet, alkalies, and belladonna. As to diet, frequent feeding of proteins and fat to consume excess acid, and the restriction of irritating foods, spices, raw vegetables, and raw fruit. Alkalies, calcium carbonate by preference in 15 grain doses, should be given shortly after eating. "Belladonna is the digitalis of the belly." It should be used in sufficient dosage to cause physiologic action, mydriasis, and dryness of the mouth, so as to block the vagus reflex; and bismuth in teaspoonful doses, 15 minutes before meals, to coat and protect the mucosa.

Dr. Aaron gave many practical points in the treatment of hemorrhage which seldom kills and can be handled medically by rest, morphine, transfusion or intramuscular injections of blood to increase agglutination. Nutrient enemata are not advised as the rectum does not absorb food products.

Chronic gastritis is usually secondary to other trouble, and is relieved by a bland diet, dilute hydrochloric acid, and bismuth. Pepsin is always present but acid content is low. In pernicious anemia there may be absence of ferment and then glycerite of pepsin and hydrochloric acid is of value. He spoke of preparation of the pa-

tient for gallbladder operations, especially in the fat elderly persons who give a high mortality because there is usually a hepatitis or a diseased myocardium. These patients need much fluid, and sugar and as little surgery as possible.

Thirty members attended the meeting, an extra large percentage. William M. Cashman and Hamblen C. Eaton reported for the recent State meeting.

The recent legislation for the payment of medical services for the indigent was discussed and a committee appointed to act when the measure is put into effect.

Dr. Yerg who has just opened an office in Warren was elected to membership. Hosts for the dinner which followed were Otis S. Brown, Frank M. Buckingham, LeRoy E. Chapman, and William M. Cashman.

MICHAEL V. BALL, *Reporter*.

WYOMING—OCTOBER

The quarterly meeting was held, Oct. 11, at Tunkhannock, President W. B. Beaumont in the chair.

Van C. Decker invited the members to attend a series of lectures on allergy given by Richard A. Kern, of the University of Pennsylvania Hospital staff, at the Chamber of Commerce Building in Scranton, one evening a week.

The society accepted an invitation of Jonathan M. Wainwright, of Scranton, to attend a clinic at the Moses Taylor Hospital, Oct. 17, followed by supper at Dr. Wainwright's home.

William W. Lazarus commented on the results found in the examination of 87 children of the families on relief, stating that in this county at least, only 13 per cent of the underweight was directly attributable to malnutrition alone, the remainder being traceable to some demonstrable physical defect, such as diseased teeth or tonsils.

It was decided to have published in the local papers a vote of thanks to the women who had assisted so materially in the carrying out of the program of examining the children of indigent parents.

Ten of the 13 members were present.

ARTHUR B. DAVENPORT, *Reporter*.

YORK—SEPTEMBER-OCTOBER

The meeting was held Sept. 16, President Francis R. Wise in the chair.

William D. Stroud, professor of cardiology, Graduate School of Medicine, University of Pennsylvania, Philadelphia, spoke on "Heart Disease with a Special Reference to Coronary Disease, Angina Pectoris, Their Diagnoses and Treatment."

It is difficult to prognose coronary disease patients; both Sir James Mackenzie and Sir Thomas Lewis suffered occlusion of the coronaries and both lived years after the first attack; we must be more optimistic regarding the prognosis; mortality of cardiovascular disease has doubled in the past 2 years.

Five common causes of heart disease are: Congenital; rheumatic; syphilitic; thyroid, and degenerative.

Diphtheria and rheumatic fever cause cardiovascular disease more commonly than pneumonia, influenza, pertussis, etc.; tonsillectomy in rheumatic-fever families still indicated.

Cardiovascular syphilis can be prevented in contradistinction to rheumatic heart disease.

There may be temporary anoxemia of heart muscle by an occlusion.

Coronary disease can occur in children, 10 per cent under age 40 in Connor's and Holt's series; 25 per cent occur between 55 and 60.

Prevention: Coronary disease runs in families; take children of such families under care and teach regulated living, relaxation, vacations, and repeated careful examinations. True precordial pain is usually a neurosis; substernal pain suggests coronary disease. Mural thrombi occur quite frequently. Occlusion of vessel supplying anterior part of heart presents a prognosis worse than that of occlusion supplying the posterior part of heart.

The speaker dwelt on the "spasmogenic aptitude" of Houston. The hypertension in the spasmogenic type of person requires a readjustment of the life he leads; strenuous exercise alone does not cause heart disease, but strenuous exercise plus "spasmogenic aptitude" type causes cardiovascular accidents.

In occlusion, blood pressure does not always drop at once but may within 2 to 4 days after attack.

This disease develops in persons who suffer from frequent emotional upsets; infections; improper diet; poor elimination; excess nicotine, coffee, tea, etc.; obesity or diabetes; excessive, prolonged physical effort (in persons with a parental history of heart disease); long hours of nervous tension with inadequate relaxation and vacation.

The speaker distinguished angina from infarct; he laid stress on occlusion without pain and of the importance of the electrocardiogram in heart disease with a short explanation of the waves of the electrocardiogram, including lead 4 of Wolferth.

Treatment: Regulate lives of patients and rest with certain medicines or drugs; minimize daily activities and the tension and irritative factors in such patients' lives. Phenobarbital is especially valuable in small doses; other sedatives may be useful. Coronary dilators are, at times, efficacious, especially in rheumatic-heart failure cases, combined with digitalis. The various other common vascular dilators were discussed.

In closing, the speaker stated one should be more optimistic in prognosis and made a special plea for the regulation of the lives of those suffering from such disease.

In discussion, Lawton M. Hartman, York, asked the value of systematic, graduated exercises after the method of Connors with the idea in mind of favoring an anastomosis in the coronary system. Charles Rea, York, asked why syphilitic heart disease causes occlusion more frequently than does rheumatic heart disease. Harry M. Read, York, asked if it was wise for a patient to remain under weight or wiser to put on weight.

Dr. Stroud answered that graduated exercise, hydrotherapy and physical therapy can be carried out by an enthusiastic patient, some need it and some do not; the foreign resorts get results and at present Saratoga Springs under the direction of Dr. Carl Comstock, is an excellent spa for the treatment of such patients. Occlusion is less in rheumatic disease because it occurs more commonly in childhood, and there is less atheroma than in syphilis. He advised patients be kept at normal weight or less rather than allow obesity.

Stated meeting held Oct. 21, President Francis R. Wise, in the chair. Charles M. Byrnes, associate professor of neurology at Johns Hopkins University, Baltimore, gave an address on the "Treatment of Multiple Sclerosis."

He stated that if the neuron becomes diseased or destroyed, the nerve fiber which it supplies degenerates; if the posterior cord is diseased, the posterior column degenerates. Carswell of London made the first drawing of this disease; characterized by disseminated patches of degeneration through the myelin of brain stem; clean cut area in the cord degenerates; attack is distinct and remains where it starts; optic chiasm is a site of predilection causing retrobulbar neuritis; round-cell infiltration of chiasm; disintegrated myelin in patches if stained by Levaditi's method; an overgrowth of neuroglial tissue in demyelinated areas which also contain axis cylinders. This describes the end result of multiple sclerosis.

Lantern slides of trophic ulcer of the leg associated with this disease were shown.

Dawson says it is an inflammatory disease; latest concept is that it is both inflammatory and infectious, but whether a specific microorganism or an exo- or endotoxin is not settled; clinically, the onset suggests an inflammatory basis; also, it is impossible to distinguish from encephalitis, poliomyelitis, and syphilis.

The disease may be due to a filtrable virus, specific organism or by invasion of filtrable viruses and characterized by remissions and exacerbations; it might be a person who has previously been in contact with acute poliomyelitis; probably a specific organism may be found for all these degenerative cord lesions.

Treatment.—General: Rest, even in bed, preferably in a hospital, as there are psychic effects to be desired in nervous persons. Second, diet: A superabundance of fat, especially. Wier Mitchell rest cure, but avoid inactivity for too long; avoid hot or cold baths; prevent intercurrent infections; patients with multiple sclerosis should not marry. All surgical procedures are harmful except where spasticity remains. Toxins may be combated by quinine which may inhibit the lipase of myelin; liver is used, if the condition is metabolic; calcium and lead have been used. Transfusion and internal eliminants may be used as are vasodilators; convalescent serum injected intradurally; hemolytic serum. Most widely accepted treatment is some form of protein or fever-producing therapy such as typhoid vaccine; intradural mercury and arsenic or salvarsanized serum, leaning toward antisyphilitic therapy. Physical therapy, roentgen ray, deep, along the spine; ionization of mercury and arsenic.

Rest is generally sufficient; after recovery, intravenous injections of sodium salicylate or arsenicals, with caution. In paralysis, rest, sodium salicylate, and intradural treatment. During remission, some form of therapy should be continued; vaccine should be given in added doses just as highest febrile reaction is attained. If spastic or ataxic, re-education will do much.

In discussion: Harris R. Lechrone, York, asked whether malarial infection was useful. William E. Wolff, Abbotstown, asked what therapy is used for spastic paralysis of lower extremities. Milton H. Cohen, York, asked what relation trauma had to multiple sclerosis in compensation cases. J. Ferdinand Klinedinst, York, asked whether retrobulbar neuritis was a descending process or whether it was due to a toxin.

Dr. Byrnes, in closing the discussion, stated that malaria has been used but has not been found so effective as typhoid vaccine. Injections intradural, sodium bromide, if there is marked spasticity; or even use rhizotomy. Trauma can not cause multiple sclerosis; retrobulbar neuritis is due to toxin or virus, therefore may be ascending or descending.

H. MALCOLM READ, *Reporter*.

SECOND COUNCILOR DISTRICT MEETING

The annual meeting and luncheon of the Second Councilor District was held, Sept. 14, at the Tredeyffrin Country Club, Paoli. Approximately 125 doctors and 50 members of the auxiliary were present.

The morning session began at 11:30 with District Councilor Edgar S. Buyers presiding.

Irvin H. Hartman, censor for Berks County, reported a present membership of 176; last year it was 171. One member, Howard S. Reeser, in practice for 56 years, had died. Monthly scientific sessions are held with the exception of July and August. The June meeting is held at the Wernersville State Hospital, with the program arranged by Ralph L. Hill, superintendent. There is an annual banquet in January for members only; and an annual summer outing in July for members and guests. During the past year, one public health meeting was held on Public Health Day in October. The society also holds quarterly evening business meetings at which are discussed such problems as belong to the economic side of the practice of medicine. A bulletin, averaging 24 pages an issue, is published every month, except August. Three public health meetings for the study of cancer were held during the year. The society has an active Public Relations Committee which sponsors a yearly exhibit at the Berks County Fair and which is arranging the second annual campaign to immunize against diphtheria without cost, all children of preschool age. There is no regularly appointed committee on Medical Economics, which work is done by the Committees on Public Relations and on Public Policy and Legislation.

William G. Moyer, censor for Bucks County, reported a present membership of 66, which is the same as a year ago. During the year the society lost 2 members for nonpayment of dues, and 3 by death, one of whom had a continuous membership of 48 years. Six regular meetings are scheduled in April, May, June, September, October, and November. Two special meetings were held; one to organize the State Emergency Child Health Program for the county, and the other to organize a Diphtheria Prevention Program to immunize all children between 6 months and 10 years of age. The society had one social meeting, the proceeds of which were given to the State Benevolence Fund. A monthly bulletin is published.

U. Grant Gifford, censor for Chester County, reported a present membership of 88. The society lost 4 members during the past year; 1 by death, and 3 by resignation. Seven new members were admitted. Twelve meetings were held during the year; 10 scientific and 2 business. A social hour at luncheon is a feature of the program at each meeting. Seven meetings were held at the Chester County Hospital; 1 at the Coatesville Hospital; 1 at the Coatesville U. S. Veterans' Hospital; 1 at the Phoenixville Hospital; 1 at the Rush Hospital at Malvern; and 1 at the Warren Inn, at which the members were the guests of Clarence S. Kurtz, of Malvern. A bulletin is published. There is a Committee on Economics and one on Public Relations.

J. Clinton Starbuck, censor for Delaware County, reported a present membership of 140, a gain of 19 over 1932. Three members were lost by death. Ten regular meetings were held during the year, and 1 special meeting was called to consider the subject of restoring to their former level the electrical rates charged doctors. There were held 7 scientific, 2 social, and 1 combined meeting of physicians, pharmacists, and dentists. Most meetings have been held at the Chester Hospital. Other locations have been the Chester Club, Cobb's Greek

Golf Club, Springhaven Country Club, and the Y. W. C. A. There is a bulletin issued monthly except July and August. Through the action of the Public Relations Committee and with the coöperation of the county's civic, welfare agencies, and the Tuberculosis Association, Joseph Mountain, representing the U. S. Public Health Service, was requested to make a complete health survey of Delaware County for the purpose of obtaining accurate information on all matters pertaining to public health; to better to provide for the present and future health; to create and formulate effective methods of preventing and combating epidemics of disease; to obtain the maximum coördination and efficiency on the part of individuals and agencies actively interested in public health, official and voluntary; and to prevent and correct overlapping and waste of individual and organized effort. The Pennsylvania Tuberculosis Society and the American Social Hygiene Association assisted in the survey. Their reports will soon be ready for distribution.

John T. MacDonald, censor for Montgomery County, reported a present membership of 172, with 5 deaths during the year. There were 10 scientific, 2 social, and 1 public meeting held during the year, all at the Norristown State Hospital. A bulletin is issued monthly. There is also an active Committee on Public Relations and one on Medical Economics.

Arthur B. Fleming, secretary, Schuylkill County (for James A. Lessig, censor), reported a present membership of 143, a net loss of 10. There were lost by death 2 members, one of them, William J. Scanlon, serving as president of the society; the other, James P. Roth, superintendent of the Locust Mountain Hospital, both of Shenandoah. The society has done little this year except mark time. The scheduled monthly meetings have been well attended. One of them was a combined meeting with dentists and druggists; another, a strictly business one as per the frequent suggestion of State President Falkowsky, of Scranton. The Constitution and By-laws have been revised. The Anti-Tuberculosis Society had the coöperation of the society on May Health Day, and a number of the members, with the secretary, have made addresses in different sections of the county on the subject of health and preventive medicine. They also coöperated with the State Society in having articles on health published by various newspapers throughout the county from time to time.

Councilor Buyers made favorable comment on the following: The separation of business meetings from the scientific sessions in Berks County; and the joint meeting with pharmacists and dentists, and the organization of a health survey in Delaware County. He also expressed satisfaction that only a few members were dropped from their societies for nonpayment of dues.

This year, the compilation of the history of the Chester County Medical Society was presented by William T. Sharpless, past president of the State Society, in the form of brief biographic sketches of the original membership, but because the allotted time was too limited, it was possible to give only part of the data collected. He especially alluded to the 4 pioneer physicians of Chester County, Drs. Darlington, Worthington, Thomas, and Hartman.

Donald Guthrie, president-elect of the State Society, Sayre, discussed briefly "Our Traditional Purposes." Dr. Guthrie said in part: We have passed through a trying year, but it is necessary that we keep before us that unselfish devotion which has characterized the profession in the past. We must also be sufficiently alert so that justice for our side will not be alienated. Though the

public has not been unfriendly, it has nevertheless been suspicious, and should be handled diplomatically. This means that the control of community attitude is up to the individual local physician. The activities of the county societies should be shared by all and not by the usual willing few. It is evident that medicine is emerging from many of its past difficulties, and that a goodly number of the injustices perpetrated against it have caused the profession to become alert in safeguarding the rights of the practitioner as well as the health of the public. During the depression the "M.D." seemed to become "The Forgotten Man." It is to be hoped that he will become "The Much Remembered Man" in the new deal.

During the luncheon, attended by the members of the Society and the auxiliary, testimonials were presented by the presiding officers of their respective county societies, to the following 24 physicians who have served 50 years or more in active practice.

Two doctors who were to have been honored on this occasion, but who passed away very recently, were mentioned. They were Howard S. Reeser, late of Reading, whose record had been 66 years, and Vincent P. Keeler, of Harleysville.

Montgomery County Medical Society: Herbert A. Arnold, Ardmore, 55 years; Harry M. Bunting, Norristown, 54 years; Howard Henry Drake, Norristown, 55 years; Ambrose C. Herman, Lansdale, 52 years (not present); Daniel W. Shelly, Ambler, 51 years; Warren B. Shaner, Pottstown, 51 years; John A. Roth, Red Hill, 57 years; Wentworth D. Vedder, Pottstown, 53 years; Walter Chrystie, Bryn Mawr, 53 years.

Chester County Medical Society: John G. Thomas, Manoa, 64 years; William R. Perdue, West Chester, 59 years (not present); Thomas S. Richmond, Guthrieville, 52 years (not present); Henry F. C. Heagy, Cochranville, 50 years; Shepherd A. Mullin, West Chester, 54 years.

Schuylkill County Medical Society: J. Spencer Calen, Shenandoah, 52 years; Charles W. Bankes, Middleport, 52 years; David Taggart, Frackville, 54 years (not present).

Delaware County Medical Society: Horace H. Darlington, Concordville, 54 years; Edward W. Bing, Chester, 56 years; Ellen Brown, Chester, 52 years.

Berks County Medical Society: John S. Borneman, Boyertown, 55 years; Charles G. Loose, Reading, 65 years (not present); Allison A. Stamm, Mohnton, 50 years.

Bucks County Medical Society: John B. Carrell, Hatboro, 57 years; John A. Fell, Doylestown, 59 years.

President Falkowsky said in part: It is a great satisfaction to see men practicing to a venerable age. They doubtless have lived through various social changes, but there is no question of the rapidity and importance of such changes in the last decade. We all realize that although medicine is what we call a basic science, we should not overlook the fact that it is also our means of livelihood. We should have a unanimity of opinion with the public, and this can best be accomplished if our local societies would interest themselves in modern health services, particularly if they are fortunate in having a lay executive secretary to advise them of professional and lay activities. The main point, however, in any such endeavor is coöperation. The prior reference to an oversupply of physicians is not serious; but more important is the dearth of the old-fashioned family doctor. As a suggestion, the restoration of the old preceptor system, to teach the younger

men service and coöperation with the community would be well worth while. The disease of overspecialization has been partially cured by the so-called depression which has forced many specialists into general practice. One of the postwar evils was the construction of many unnecessary hospitals, with the result that competition between them has become very keen. From the legislative standpoint, the study of at least 140 proposed bills involving medicine, with the passage of none, would indicate that our committee has been very active. This group is now engaged in a study of the present Compensation Laws, not only of Pennsylvania but of other states. It is interesting to note that 98 per cent of all accident cases are minor—the patient returning to duty within a fortnight. Any member of the profession should be competent to handle these cases. The 30-day limit has proved troublesome, particularly in mishaps involving broken bones, which takes longer than that period to heal. Another contention is the entrance of a third party, *i. e.*, the insurance company, run purely for profit. The fact remains, however, that the medical man is of greater importance than either the carrier or the legislative talent, and should be considered first in the framing of all such laws. There can, of course, be no general criticism of those companies who employ their own surgeons, provided they are competent, and not selected because of influence or other unethical reasons. In New York and New Jersey, physicians caring for those receiving temporary relief, which is sponsored by the R. F. C., are being paid by the Emergency Relief Board. This unfortunately is not the case in Pennsylvania, but is expected before very long. We have volunteered to coöperate in unifying the Poor Board Laws of the different counties in the State. This is being done with the idea of procuring for the medical man a fair deal. Remember that after all, quality of service to the public is all important, and we should do our part in helping to make life more livable.

On motion by John A. Farrell, Chester County, it was approved that the bond issue be favorably voted upon at the election to be held Nov. 7.

In the unavoidable absence of Harry E. Mock, of Chicago, Ill., Walter Estell Lee, Philadelphia, gave an illustrated talk on "Postoperative Pneumonia."

PEARL E. HACKMAN, *Reporter.*

ELEVENTH COUNCILOR DISTRICT MEETING

The Eleventh Councilor District meeting was held in August. Dinner was served at the Summit Hotel. Councilor Arthur E. Crow presided.

Two-minute reports were given by the District Censors. Charles H. Smith, reporting for Fayette County, stated that the Emergency Child Health Committee was very active. A number of the young women on the committee, associated with home economics, were holding various meetings at which the families on relief were instructed on diet and the preparation of relief orders. About 1000 children on relief had been at that time examined by Fayette County physicians.

Secretary Walter F. Donaldson, of the State Medical Society, gave a talk on the "New Deal for Practicing Physicians." He said in part: Medical leadership in the State is aided by that in each county. Both are essential and are now being accomplished satisfactorily. The secretary's office, in Pittsburgh, and the Pennsylvania JOURNAL's office, in Harrisburg, employ 3 full time employees. A layman secretary employed by one

or several counties is necessary to devote full time in establishing relationships between members of the Medical Society and anybody interested in any aspect of public health. The demonstration of medical leadership is now essential to establish definitely the medical profession under the New Deal. One day each year should be designated as Health Day, under the direct supervision of county leadership.

President-elect Donald Guthrie, of the State Medical Society, gave a short talk on "Our Traditional Purpose." He said in part: The demand for medical leadership, now at its peak, can most easily mould public opinion through the help of the medical auxiliary and the various public health committees. The physicians in each individual community should assume that leadership at the present time with little thought of remuneration. This will aid considerably in regulating legislation and guarding against public health. President-elect Guthrie pledged and asked whole-hearted support from each member of the medical profession during the coming year.

Edward J. McCague, Pittsburgh, read a paper on "Some Observations on the Bladder Manifestations of Renal Disease Dealing Chiefly with Renal Tuberculosis." He said in part: Renal tuberculosis is the cause of 5 per cent of all operations and 40 per cent of kidney operations. Similar to the pulmonary form, renal tuberculosis affects chiefly young individuals with considerable discomfort and frequency of urination and if there is bilateral involvement, eventually death. In a series of 846 cases of renal infection, there was painful micturition in 90 per cent, 108 cases were tuberculous and all but 3 of these developed frequency and painful urination. The general condition is usually good, making it very difficult for the physician to emphasize the importance of surgical intervention. Of these 108 cases, 28 were bilateral, making the patient hopelessly doomed. The kidney pole is usually first involved extending to the kidney pelvis with kidney destruction. It extends down the ureter to the bladder and usually within 1 to 3 years has involved the other kidney. There is no absolute proof that renal tuberculosis has healed. It is considered by many physicians as worse than malignancy.

William W. Briant, Jr., Department of Pediatrics, University of Pittsburgh School of Medicine, read a paper on "The Status of the Dick Test for Scarlet Fever," in which the technic of the test and the errors in interpretation were discussed in detail. The highest age incidence of positive readings (865) occurred at the fourth year with the general incidence of Dick positives between 35 and 40 per cent.

Dick states that in a large series of positive reactors, rendered negative by minimizing doses of toxin, 5 to 9 per cent are Dick positive in 2 to 3 years. A repetition of the minimizing course, consisting of weekly injections of 500, 2000, 8000, 25,000, and 80-100,000 units of Dick toxin, is then given. Ten per cent may be expected to react following each injection, usually with fever and vomiting.

Evidence has been offered to substantiate the fact that commercial Dick toxin has 2 active components—a heat labile and a heat stable component. The heat labile component is the specific toxin; the heat stable component is a nucleoprotein. It is believed that many of the discrepancies unexplained by many Dick tests will clear up when a pure heat labile toxin is used in testing, as the heat stable component may be allergenic fresh Dick toxin is essential.

Dr. Briant believes that the antitoxin should be used in all but the mildest cases. Contact cases are first isolated, Dick tested, and a throat culture taken. If the test is negative, the worries are over. If positive and

a hemolytic streptococcus is cultured the patient is isolated for 10 days. If scarlet fever develops, the antitoxin is administered with adequate warning of possible violent reactions.
RALPH L. COX, *Reporter*.

The Woman's Auxiliary to the Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

GREETINGS FROM THE STATE PRESIDENT

DEAR MEMBERS OF THE AUXILIARY:

You have honored me with the highest office it is in your power to give. I am eager, only, that I may be deserving of the confidence you have placed in me in like measure as those who have preceded me.

With the publication of this issue of the JOURNAL another Auxiliary year will have passed into history—a year which has made a record of which we are justly proud.

The State meeting held in Philadelphia, Oct. 2 to 5, with a registration of 441, was one of the most enjoyable ever held, with a delightful group of women, a program well planned and perfectly carried out, and Philadelphia Auxiliary again demonstrating her ability as a remarkably gracious hostess.

We contemplate no changes and we will endeavor to advance only along the lines already developed. An old political rallying cry was, "Now is the time for all good men to come to the aid of the party," and I am sure now is the time for the wife of every physician in Pennsylvania to identify herself with her County Auxiliary, as we follow the lead of our doctor husbands in carrying health messages to the public.

Let us inform ourselves how best we can do this and then KEEP GOING.

Sincerely yours,

FLORENCE (MRS. EDWARD) LYON, *President*.

COUNTY AUXILIARY REPORTS

Allegheny.—More than 100 women attended the first meeting for the season, held in the College Club of Pittsburgh, Tuesday, Sept. 26.

The informal seating arrangement provided an informal atmosphere that inspired friendliness.

Mrs. Howard A. Power presided.

Mrs. Augustus S. Kech, president of the State auxiliary, spoke on "The Doctor's Wife."

Janet Turner, the daughter of a physician, played violin solos.

A reception in honor of Mrs. Kech, Mrs. Power, and the officers of the auxiliary followed the meeting. Mrs. John F. McCullough and Mrs. Orr poured tea and mem-

bers of the Hospitality Committee served the refreshments.

Dauphin.—Regular meetings are held at the Academy of Medicine, unless otherwise noted. The Executive Committee met on the morning of Sept. 12 to make plans for the season.

The regular meeting, held on the afternoon of Sept. 12, at the home of Mrs. Harry H. Rhodes, Middletown, was addressed by Mrs. Augustus S. Kech, president of the State auxiliary. A social hour followed.

Erie.—The monthly meeting was in the form of a luncheon held at the Pussy Willow Tea Rooms, Oct. 9. Mrs. James D. Stark, county president, gave a report of the State convention. Following the business meeting, bridge was played.

Fayette.—The auxiliary started auspiciously on its ninth year and the members are formulating extensive plans to make this the best year ever. They feel the organization has an important place in the community and it seems to have filled a real need, especially in work for children. There is a growing recognition of the importance of protecting the health of children; therefore since its organization the auxiliary has taken this up as a major enterprise.

An outstanding feature of last year was the annual "Outing." More than 100 children, selected from the various charitable societies of the county, were given a day of joy, supervised by auxiliary members, nurses, and entertainers. Plenty of good nourishing food was supplied and milk was donated by a citizen.

Though this work is sadly handicapped through lack of funds, glasses are furnished to children with defective sight.

A public health meeting was held which was attended by several hundred persons; especially noticed were many teachers.

Meetings are held once a month, with instructive talks by prominent speakers, thereby valuable information on health is given.

Mrs. David E. Lowe, newly elected president, is now ready to give us a year of inspiration, with the help of all members.

Indiana.—The regular meeting was held at the College Inn Tea Room, Sept. 14, at 2 p. m. Following the business meeting, Miss Florence Wallace, a member of the executive board of the local welfare organization, spoke concerning the community chest.

Montgomery.—A meeting was held, Oct. 11, at the Nurses' Dormitory, with Mrs. J. Newton Hunsberger, president, in the chair. Routine business was discussed and the delegates to the State convention, Mrs. George Hartman and Mrs. J. K. Wood, made reports of the convention. More than half of the members attended

some of the sessions and two posters were included in the exhibit at the Bellevue-Stratford.

Several members attended the meeting of the Second Councilor District, held at the Paoli Country Club, and were interested in the reports made by neighbor auxiliaries and the address by Mrs. Wilmer Krusen.

On Sept. 21, President Albert R. Garner, of the medical society, and Mrs. Garner entertained the members of the auxiliary at luncheon at their country home, Deepwood Lodge.

At a recent meeting, Mrs. Donald M. Headings read a paper, "Medical Follies," and following vocal, violin, and piano solos, tea and cakes were served.

The meeting held on Nov. 1 consisted of a short business session, followed by a card party for the benefit of the Corinne Keen Freeman national memorial fund.

Northampton.—The October meeting was held Wednesday, Oct. 11, at the Pomfret Club, Easton, Mrs. Clayton P. Struthers and Mrs. Clarence D. Hummel hostesses. Following luncheon a short business meeting was held at which a report of the convention at Philadelphia was given by Mrs. J. Edward Brown, delegate. It was decided to send Mrs. W. Burrill Odenatt a vote of thanks for the hospitality shown the delegates to the State convention. Mrs. Gilbert Tillman, member of the State Executive Board, spoke concerning the convention.

The resignation of Mrs. Stephen Gabor was accepted with regret.

A lecture by Dr. Arthur C. Morgan, Philadelphia, was announced and the members of the auxiliary were urged to attend.

Westmoreland.—The regular meeting was held, Tuesday afternoon, Oct. 10, at the Nurses' Home of the Westmoreland Hospital, Greensburg. Twenty-four members were present. Reports of the State convention were given by the two representatives, Mrs. John S. Silvis and Mrs. H. Albert McMurray. Following the business meeting, the members played bridge.

Medical News

Marriages

MISS ARLINE THOMAS, Wilkes-Barre, to Dr. George J. Silewski, Nanticoke, June 22.

MISS EMMA MARTYN GEORGE, Philadelphia, to Dr. Francis D. W. Lukens, Bryn Mawr, Oct. 10.

MISS CATHERINE JONES, Glen Summit Springs, to Dr. Samuel T. Buckman, Nanticoke, Aug. 10.

MISS JANE MCILLHENNY HOUSTON, Carlisle, to Dr. William Raney Morgan, Jr., Ashland, April 15.

MISS ALICE ASHTON MCGLINN, daughter of Dr. and Mrs. John A. McGlinn, Wynnwood, to Mr. Alfred Rauch, Maplewood, N. J., Oct. 7.

Births

TO DR. AND MRS. DELMAR PALMER, Erie, a son, recently.

TO DR. AND MRS. FRANK J. THEUERKAUF, Erie, a daughter, recently.

TO DR. AND MRS. STANLEY M. MOYER, Dublin, a daughter, Sept. 21.

TO DR. AND MRS. JAMES J. O'CONNOR, Spangler, a daughter, Aug. 22.

TO DR. AND MRS. CLYDE R. FLORY, Sellersville, a son, Clyde Reuben, 2d, recently.

TO DR. AND MRS. RICHARD F. RICHIE, Harrisburg, a son, Richard Martin Richie, Sept. 14.

TO DR. AND MRS. BENJAMIN H. HAMNER, Williamsport, a son, Bengt Halvar Hamner, recently.

TO DR. AND MRS. FREDERICK B. LITTLE, Norristown, a son, Frederick B. Little, Jr., Sept. 27.

TO DR. AND MRS. EDWARD F. McLAUGHLIN, Philadelphia, a daughter, Louise McLaughlin, Sept. 30.

Deaths

MRS. FLORENCE L. WEIDMAN, wife of Dr. Fred D. Weidman, Llanerch; Sept. 20.

MRS. MARY JANE RITTER, wife of Dr. James W. Ritter, Jersey Shore; Sept. 26.

WILLIAM EDGAR BATES, Centerport; Jefferson Medical College, 1886; aged 68; Sept. 15.

JAMES B. STEWART, Bradford; Medical College of Ohio, 1888; aged 61; recently.

SAMUEL M. WOLFE, Wilkes-Barre; Jefferson Medical College, 1894; aged 65; Oct. 4.

WILLIAM HARRIS, Philadelphia; Baltimore University School of Medicine, 1903; aged 79; Sept. 23.

DAVID WASSERMAN, Philadelphia; Medico-Chirurgical College, Philadelphia, 1910; aged 60; Sept. 17.

JOHN C. CRILLY, Philadelphia; University of Pennsylvania School of Medicine, 1886; aged 70; Sept. 28.

SEDEC SHERMAN RINE, Danville; University of Pennsylvania School of Medicine, 1918; aged 40; Oct. 13.

CHARLES CLINTON OGLE, Chambersburg; Hahnemann Medical College, Philadelphia, 1905; aged 59; May 19, of arteriosclerosis.

LEDRU P. SMOCK, Haddonfield, N. J. (formerly of Philadelphia); University of Pennsylvania School of Medicine, 1882; aged 76; recently.

HARRY L. RANDAL, Philadelphia; Jefferson Medical College, 1901; head of a sanatorium at City Line and Germantown Avenue, Chestnut Hill; aged 59; Sept. 25.

JOHN W. LECKIE, Hamburg; Hahnemann Medical College, Philadelphia, 1893; on the staff of the Hamburg State Sanatorium; aged 64; Aug. 10, of cerebral thrombosis.

MRS. KATHERINE I. WENNER, widow of Dr. A. J. Wenner and mother of Dr. Thomas Wenner, Wilkes-Barre, Dr. William Wenner, St. Louis, and Dr. Richard Wenner, Lebanon; June 25.

FRANK T. NOELSON, Niobe, N. Y.; University of Buffalo School of Medicine, 1885; aged 72; in August. Dr. Noeson practiced medicine in Bear Lake, Warren County, Pa., for 48 years. He had been a member of the Warren County (Pa.) Medical Society over 35 years; his State Society; and the A. M. A.

JOSEPH ELMER SCHAEFER, Cogan Station; College of Physicians and Surgeons, Baltimore, 1896; served on the Lycoming Township Board of Education for 15 years; member of his county medical society, of which he was a trustee; State Medical Society; and the A. M. A., aged 65; Sept. 17. He is survived by his widow, a daughter, a son, 3 sisters, and 3 brothers.

JOHN DEAN ELLIOTT, Philadelphia; Hahnemann Medical College, 1901; clinical professor of surgery at his alma mater, surgeon at Hahnemann Hospital; surgeon at Abington Hospital since it was organized 20 years ago; took postgraduate courses in Berlin and Vienna; served in the World War; Fellow of the American College of Surgeons and American Institute of Homeopathy; aged 57; Oct. 8. He is survived by his widow, 2 daughters, and a son.

JOHN W. ECKFELDT, Brookline; University of Pennsylvania School of Medicine, 1872; grandson of the first coiner of the Philadelphia Mint, and a nationally known authority on lichenology—his collection of botanical species is owned by the Academy of Natural Sciences, while his herbarium is housed in the Morris Arboretum; member of his county and State medical societies; the American Medical Association; and the Academy of Natural Sciences; aged 82; Oct. 5. He is survived by his widow and a son.

EDWARD GEORGE HEYER, Nanticoke; Medico-Chirurgical College, Philadelphia, 1910; aged 51; June 20.

He was born in Hazleton, Pa., Dec. 26, 1882, the son of John George and Sophia (Krapf) Hoyer, graduating from high school in 1901. After 4 years of business he entered medical school. Subsequently he was assistant surgeon to Walter Lathrop at the Hazleton State Hospital until 1914, when he moved to Nanticoke and became attached to the Nanticoke State Hospital, where he was chief surgeon at the time of his death. His original connection with the Nanticoke Hospital was as superintendent and chief surgeon. The former office he relinquished in 1925. He was a member of his county and State societies and a Fellow of the A. M. A., also a member of the board of directors of the First National Bank of Nanticoke.

He is survived by his widow and a brother, Dr. Fred W. Hoyer, of Nanticoke.

ALVIN J. KERN, Slatington; Cleveland College of Physicians and Surgeons, 1887; University of Pennsylvania Medical School, 1888; aged 68; Oct. 15, heart disease. He was born in Slatington, March 28, 1865, the son of Thomas and Amanda Kern; educated in the public schools, and was graduated from Ursinus College, 1886; began practice in Slatington in 1888. In 1891 took a postgraduate course at the Philadelphia Polyclinic Hospital. A member of his county and State medical societies, and a Fellow of the A. M. A. He was the first Republican member of the State Legislature elected from Lehigh County, in 1894, and re-elected in 1896; a member of the Slatington school board for 9 years, having been elected for 3 successive terms (served one term each as president, secretary, and treasurer); also a director of the First National Bank of Slatington. He was a member of numerous lodges, and connected with a number of business enterprises, including the Thomas Kern Lumber Company of which he was president. A daughter, 3 brothers, and a sister survive.

JOSEPH ARMIN STACKHOUSE, Erie; Hahnemann Medical College, Philadelphia, 1911; aged 43; Sept. 4.

Dr. Stackhouse was born in Ambler, Pa., in 1889. Upon graduating in medicine he entered practice in Erie. During the World War he was commissioned a lieutenant in the Medical Corps of the U. S. A., and assigned to the 77th Division, serving from Aug. 10, 1917, to June, 1919. While on ambulance duty in the Argonne Sector, he sustained wounds in the chest and hip, the aftermath of the chest wounds causing his death. He died at his summer cottage at Fairplain, and was confined to bed during the past 2 years. He was accorded full military honors, a detail of inmates of Soldiers' and Sailors' Home, to which institution Dr. Stackhouse had been attending physician for 7 years, officiating.

Dr. Stackhouse was a past president of the Erie County Medical Society; a member of the State Medical Society; member of the medical staff of both Hamot and St. Vincent's Hospitals; a founder of the Erie Exchange Club; chief of staff at the Erie Infants' Home.

He is survived by his widow, 3 children, his parents, and a brother.

JOHN BLOSS WOLFE, Wilkes-Barre; Jefferson Medical College, 1915; aged 41; June 1, of heart disease.

He was born in Berwick, Pa., March 21, 1892, the son of Edward I. and Anna Bloss Wolfe, his father having taught English and history for 40 years at the

Wyoming Seminary. Dr. Wolfe was graduated from the Wyoming Seminary in 1909. While an intern at the Episcopal Hospital, Philadelphia, the United States entered the World War and he enlisted with the Episcopal Hospital Unit, being commissioned first lieutenant, Medical Corps. From Camp Crane, at Allentown, he went to Camp Dix and thence to the Blois Base Hospital in France as a detached officer. In April, 1918, he rejoined his unit at Nantes, France, where he served until April, 1919. He left the service with the grade of captain. He was on the medical staff of the Wilkes-Barre General Hospital; editor of the *Bulletin* during its 2 years of existence in 1922 and 1923; founded the Physicians' Golf Association of Luzerne County; a member of his county and State societies and a Fellow of the A. M. A.; a member of the Lehigh Valley Medical Association, and a Fellow of the American College of Physicians. He is survived by his wife, 4 children, and 2 brothers, Dr. Edward I. Wolfe, of Forty Fort, and Dr. Eugene Wolfe, intern at the Philadelphia General Hospital.

Miscellaneous

FRED W. HEYER was appointed chief surgeon at the Nanticoke State Hospital to succeed his brother, the late Edward G. Hoyer.

CLARENCE R. PHILLIPS, Harrisburg, Trustee and Councilor of the State Medical Society, has accepted the chairmanship of the Christmas seal sale in this State.

MORRIS WEINSTEIN will speak at the Mt. Sinai Hospital, Philadelphia, Nov. 22, at 8:30 p. m., on "Sinus Infection and Its Consequences." This lecture is free to the public.

THE NEW HOME FOR NURSES at the Wilkes-Barre General Hospital, erected by members of his family as a memorial to the late Dr. Lewis Harlow Taylor, was opened, June 29.

W. WAYNE BABCOCK, Philadelphia, professor of surgery, Temple University Medical School, has been elected president of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons.

JOSEPH B. WOLFFE, associate professor of medicine, Temple University Medical School, addressed The Harlem Medical Association, Oct. 4, on "The Premonitory Symptoms of Coronary Disease and Its Management."

ROSS V. PATTERSON, Philadelphia, addressed the Atlantic County Medical Society, Oct. 13, at Atlantic City, N. J., on "Coronary Thrombosis with Special Reference to Its Differentiation from Abdominal Surgical Conditions."

AT THE INAUGURAL MEETING of The Philadelphia County Medical Society held Sept. 27, Walter S. Cornell was installed as president and the address of the retiring president was read by Charles F. Nassau. There were musical entertainment and refreshments.

THE FORTY-FOURTH ANNUAL MEETING of the Association of American Medical Colleges was held Oct. 30, 31, and Nov. 1. The first day's session was held in Rochester, Minn.; and the second and third sessions were held in Minneapolis, on the campus of the University of Minnesota.

THE NORTHWESTERN GENERAL HOSPITAL, Philadelphia, which for more than 25 years occupied a building of its own at 22d and Diamond Sts., will transfer its activities to a special wing of Temple University Hospital, although it still will operate as a separate unit, announced recently by W. N. Parkinson, dean, Temple University Medical School.

The *Bulletin of the Luzerne (Pa.) County Medical Society*, Sept., 1933, states, "With noticeable lack of support by members of the society, the Outing Committee took the treasury for a ride on the occasion of

the annual outing, June 21, at the It'll Do Farm. The affair was widely advertised and lavishly planned and executed, but lamentably supported by the physicians of the county."

THE PHILADELPHIA PEDIATRIC SOCIETY announces a prize award of \$100 for the best original study pertaining to pediatrics. For such studies the broadest scope is permitted. The competition is limited to physicians. Completed studies should be in the hands of the secretary of the society not later than Dec. 5, 1933. Should the studies submitted be of sufficient merit to warrant recognition, a second prize of \$50 will be awarded.

THE STATE DEPARTMENT OF HEALTH in September opened war on hexeri, voodooism, and pow-wow, so long prevalent in Lancaster County and other sections of the State. Two arrests were made. A long line of mysterious drugs, papers with cabalistic markings, a "hoodle-doodle baby," a small wooden image about 2 inches long, packages of bark and other unidentified packages were presented in evidence at the hearing.

PRESIDENT ANGELL, of Yale University, has announced the acceptance by Harvey Cushing, Boston, of the Sterling Chair of Neurology at the Yale School of Medicine. This position was created by a gift of \$300,000 from the estate of John W. Sterling. It is expected, according to announcements, that Dr. Cushing will engage in research work in laboratories of the Sterling Hall of Medicine. Dr. Cushing has discontinued his connection with Harvard Medical School.

THE PENNSYLVANIA STATE MEDICAL BOARD will hold its midwinter examinations in Philadelphia, Jan. 2 to 6, 1934; the written examination will be held the first 3 days, and the bedside examination from the 4th to 6th, inclusive.

At the recent meeting of the Board, Oct. 11, Deputy State Superintendent of Instruction W. M. Denison was elected secretary of the Board, and Irvin D. Metzger, M. D., was reelected chairman.

DR. WALTER I. LILLIE has been appointed professor of ophthalmology at Temple University. Dr. Lillie is a graduate of the University of Michigan and the graduate school of the University of Minnesota. He was appointed first assistant in the section on ophthalmology at the Mayo Clinic, July 1, 1917, and associate in 1921. He was also instructor in ophthalmology at the Mayo Foundation Graduate School University of Minnesota. Dr. Lillie served as first lieutenant in the Medical Reserve Corps, A. E. F., from 1917 to 1919.

A SYMPOSIUM ON DISEASES of the thyroid gland will be held at the Geisinger Memorial Hospital, Danville, under the auspices of the Montour County Medical Society, Friday, Dec. 1. An operative clinic, devoted to the treatment of various types of goiter, will be held in the morning, following which luncheon will be served. At 2 o'clock a scientific program will be held and papers presented by David Marine, of New York, Frank H. Lahey, of Boston, William F. Rienhoff, Jr., of Johns Hopkins, and others who are in a position to speak with authority on the subject of goiter. The meeting will be under the chairmanship of Harold L. Foss.

THEODORE O. YODER has been appointed staff associate of the National Society for the Prevention of Blindness. Mr. Yoder was formerly on the staff of the American University at Cairo, Egypt. As part of his duties in the Division of Extension, he produced a 3-reel motion picture film on the care of the eyes which is now being used in public health education campaigns in Egypt, India, and Japan. Mr. Yoder received his B.A. degree from Southern Methodist University, Dallas, Texas, and his M.A. degree from Columbia University, New York City.

THE 47TH ANNUAL DINNER of the Association of Ex-Resident and Resident Physicians of the Philadelphia General Hospital will be held, Tuesday, Dec. 5, 1933, at the Philadelphia Country Club, Bala, Pa. David

Riesman, the speaker, will be introduced by Herman B. Allyn. Ex-Residents are urged to send their correct addresses to the secretary, George Wilson, M.D., 133 S. 36th St., Philadelphia, Pa.

THE POSTGRADUATE COMMITTEE of the Lackawanna County Medical Society has arranged a very timely and interesting series of lectures and clinics on "Allergy," by Richard A. Kern of the University of Pennsylvania. The first lectures were held Oct. 7 and 12, and were well attended. The next 2 lectures will be held in conjunction with the regular Tuesday evening meetings of the society. The final meetings will be in the nature of practical demonstrations.

THE 109TH ANNUAL SESSION of the Jefferson Medical College was inaugurated, Sept. 20, 8 p.m., Mr. Alba B. Johnson, president of the Board of Trustees, presiding. The Introductory Lecture was delivered by J. Clarence Keeler, professor of otology, on "Hearing With Other Peoples' Ears." Dean Ross V. Patterson welcomed the 573 students. The new students consisted of 160 freshmen and 4 juniors. Among the members of the class are sons of 14 Jefferson graduates, together with 5 other relatives of Jefferson graduates. There are 5 other sons of physicians, not graduates of Jefferson Medical College.

IN RECOGNITION of his untiring efforts in behalf of local and State medical organizations during the past year, over 150 members of the Lackawanna County Medical Society gave a testimonial dinner to President Charles Falkowsky, Jr., of the State Society, at the Abington Hills Country Club, recently. The principal speaker was Donald Guthrie, Sayre, president-elect of the State Society, who paid a high tribute to President Falkowsky for his successful administration of the office during one of the most trying periods in the history of the State organization. Ernest L. Kiesel served as toastmaster; Edward A. Schumann, Philadelphia, also spoke. An engraved medallion was presented to President Falkowsky by Leonard G. Redding, Scranton, on behalf of the members.

A MEETING OF THE organized Alumni of the Section on Oto-Laryngology, Graduate School of Medicine, University of Pennsylvania, in honor of George M. Coates, was held in connection with the annual meeting of the American Academy of Ophthalmology and Oto-Laryngology in Boston, Sept. 19. A resolution was unanimously adopted by the alumni expressing to Dean George H. Meeker of the Graduate School of Medicine their great appreciation of the training received during both their basic and degree years. They further assured him that they felt he deserved the credit for the development of what has become known internationally as the Pennsylvania System of Graduate Instruction, due to his wisdom and foresight. Brief addresses were given by George M. Coates, Robert F. Ridpath, Gabriel Tucker, and Benjamin H. Shuster. The annual meeting of the Alumni will be held in Philadelphia about the third week in May, 1934.

THE OPENING EXERCISES of Temple University School of Medicine were held Sept. 27, Dean William N. Parkinson presenting the members of the teaching staff to the incoming students. The enrollment for the session 1933-1934 is as follows: First year, 113; second year, 117; third year, 109; and fourth year, 120. There are 95 Pennsylvanians and 17 sons of physicians. The freshman class was selected from a total of 978 applicants.

Teaching facilities were further enhanced by the addition of a clinical amphitheater, the gift of Mr. Charles C. Erny, a member of the Board of Trustees of Temple University. President Charles E. Beury has announced the appointment of Dean Parkinson to the Board of Trustees.

ACCORDING TO AN A. P. dispatch, football may expect 30 or 40 deaths again this season, Dr. Marvin A. Stevens, Yale coach and physician who has made an ex-

haustive study of gridiron injuries and their causes, told a group of coaches, Sept. 8, at the annual rules interpretation meeting of the Eastern Interscholastic Association.

Discussing the control and treatment of football injuries, he warned that football must be "vaccinated with supervision" just as the medical profession learned to control smallpox by inoculation, if the campaign of education for eradication of injuries is to succeed. There are so many players throughout the country and still so great a lack of supervision despite the efforts of the coaches' safety committee, rules changes, improvement of equipment, that another series of fatalities similar to those of past seasons impends again this fall.

Dr. Stevens made 2 specific suggestions to aid in the campaign against injuries: Coaches should change football's old slogan of "tackle low" to "tackle high." Tackling around the hips instead of the knees, blocking high instead of low, is just as effective as was the old system. This change, Dr. Stevens said, would reduce the greatest cause of severe injury and death—contact between the knees of the ball and carrier and the head and neck of the tackler.

As another step in a scientific campaign to eliminate injuries, Dr. Stevens stressed the need for more "live tackling," as a means of teaching ball carriers how to fall with a minimum of danger to themselves when in the arms of a tackler. Use of a tackling dummy that neither has knees to avoid nor bones and muscles to be saved from injury when the tackler hits, prepared no one for the conditions that arise during actual play.

"A HISTORY OF ARTIFICIAL PNEUMOTHORAX IN AMERICA," which will run in five installments, began in the September number of the *Journal of the Outdoor Life* (National Tuberculosis Association). The series is by a well-known physician who has spent more than three years in gathering and compiling the material.

The comparatively recent rise of surgery in the treatment of tuberculosis has focused the attention of both tuberculosis specialists and of general surgeons on this method. The series of articles traces the history of the use of artificial pneumothorax from the very first mention of this method of treatment in America, made in a communication written by Dr. Daniel McRuer in 1835 and published in the *Boston Medical and Surgical Journal*. Naturally, much stress is laid on the paper read by Dr. John B. Murphy, of Chicago, in 1898, at the Denver meeting of the American Medical Association. The unfortunate conflict on priority between Murphy and Forlanini is also discussed and the strange lapse of interest for a decade following the death of Lemke, Murphy's associate, in 1904, is graphically recited. The author then comes down to the more recent developments during the first two decades of the present century and brings the history to the present time.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 13: No. 4. (Mayo Clinic Number—August, 1933.) Octavo of 215 pages with 65 illustrations. Per clinic year, February, 1933, to December, 1933. Paper, \$12; cloth, \$16 net. Philadelphia and London: W. B. Saunders Co., 1933.

Many interesting cases with clinical notes and comments are considered in this volume. As usual the illustrations are good. Special mention should be made of the Z-shaped incision in contractures caused by burns.

The flap operations may even be avoided in some patients.

QUACKS. Charles W. Warner, Jackson, Miss. Fifth printing, revised and enlarged. 204 pages. 1932. \$1.00.

Quacks, by Charles W. Warner, made its first appearance in October, 1930, and is dedicated to "Man's Best Friend, the Family Doctor." The 1932 edition contains some new statistics and corrections concerning the development of modern quackery, and may well be recommended to members of the medical profession and the laity as a safeguard against the dangerous cults that are a menace to the well-being of humanity.

The author interestingly discloses the history of quackery and resultant evils that by it are inflicted on mankind. One who reads the introductory pages will quickly agree that there is a radical necessity that quackery should be speedily eliminated. The author discloses claims of the many unethical and deceiving cults and individuals that for money have been and are enemies of mankind.

THE JOY OF LIVING. An autobiography. Franklin H. Martin, M.D. Forewords by William J. Mayo, M.D., Rochester, Minn.; George W. Crile, M.D., Cleveland, Ohio; Newton D. Baker and Daniel Willard. Two Volumes. Illustrated. Price, \$7.00. Doubleday, Doran & Co., Inc., Garden City, N. Y.

In the first volume of this autobiography, Dr. Martin details the struggle for a medical education. With but little to go on so far as this world's goods are concerned, the author relied upon a sturdy mental and physical inheritance from his pioneer forefathers. The result was success first as a student and later as a gynecologist, organizer, and publisher.

His devoted wife, Isabelle Hollister, is given full credit for her invaluable assistance in making the man. The story of the beginning of the *Archives of Surgery, Gynecology and Obstetrics* and the movements which eventually led to the establishment of the American College of Surgeons which has made great strides under his executive ability, makes interesting reading especially for the members of the medical profession.

The second volume deals with the World War period and gives one a good insight into the workings of the Government Agencies which led finally to ending the war. The author served ably as a representative of the medical profession in the Council of National Defense. For that reason, he gives an inside story of that great struggle. Dr. Martin has done his autobiography well, as is his habit of doing anything he sets out to do.

A TEXTBOOK OF PHYSIOLOGY. William H. Howell, Ph.D., M.D., Sc.D., LL.D., emeritus professor of physiology in The Johns Hopkins University, Baltimore, Maryland. Twelfth Edition, thoroughly revised. 1132 pages with 308 illustrations. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, \$7.00 net.

The appearance of a new edition of Howell's Textbook of Physiology is so regularly a triennial event since 1915 that the latest edition, in spite of the heavy revision, needs but little comment. It is sufficient to mention the more thoroughly improved and enlarged sections as those on the chemistry of muscle contraction; on nerve conduction, vision, and hearing; on the blood, heart, and pulse; on the circulation and respiration, gastric secretions, liver, and kidneys; on water balance, nutritional conditions, enzymes, endocrines, hormones, and vitamins. The introduction of short historical résumés is not only a delightful feature, but renders the reader conscious of the continuous growth of physiology through controversies and readjustments.

The world-wide reputation earned by this book is due principally to "two guiding principles: First, the importance of simplicity and lucidity in the presentation of

(Concluded on page xiv.)

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BOOK REVIEWS

(Concluded from page 198.)

facts and theories; and, second, the need of a judicious limitation of the material selected." It is gratifying to note throughout the book that Dr. Howell, fully realizing the difficulties of evaluating new theories and developments, does not ignore the discussion of "the live issues of today."

There are very few typographical errors, the printing paper and binding are good, the illustrations clear.

There is no more mature, accurate, and sound presentation of the American present day point of view of physiology.

STATE MOTOR LAWS NEARER UNIFORMITY

The United States moved nearer the goal of uniformity in basic automobile traffic rules as the result of motor vehicle legislation enacted in the 44 states where legislatures were in session this year, the American Automobile Association finds.

Less confusion to motorists traveling from state to state was seen by association officials as local laws came nearer to agreement on such subjects as registration and license requirements, speed limits, right of way, overtaking on hills, passing street cars, dimming of headlights and stopping at grade crossings.

The laws of the 48 states and the District of Columbia are now fairly uniform in the requirement that a driver involved in an accident, whether it involves a personal injury or property damage, gives his name and other information to the occupants of the other car, the survey shows.

The hit-and-run driver who fails to stop after an accident is an outlaw everywhere.

In six states, namely, California, Colorado, Kansas, Nebraska, Washington, and West Virginia, a nonresident must secure a driver's license. A visitor in the latter three states, however, need not secure a license to drive his own car if he resides in a state where all operators are licensed after an examination. Nonresident car owners in California, Colorado, Connecticut, Maine, New Hampshire, Washington, and West Virginia are required to secure a license to drive a car registered in those states.

Vehicles approaching from the right generally have the right of way.

Overtaking on hills or curves where the view is obstructed is specifically prohibited now in 34 states and the District of Columbia. Coasting down-grade in neutral is dealt with under the laws of 24 states and the District of Columbia.

Passing of street cars on the left is banned in 37 states and the passing of street cars taking on or discharging passengers is frowned on generally.

Ten states require a full stop before crossing railroad tracks. The laws of 14 states say that lights must be dimmed when approaching vehicles. Spotlights are prohibited in the District of Columbia, Kansas, North Carolina, Oklahoma, Wisconsin and in cities in Missouri.—*Philadelphia Inquirer*, Aug. 20, 1933.

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* J. Soc. Chem. Ind. 42: 185, 205, 1923.



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BRIGHT'S DISEASE *†

The Newer Orientation Regarding Classification, Pathogenesis, and Treatment

WILLIAM S. McCANN, M.D., ROCHESTER, N. Y.

After I mention the name of Richard Bright and the words "Bright's Disease,"—I wish to pause for an instant to allow associated ideas to crowd into the minds of my audience. Have you ever stopped to think how few of those ideas were unfamiliar to Richard Bright? Albuminous urine, anasarca, blood urea, blood proteins, enlarged heart, high tension of the pulse, the various types and manifestations of "uremic" states, and finally gross anatomic alterations in the kidneys found at necropsy,—all these associated ideas were familiar to Richard Bright, to whom chiefly we owe our knowledge of their association.

No phrase in all the writings of this remarkable man is more pregnant with meaning than this one; "diseased function going on to diseased structure of the kidney." From a man whose principal investigations were in the field of morbid anatomy, this concept of the priority of functional derangement is most surprising. It reveals the great scope and deep penetration of his mind, which thus expressed in 1833 a concept which one might expect in 1933 from the lips of Rudolf Krehl, von Bergmann, or your own Alfred Stengel.

Bright must have yearned deeply to understand the pathogenesis of these renal disorders. He had to work with the methods and tools then available. The development of microscopic anatomy came a little too late for him. What joy he would have had in the investigations of Gull and Sutton! His spirit may have hovered at the shoulder of A. N. Richards during the introduction of a microscopic cannula into Bowman's capsule to get some glomerular filtrate for analy-

sis. Can you not imagine that sedate spirit rubbing his ectoplasmic hands in ghostly glee? Can you not imagine his ecstasy in reading the works of Volhard and Fahr, and the genuine admiration with which he would look upon the methods of Addis and Oliver?

Before we enter upon some of the more speculative aspects of this discussion, I wish to refresh your memories with certain of the simple facts concerning the microscopic anatomy and physiology of the kidney. I invite your attention to a diagram, Fig. 1, which shows the relationship of the tubular systems in the kidneys to their blood supply and to the glomeruli. Each minute unit of the kidney consists of a glomerular tuft, which is surrounded by Bowman's capsule. This leads into a system of resorptive tubules, proximal convoluted, loop of Henle, and distal convoluted tubules. These in turn empty into collecting tubules which unite with others to form larger and larger tubules, finally into those called the ducts of Bellini. These empty into the pelvis of the kidney. The diagram further shows the arterial and venous arches between medulla and cortex. Branches of these arteries enter the glomerular tufts. A most important fact to remember is that the blood leaving the glomerulus by its efferent vessel is that which supplies the resorptive tubules. The blood supply of the collecting tubules is partly derived from the same source and partly from arterioles coming directly from the main arterial arches. The venous system corresponds to the arterial.

From the hands of A. N. Richards, we have received convincing and tangible proof of the correctness of the glomerular filtration theory of the secretion of the urine. Under his guidance the mechanism of tubular resorption is gradually being revealed. Let us consider briefly the mech-

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

† From the Department of Medicine of the School of Medicine of the University of Rochester, and the Medical Clinic of the Strong Memorial and Rochester Municipal Hospitals, Rochester, N. Y.

anism of the glomerular filter. It is a series of capillary tufts covered over with a single layer of epithelium which is continuous with that which constitutes the wall of Bowman's capsule. Blood enters these tufts from an afferent arteriole with a certain pressure, a hydrostatic force which tends to drive fluid out of the capillaries. The fluid exchange proceeds according to principles which apply to all capillaries, the knowledge of which we owe first to Starling, elaborated by Schade and Clausen, Krogh, and others. The effective filtration pressure of a glomerulus has been expressed in a simple formula by Holten and Rehberg as follows:

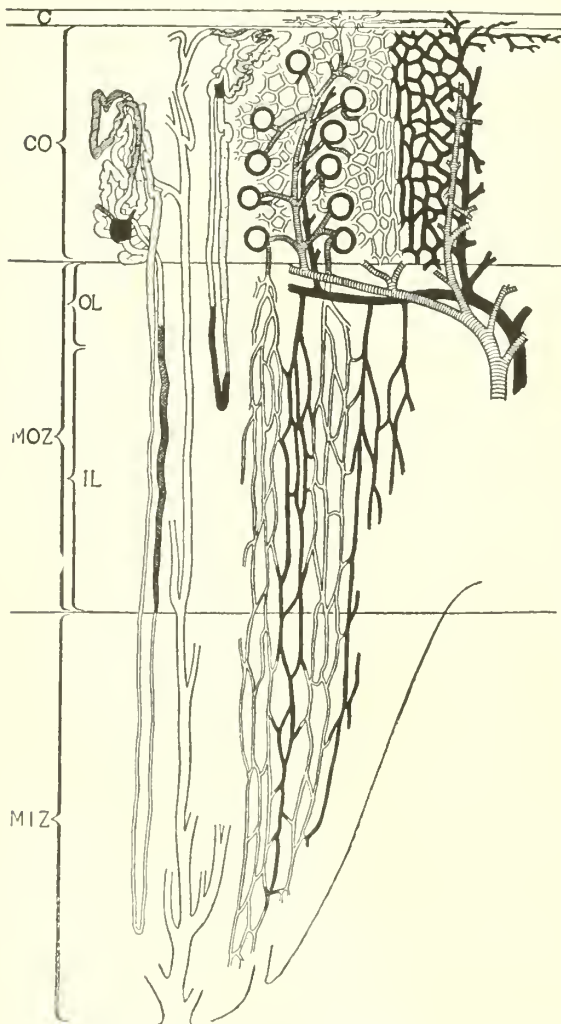


Fig. 1. Diagram of the minute structure of the kidney and its blood supply. Taken from Maximow, *Textbook of Histology*, p. 577, W. B. Saunders & Co., Philadelphia, 1930.

$$P = P_c - [P_o + P_k],$$

in which

P_o = osmotic pressure of serum proteins;
 P_k = fluid pressure in Bowman's capsule;
 P_c = blood pressure in capillaries of the tufts.

The normal glomerular fluid which filters thus into Bowman's capsule is protein free, but otherwise closely resembles blood plasma in composition. This protein-free fluid passing into the resorptive tubules is concentrated by resorption of water, and dissolved substances in varying degrees, probably acting automatically to preserve a normal constancy in the composition of the blood. The concentrated fluid which finds its way through the collecting ducts to the ureters is the urine as we know it.

"ALBUMINURIA" OR PROTEINURIA

When we detect the presence of coagulable protein in the urine we can draw certain inferences. First, we can infer that something has so increased the permeability of the glomerular filter that colloids which are present in the blood escape into the urine. The proteins most commonly found in the urine are the serum albumin and serum globulin. If we determine the extent to which these two proteins escape we gain at once some indication of the degree to which the normal impermeability of the filter is impaired. Glance for a moment at the relative molecular weights of three proteins which may occur in the urine:

Serum albumin	45,000
Serum globulin	81,000
Bence-Jones protein	...24,000

The last named protein may escape through the glomeruli of a normal kidney. The presence of serum albumin and serum globulin in the urine always indicates an abnormal permeability of the glomerulus. Since the albumin molecule is smaller, albuminuria alone indicates a smaller degree of pathologic permeability than if globulinuria also occurs. The more globulin one finds in the urine the greater the permeability of the glomerulus may be assumed to be.

We have very imperfect knowledge of the factors governing permeability of the capillaries. Light is beginning to dawn on this question. It is probably safe to say that the permeability of a capillary increases whenever its endothelial cells are deprived of an adequate supply of oxygen. This may occur in the passive congestion of heart failure and thus account for the albuminuria which accompanies it. It may be that certain toxins or capillary poisons increase it. Specifically applied to the glomeruli is the work of Duval, of New Orleans, who reproduced the lesions of postscarlatinal glomerulonephritis by injecting the products of lysis of scarlatinal streptococci obtained from the peritoneal fluid of animals which had been at least partially im-

munized to this organism prior to receiving an intraperitoneal injection of it.

This very beautiful experimental work is quite in keeping with the clinical facts, that such lesions of the kidney occur in the case of individuals who are at least partly recovered from streptococcal infections, and that both kidneys and urine yield no streptococci on culture in pure cases of diffuse glomerulonephritis. It is not the bacteria themselves which produce these lesions, but some product of the interaction of bacteria and the mechanisms of immunity.

We would probably fall into great error if we were to assume that the glomerular capillaries alone were injured. There is every reason to believe that the capillaries generally suffer the same fate at the onset of acute diffuse glomerulonephritis. The hard edema of nondependent regions, which is so characteristic of its onset, is probably due to increased permeability of capillaries in those regions, with escape of protein from them and with the extravascular retention of water by proteins which have thus escaped. This holding back of water in the tissues is of great importance in connection with the oliguria or suppression of urine, which also marks the onset.

If one recalls that the blood supply of the tubules comes through the glomeruli, it is apparent that degenerative changes are certain to occur in the epithelial cells of the resorptive tubules whenever for any reason the blood flow through the glomeruli is diminished, either by inflammatory changes in them or by vasoconstrictor or arteriosclerotic changes in the afferent arteries. If the blood supply of the tubules were intact it is quite possible that all or a great part of the protein which escapes through the damaged glomerulus, would be resorbed. Some of Whipple's experimental work suggests that this would be so. If hemoglobin is injected it does not appear in the urine, unless the amount is great, due to resorptive activities of tubular epithelium. If this epithelium is first injured by poisoning with mercury the resorption of injected hemoglobin is impaired and it appears more readily in the urine. The fact that the tubules are subject to ischemic injury in a primary glomerulonephritis is an undoubted factor in the loss of protein in the urine. This, coupled with the fact that protein is lost through other capillaries, may lead to a serious decrease in the protein content of the blood plasma. This decrease in serum proteins is one of the principal factors in the production of the soft dependent edema which occurs in the nephrotic stages of glomerulonephritis. In fact the nephrotic stages of this disease may so closely resemble true ne-

phrosis that an error of diagnosis may be made unless precautions are taken, namely, to study the urine microscopically with great care. Glomerulonephritis is distinguished from nephrosis in some stages only by obtaining a history of hematuria, or by demonstrating an excessive number of red corpuscles in the urine by counting them according to the method of Thomas Addis.²

Addis gives the following figures for the composition of the urinary sediment of a 12-hour nocturnal specimen, voided by normal men after a "dry day":

TABLE 1.—COMPOSITION OF THE URINARY SEDIMENT

Composition	Range	Average
Red blood corpuscles	0-425,000	65,750
Casts	0-4,270	1,040
White blood cells and epithelium	32,400-1,000,000	322,500
Protein	10-30 mg.	

If an Addis count reveals the presence of 500,000 erythrocytes in the 12-hour night urine, if the number of casts is also increased, and non-nephritic causes of hematuria are ruled out by proper diagnostic procedures one may expect to find evidence of a glomerulonephritis, diffuse or focal. The diffuse form alone is accompanied by evidences of generalized capillary injury, such as nondependent edema, and changes in serum proteins, and globulinuria. The focal form does not give these manifestations, nor does it usually involve enough glomeruli to impair renal function. The focal glomerulonephritis is the form associated with bacteremia, as in bacterial endocarditis. Edema, if it occurs in focal nephritis, is usually that of heart failure.

One may determine a great deal about the anatomic changes in the kidney by a study of the casts in the sediment. Glomerulonephritis gives blood casts or casts composed of the debris of red cells. The hyaline cast is due to a coagulum in the resorptive tubules consisting chiefly of proteins which escape through the glomerular filter. Granulation of casts occurs usually in proportion to the degree of active degeneration going on in tubular epithelium. Addis has also described the "renal failure" cast, a large cast molded in the collecting tubules or ducts of Bellini. These occur when the renal units draining into this duct have nearly ceased to function. A little coagulum forms in the collecting tubule with barely enough urine formed behind it to cause its expulsion into the renal pelvis. In sections of the kidney one may frequently see these casts remaining *in situ*. So far our discussion has been limited to one form of nephritis, that form in which the glomeruli show inflammatory

changes—glomerulonephritis or hemorrhagic nephritis. We may epitomize it as follows: Hematuria characterizes all stages; a generalized increase in capillary permeability is in evidence at least in the initial stages and acute exacerbations, resulting in the hard nondependent edema and globulinuria; evidence of tubular degeneration and the nephrotic syndrome are manifestations secondary in all probability to interference with tubular blood supply which must come through the damaged glomerulus; the final or uremic stage associated with contraction of the kidney is still identifiable by the persistent evidence of hematuria in Addis counts and the inflammatory changes in the remaining glomeruli found at necropsy.

In contrast to the disease process which has just been described let us consider the form of Bright's disease that occurs in patients with so-called "essential hypertension," the arteriosclerotic Bright's disease or nephrosclerosis. It is now a matter of common knowledge that many patients are found to have high blood pressure for many years before any evidence of renal damage or abnormality of the urine can be detected. We speak of this condition as benign hypertension. In the course of time the persistence of hypertension results in degeneration in the finer arterioles such as those seen in the eye, or those which supply the glomeruli with blood. The advent of this change is marked by the appearance of albuminuria and casts in the urine, and by the absence of hematuria if the urinary sediment is carefully studied by the technic of Addis. The contraction of the kidney is slow and only a few patients reach the uremic stage. Before this occurs apoplexy or heart failure has usually intervened.

There are cases of hypertension which we refer to as "malignant." Such a designation is merited by the rapidity with which arterioles are damaged. The process may be followed in the retinal vessels by frequently repeated ophthalmoscopic examinations which reveal not only sclerosis of the vessels, and hemorrhages, but "cotton wool exudates" and neuroretinal edema. In the kidney the afferent arterioles become occluded by endarteritic changes, sclerosis and contraction occur rapidly. Glomeruli and tubules deprived of their blood supply degenerate, cease to form urine, and are finally replaced by fibrous tissue. Those portions of the kidney which have not ceased to function elaborate a urine containing albumin and casts but no red corpuscles, at least not abnormal numbers of them.

Closely allied to this we have the hypertensive toxemias of pregnancy, in which it seems not unlikely that an active vasoconstriction of arterioles

may occur in retina, brain, and kidneys. The albuminuria in such cases may be due to ischemic injury to the glomeruli and resorptive tubules causing them to let pass serum proteins but not to pass an excess of red corpuscles. Function may be restored if vasoconstriction is not too greatly prolonged.

We have a third class of renal disorders to consider under the heading of Bright's disease. This class includes all the conditions in which the tubular epithelium alone is injured with resulting degeneration. In it the arterioles remain intact, and the glomeruli remain intact until the terminal stages, except for degenerative changes in the epithelial covering of the tufts, or the deposition of amyloid in them.

These degenerative types of Bright's disease, the nephroses, are characterized by albuminuria and cylindruria. The urine never contains an excessive number of red corpuscles. The loss of large amounts of albumin may deplete this fraction of the serum proteins and result in the soft dependent edema which accompanies low serum proteins.

The nephroses cover the whole range of pathologic changes from a simple "cloudy swelling" with "febrile albuminuria," epithelial necrosis such as that due to poisoning with mercury or bismuth; fatty or lipoid degeneration, or amyloid degeneration. Some would classify the kidneys of the toxemias of pregnancy with this group, but I prefer to group them with the hypertensive nephroscleroses. The genuine nephroses never exhibit hematuria or hypertension. They may in the terminal stages exhibit nitrogen retention, particularly in amyloid degeneration. Uremia is in rare instances due to a contraction of a nephrotic kidney.

The broad outlines of pathogenesis of the three main types of Bright's disease have been presented as a basis for the discussion of treatment. The views which I have presented are in many respects speculative or hypothetical. They are, however, well in accord with the established facts in our clinical knowledge of Bright's disease.

Up to the present time the dominant idea in the treatment of these disorders has been to seek to modify them through control of the diet. For some reason, various foods have been regarded as injurious to the kidney. This I have found to be a common idea among practitioners, and in particular with regard to the ingestion of proteins. It has received some support from the experimental work of Newburgh, who at first believed that large amounts of protein in the diet produced renal lesions in experimental animals. Later work of Newburgh, however, in-

licated that it was not the proteins themselves which produced the injury, but other nonprotein substances possibly derived from the nuclei of very cellular organs such as liver which were responsible.

Keutmann and McCann have made some experiments to determine whether or not there was clinical evidence of the injuriousness of high protein diets in cases of chronic glomerulonephritis. Patients were selected for study who were in a fairly steady state as regards the activity of the disease. During a fore period in which a low protein diet was given, frequent counts were made of the number of red corpuscles in the urine, and this was taken as a measure of the intensity of the inflammatory reaction in the glomeruli. The functional activity of the kidney as a whole was measured by Van Slyke's test of the "urea clearance." These two criteria, we believed, would indicate whether or not harm was being done to the kidney if the diet was changed from one poor in protein to one rich in this substance. The result of our investigations led us to the conclusion that a protein-rich diet was not only harmless, but actually beneficial. It should be said, of course, that all sorts of other observations were made by which we could judge of the welfare of our patients, in addition to the two which reveal the state of the kidney alone. By all criteria their welfare has been improved, anemia becomes less, gains in flesh offset the loss of weight from disappearing dropsy, blood pressure is not adversely affected, and general strength and well being usually improve.

This work has received support from many quarters. Epstein, of New York, has been advocating high protein diets in the treatment of lipoid nephrosis for many years. Nor should the work of Solomon Strouse, of Chicago, be overlooked. This investigator studied the effect of protein, salt, condiments, coffee, and tea upon patients with the hypertensive types of renal disease. He concluded that in ordinary amounts none of them produced demonstrably adverse effects.

Somewhat similar observations have been made by O'Hare and Walker with regard to the effect of salt upon hypertensive patients. These authors conclude that extreme salt restriction was unnecessary. They advocated moderate restriction to 3 to 4 grams daily. The reasons for this restriction have more to do with the tendency of the hypertensive patient to develop larval edema of cardiac origin than with any adverse effect of salt upon the kidneys or on the blood pressure. Restriction of salt is indicated whenever patients have edema from any cause. We

may entirely dismiss the idea that the ordinary constituents of a normal diet are harmful to the kidney.

At this point I should like to discuss the management of the different types of Bright's disease when edema is present. Though salt restriction is fundamental to all edemas, correct management requires an understanding of the different types of edema and a knowledge of the type with which one is dealing.

Three types of edema occur in Bright's disease:

(1) The *hard nondependent edema* which marks the onset and the exacerbations of glomerulonephritis.

(2) The soft dependent edema which occurs when serum proteins are depleted. It frequently succeeds the first type in glomerulonephritis because of the loss of circulating proteins through abnormally permeable capillaries, also it characterizes lipoid nephrosis, and occurs in patients of all types who have been kept too long on low protein diets.

(3) Finally, *cardiac edema*, which occurs more often in the nephroscleroses of hypertension, and less frequently in glomerulonephritis.

The first form calls only for salt restriction, bed rest, the application of external heat to aid in vasodilatation, and the exhibition of sodium amytal or magnesium sulphate if eclamptic phenomena supervene. The second form of edema, the soft pitting edema of dependent regions associated with low serum proteins calls for management directed toward the regeneration of serum proteins. If the patient is anemic, as is frequently the case in glomerulonephritis, the transfusion of well matched blood is a useful initial step. Serum proteins so introduced may be used by the recipient. Next the diet should be so adjusted as to enhance the deposition of protein. This is accomplished not only by giving a generous ration of protein, but also by providing a liberal supply of carbohydrate and fat, which by their sparing action tend to reduce the endogenous catabolism of protein to a lower level. Whipple and his coworkers have shown that liver causes a more rapid regeneration of serum protein than does beef or milk protein. Keutmann and McCann found no evidence of injury to the kidney when liver was substituted for beef in the high protein diets which were given their patients. There is no reason, therefore, why a part at least of the protein ration should not be obtained from liver when a rapid regeneration of both the formed elements and proteins of the blood is desired.

Concerning the use of diuretics, it is difficult to make positive general statements. In the

presence of renal injury it does not seem desirable to use the mercurial diuretics. Potassium citrate in increasing daily doses of 8, 12, 16, and 20 grams will sometimes aid in the outward movement of water and sodium in dropsical patients. Thyroid extract frequently aids in the reduction of the obstinate dropsies of lipoid nephrosis.

For the third form of edema, that of cardiac origin, in which the serum proteins are normal, the exhibition of digitalis is obviously indicated. Also, at times when one suspects a cardiac element in the second type of edema a trial of digitalis is permissible.

The patient with Bright's disease who has become uremic presents problems which may require some modification of the procedures just mentioned. Before going further into the management of the uremic patient it will be well to give some consideration to the nature of uremia and to its pathologic physiology.

We are too prone to think of the kidneys as excretory organs, simply charged with elimination of end products of metabolism for which the body no longer has any use. The regulatory functions of the kidney are of equal importance, because it is largely due to these that the fluids which bathe the cells are maintained at a fairly uniform composition. Regulatory function makes it just as imperative to retain some substances as it is to excrete others.

As one important example of regulatory function let us take the rôle of the kidney in maintaining the acid-base equilibrium. In the catabolism of protein, phosphoric and sulphuric acids are continually being produced. These pass through the kidney more or less combined with bases. If the body has on hand a liberal supply of fixed bases these acids may appear in the urine with fixed base. If fixed base is at a premium the kidney may manufacture a volatile base ammonia with which partially to neutralize these acids, thus conserving fixed bases for other functions in the body, such as the transportation of carbon dioxide.

If the functional capacity of the kidney is gradually reduced by atrophy and fibrous replacement of its structural units, there comes a time when it is no longer able to maintain either its excretory or regulatory function. Fixed acids may not be excreted as rapidly as they are formed, their accumulation in the blood has the effect of diminishing the alkaline reserve of the body. If at the same time the ammonia-forming function of the kidney is impaired, such acids as may be excreted will carry with them fixed base, further reducing the alkaline reserve. The re-

sult is a state of acidosis, which is nearly invariably a phenomenon of uremia.

The conservation of essential materials for blood regeneration is probably in part a function of the kidney, the failure of which plays a rôle in the terminal anemias of Bright's disease.

Uremia may be defined as the state in which renal function is insufficient to maintain the constancy of composition of the blood and lymph, because of the failure of both excretory and regulatory functions. It is manifested by the accumulation in the blood of the normal end products of protein metabolism and frequently by a diminished alkaline reserve and anemia.

The eclamptic phenomena and related symptoms of motor disturbances in the central nervous system probably have little to do with this failure of renal function. Volhard has called them false uremic symptoms, regarding them essentially as circulatory disturbances, which may occur in the absence of uremia, or as a coincidental accompaniment of it.

If we choose the "urea-clearance" test of Van Slyke as a measure of kidney function we find that a reduction to 50 per cent of normal may occur before the phenolsulphonephthalein excretion is notably impaired. When function has diminished to less than 20 per cent, uremic manifestations are apt to begin to appear. They are inevitable by the time the urea-clearance has decreased to 10 per cent of normal. If such a marked impairment of kidney function is present, life is possible only if the whole metabolism of the patient is so regulated that the demands made upon the kidneys are not too much in excess of their ability to comply.

In some cases it is possible to control the situation for surprising lengths of time. I have now under observation a man who has continued in active and successful control of his business for more than two years. He has a chronic glomerulonephritis. He has less than 10 per cent of function by the urea-clearance test and excretes only traces of phenolsulphonephthalein. The nonprotein nitrogen of his blood is usually about 60 mg. per cent, and sometimes 80, or more. When he came under observation it was much higher although he had been receiving a nearly protein-free diet. When he was given 60 or 70 grams of protein *per diem*, with a high caloric diet, he stored a great deal of it, his strength and nutrition improved and the rest-nitrogen of his blood decreased gradually. He is obliged to maintain a high water intake. He receives not more than 3 grams of salt *per diem*. At first it was necessary to build up the alkaline reserve by giving him sodium citrate in doses of 15 grams *per diem*. It is now sufficient to see

that he gets adequate amounts of orange juice to maintain the reserves of base. He has received several transfusions and some iron ammonium citrate from time to time, so that his blood count is usually held at approximately three million red cells and 60 per cent hemoglobin. It is very difficult to combat the anemia in such cases.

This case is mentioned because it illustrates the fact that the rest nitrogen of the blood is not directly dependent upon the amount of protein ingested in the food, but upon the level of the endogenous protein metabolism. Previous to coming under our observation, the patient had been practically starved and yet his rest nitrogen was high. Owing to the starvation to which he had been subjected, his body deposited a great part of the protein which he was given in his diet, consequently the demands for excretion of nitrogen were not increased, but actually diminished as the high caloric diet reduced his endogenous protein metabolism. He seems now to be able to maintain a fairly stable equilibrium on a ration of 60 grams of protein *per diem*. As time goes on it may be necessary to reduce it somewhat. It is usually futile to try to maintain adequate nutrition in these patients on less than 45 grams of protein *per diem*. If a balance cannot be struck at this level the tide of battle inexorably goes against the patient.

We are sadly in need of therapeutic measures aimed directly at the causes of the various forms of Bright's disease. As etiologic factors are coming to be appreciated and better understood, therapeutic developments may be expected. In the case of glomerulonephritis we may learn to modify that state of partial immunity and hyper-reactivity to streptococci in which hemorrhagic nephritis develops. We may do something in prevention by exercising greater care of our patients during the convalescence from streptococcal infections, and take greater pains to eradicate residual chronic foci, in tonsils or sinuses, particularly.

In the nephroses, something can be done. Bismuth and mercurial nephroses could frequently be prevented. It is some times possible to deal with chronic sinusitis or chronic bone suppuration which is responsible for some cases of lipoid nephrosis and amyloid disease. The rare form of nephrosis which occurs in the secondary stages of syphilis may respond to treatment of that disease.

One feels rather hopeless in regard to the treatment of the arteriosclerotic nephroses. The hypertensive vascular disorder upon which they depend will doubtless continue to disable

many persons as long as the tense struggle for existence in our modern civilization continues.

SUMMARY

1. "Bright's disease" consists of three distinct types of diseases, which we can easily differentiate as follows:
 - (a) Glomerulonephritis, a general capillary disorder, characterized in all stages by an increased number of red cells in the urinary sediment, and by inflammatory changes in the glomerular capillaries.
 - (b) The nephroses, in which the tubules alone degenerate, are characterized by the absence of hypertension by the absence of hematuria and by the tendency to edema resulting from excessive losses of serum albumin.
 - (c) The nephroscleroses, in which degeneration follows upon ischemic injury caused by arterial spasm (toxemias of pregnancy) or the arteriolar sclerosis of benign hypertension, or the obliterating arteriolitis of malignant hypertension. Nephroscleroses are characterized by hypertension but not by hematuria.
2. Three types of edema are described in Bright's disease:
 - (a) The hard nondependent form peculiar to diffuse glomerulonephritis.
 - (b) The soft dependent edema with low serum proteins.
 - (c) The soft dependent edema of heart failure. The therapeutic significance of each type of edema has been discussed.
3. None of the ordinary foodstuffs of which a normal diet consists has been proved to be injurious to the kidney.
4. An adequate ration of protein is essential to maintain serum proteins at a normal level and to maintain general strength and well-being of the nephritic patient.
5. Uremia is to be looked upon as a failure of the regulatory functions of the kidneys fully as much as upon a lack of excretion. Especially is this true of uremic acidosis, to prevent which the patient must receive adequate supplies of base.
6. The degree of nitrogen retention in the uremic patient is not directly related to the amount of protein ingested. A patient who has been starved for protein for a long time may deposit a great deal of protein when it

is again given in the diet. Thus the demand for excretion may not be increased until the depleted stores are filled. Beneficial results may be obtained in some cases exhibiting chronic uremia, if the general nutritive state of the patient is used as the guide to diet rather than the amount of rest-nitrogen in the blood. In other words, let us treat the

patient rather than the technician who makes the blood analyses.

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THE WIDENING FIELD OF RADIOLOGY*†

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Medicine had its incipency centuries ago in the practical applications of experiences in the physiologic actions of certain plants and herbs. Surgery was first practiced to a large extent by the barber. Both medicine and surgery gradually developed through coöperation between men working along individual lines until a science was established, and special training was required before one would be allowed to practice the art. Particular interest, training, and experience along certain lines have led to the development of certain specialties in medicine or surgery. Radiology as a later specialty had its beginning almost immediately after the inevitable, though partly accidental, discovery in 1895 of a new form of energy or radiation by the physicist, Roentgen, which revolutionized the science of physics. Within three months after the first public announcement of this discovery of a form of radiation with unusual properties of penetration the medical profession began to make practical application of it as a diagnostic agent. A little later, the discovery of destructive effects upon tissues of the body exposed to this new agent led to the attempt to employ it in the treatment of cancer and other new growths. This was the beginning of irradiation therapy.

Radiology is the medical application of roentgen rays to clinical diagnosis and of these and the radiations from radioactive substances, especially radium, in the treatment of certain diseases. This presentation was expected to cover both diagnostic and therapeutic applications, but the former are so extensive that space and time will permit of but scant mention of the latter. The limitations of both space and time necessitate that this be a statement mainly of reminiscences by one who has been familiar with

radiology since the discovery of roentgen rays, rather than an actual historical sketch of individual efforts leading to the establishment of radiology as a specialty, which is applied to every branch of the medical sciences. Any one interested in the full details of the progress and history of the subject since the discovery of roentgen rays is referred to the publication, "Science of Radiology," authorized by the recent American Congress of Radiology just held in Chicago.‡

The x-rays, so-called because of a lack of knowledge as to their identity, were first used in the diagnosis of fractures and the detection of metallic foreign bodies. The first record of their use in this country was in the examination of a hand for gunshot injury by Prof. Pupin in New York in January, 1896, three months after Roentgen's announcement. One hour was about the exposure time required, compared to a fraction of a second at present. Prof. Goodspeed, of the Department of Physics, University of Pennsylvania, began diagnostic examinations very shortly afterwards. Thus, diagnostic work began in the hands of physicists, as would be expected. As the first work was purely technical, and depended almost entirely upon a knowledge of the use of induction coils and the peculiarities of the then most inefficient roentgen-ray tubes, combined with the ability to develop photographic plates, the procedures were relegated to nonmedical men quite extensively, as, for example, laboratory technicians and even institutional druggists. This was unfortunate in a way, but was a necessary consequence of the lack of knowledge of future possibilities. Had it been a universal practice, the progress of radiology would have been materially retarded. Fortunately many physicians took up the work, and began to specialize in it. As a result, ra-

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‡ The author is deeply indebted to Dr. Percy Brown for many valuable references taken from the very complete historical sketch embodied in his chapter on Radiologic Diagnosis.

diology has become a very complex specialty which depends upon the physicist to solve new physical problems as they are constantly arising, and upon the manufacturer for the development of new apparatus to enable one to meet the growing diagnostic and therapeutic requirements. Radiology should be practiced by those who have had highly specialized training. The radiologist must possess a medical degree because he is to practice medicine. He must have served at least an internship before receiving his special training. This must include, primarily, a study of physics as it may apply to his future problems and a thorough knowledge of the construction and manipulation of roentgen-ray apparatus and the therapeutic application of radioactive substances. A thorough knowledge of anatomy and of many physiologic problems is imperative for constant application. Pathologic knowledge is particularly important, for the roentgenogram is a portrayal of pathologic changes in the living subject, and the treatment of cancer and other conditions demands a thorough familiarity with their histologic abnormalities. Finally, experience in radiology must be correlated with a general knowledge of clinical diagnosis as applied to medicine, surgery, and all the specialties to make the radiologist worthy, as he should be, of being regarded as a consultant in diagnosis and capable of treating diseases in which irradiation therapy is applicable.

These facts are stressed because they are not sufficiently well realized by the medical profession as a whole. Remember we are discussing the unusually rapid progress of the newest specialty in medicine. Many physicians and a large part of the lay public are inclined to regard the procedure of making roentgenographic exposures as the essential part of diagnosis, possibly in many instances because of its mysteriousness. As a matter of fact, this is purely a technical operation which of necessity is now left, in the busy office or institutional department, in the hands of trained technicians, for the reason that the radiologist's time is entirely taken up with the more important duties of interviewing patients, directing examinations, making interpretations, consultations, working out new problems, and keeping in touch with the voluminous literature.

At many periods in the development of radiology, we have often thought the limit of its scope had been reached, only to be surprised by the opening up of some new and important field. This will probably always be the case because of the complexity of the sources of new powers and new ideas and their applications to unused opportunities. In this respect we must give due credit

to those physicians who are not radiologists but realize the necessity for additional diagnostic and therapeutic aid. This has been particularly exemplified during what we might term the "injection period" by the promotion of retrograde and intravenous urography, cholecystography, and ventriculography and encephalography. The greatest boon to cancer therapy, aside from the development of apparatus and technic, has been the grading of the tumors according to radio-sensitivity by pathologists and the determination of necessary dosage and the means at our command of administering it by coöperation with pathologists and biophysicists.

In the diagnostic application of roentgen rays there have been very striking and successful physical and physiologic evolutions of the inventive mind which have ushered in new periods of most extensive development. Among the most important of these should be mentioned the early devising of the stereoscope and the methods of stereoscopy by Elihu Thomson and Mackenzie-Davidson, the production of intensifying screens as a means of shortening exposures, the successful application of the principles of the hot cathode tube largely through the efforts of Coolidge, the satisfactory contrivance of the Bucky grid in the Potter-Bucky diaphragm and, as previously mentioned, the highly important products of the "injection era." The fluoroscope is an essential device which has practically always been with us and, from time to time, has superseded roentgenography in importance and as a means of correct observation. In order to clarify essential steps in development of roentgen diagnosis, it is necessary to present a classification of possibilities as they arose.

The location of foreign bodies, the first application of roentgen rays in this country, was developed largely as an essential adjunct to medical services in warfare. Our first national experience in this connection was in the Spanish-American War, and even then it was of considerable value, but more so a little later in the Philippine campaign. Biplane roentgenography was the first method developed for localization, followed quickly by stereoscopy when indicated. World War requirements of speed, ease, and accuracy gave a tremendous impetus to the development of new procedures, and those embodying fluoroscopy took precedent in the employment of biplane, parallax, nearest point, and triangulation methods. Several hundred of the latter were devised during the progress of the war. Of equal importance in peace times was the development of both opaque and nonopaque foreign body localization in the air passages and esophagus.

Grier, in 1915, described biplane fluoroscopy in association with Jackson as an essential aid in the bronchoscopic removal of opaque foreign bodies from the air passages. In the second decade of this century, Manges, collaborating with Jackson, placed all the roentgen diagnostic features of opaque, and, especially, nonopaque, foreign bodies in the air passages definitely upon an easily workable basis.

The diagnosis of fractures was the second primary utilization of the newly discovered roentgen rays. This use has developed into an essential factor in the treatment of all bone and joint injuries. Aside from its aid in the detection of obscure fractures, especially near joints and in the carpus and tarsus, roentgenography has been responsible for the discovery of many little known or even unknown fractures, such as the head of the radius, styloid process of the ulna, and posterior tibial lip fractures at the ankle. The lateral view of the spine brought into prominence the frequency of spondylolisthesis and the crushing fractures of the vertebral bodies, the true nature of the latter injuries having long been clinically obscured by such terms as railway or traumatic spines or similar meaningless appellations.

Roentgenography in joint diseases has been highly satisfactory in the detection and observation of the specific inflammatory diseases and a few of the rarer conditions such as loose bodies and, more recently, hemophilic joints, osteoarthritides and osteochondritis dissecans. Goodspeed aided Willard in the diagnosis of a tuberculous hip during the first few months' period following the discovery of roentgen rays. While the roentgenogram has been most useful in showing the joint changes in the nonspecific arthritides, it has not been very enlightening in the etiologic differentiation.

Bone tumor diagnosis has been of very gradual development, especially in respect to its accuracy. The diagnosis of osseous tumors, and especially the differentiation between benign and malignant growths, must depend almost entirely upon the roentgen examination, hence the formation of the Bone Tumor Registry to aid in the accuracy of diagnosis through correlation of histologic features and roentgenographic appearances.

Bone diseases comprise a very important field for roentgen diagnosis. Listing them on the basis of the classification selected by Brown as due to infections, intoxications, prenatal influences, disturbances of innervation, disorders of metabolism, internal secretion, growth or nutrition, parasitic diseases and those of uncertain

etiology, we find that the characteristic features of infectious disorders are fairly well established, and are becoming more so for all the others with added and correlated experience. The latest recognized useful result of correlation is the establishment of a connection between certain bone lesions and excessive parathyroid action.

The urinary tract has been slow to yield, but has finally been fairly well conquered, especially from the standpoint of surgical conditions and infections. Naturally, urinary calculus was the first condition attempted, being in reality a form of foreign body containing, in most instances, some inorganic substances in concentration. MacIntyre of Glasgow was the first, in 1896, to obtain the shadow of a renal calculus in the living subject. Most of us of more mature years are familiar with the pioneer work of Leonard in this country, along this same line, and those of us who knew him well marveled at his almost uncanny success in diagnosis in the early years. Naturally the diagnosis became more accurate with improvement in technic. The radio-opaque catheter was a great aid in the elimination as sources of error of extraneous shadows from the course of the ureter. Retrograde pyelography was first attempted with bismuth suspension, and this opaque medium was quickly abandoned because of the difficulty of elimination. It was followed by the use of silver colloids which were found dangerous in some instances because of pyelovenous back flow and resulting embolic disturbances. Solutions of high atomic weight metals were next employed, beginning with thorium nitrate and continuing at the present day with sodium iodide, a perfectly safe agent.

Intravenous or excretory urography may be said to be the culmination of the work of many investigators, dating back to 1923 when Rowntree, Osborne, Sutherland, and Scholl first demonstrated that intravenous injections of large doses of sodium iodide resulted in the visualization of various portions of the urinary tract when examined roentgenologically. Sodium iodide proved to be too toxic for general use. Many combined forms of iodine were subsequently tried by investigators such as Roseno and Hryntschak, but none as ultimately successful until Swick, working in von Lichtenberg's Clinic, brought the method into practical use with a substance subsequently known as uroselectan which had been discovered and modified by Binz and Raeth. The method was first popularized in this country in about 1930. The intravenous method has revolutionized urinary tract examinations. It is a functional test when carefully interpreted. Together with the judicious use at

times of retrograde urography it is extremely valuable in the diagnosis of hydronephrosis, tumors of the kidney, anomalies of kidney and ureter, calculus, tuberculosis, and other inflammatory renal conditions. Direct injections into the bladder with the solutions used for retrograde pyelography in the order of sequence up to silver iodide or sodium iodide, and even air injections have been most valuable in the diagnosis of vesical tumors, diverticula, and a few other conditions.

The chest is one of the most important and the most interesting parts of the body for roentgen study and diagnosis. Practically every intrathoracic condition is now included in the diagnostic procedure. The first observations, at least in this country, were instituted by Williams in 1896 on the estimation of the size of the heart by fluoroscopy. This was followed by a study of diaphragmatic deformities and movements, which observations are still often found to be the key to the diagnostic situation, especially with subdiaphragmatic and liver abscess. The fluoroscope remained the only means of satisfactory thoracic investigation for some years, owing to the unavoidable effects of respiration and heart movement because of the necessarily long exposures required for roentgenography. Few of us give due credit to Williams for the skill and accuracy of his early fluoroscopic studies. Unfortunately the procedure lasted many years without adequate protection, and was one of the important factors which has been responsible for so many martyrs in the cause of radiology and its advancement. Kassabian and Leonard in our own city were among them, and the recent death of Baetjer in Baltimore was no doubt due in a large measure to his pioneer efforts in chest fluoroscopy. In 1902 to 1903 the first American short roentgenographic exposures during a breathing period were made by the aid of intensifying screens, and then began a wider application of this means of diagnosis; but the advent of the transformer and rectifying type of machine and the hot cathode tube devised by Coolidge marked the real beginning of exact diagnosis of pulmonary lesions, aided still later by the duplitized film for the use of double intensifying screens. Then began a period in which experience was to be gained by the study of the normal and the application of pathologic knowledge in the interpretation of the evidences of diseases. Cole followed closely by Dunham were responsible for the beginning of accurate diagnosis of pulmonary tuberculosis, and the greatest dependence is now placed upon the roentgen examination at all stages of the condition and in

both childhood and adult types. Lung abscess now requires roentgenologic studies not only for diagnosis but also for localization for purposes of operation, bronchoscopic drainage, and to determine the effects of treatment. The lateral view, introduced as a routine procedure practically during the past decade, is indispensable for this purpose as well as many others. The roentgenogram is the most important means of determining the presence, extent, and progress of pneumoconiosis. Atelectasis caused by foreign bodies, primary cancer, viscid bronchial secretions, especially if associated with diminished or absent cough reflex (massive atelectasis) or any other form of complete bronchial obstruction, has very definite and characteristic roentgen signs. Primary lung cancer presents no characteristic appearance, but the condition is to be suggested to the cancer-minded individual and the final diagnosis is dependent upon bronchoscopic findings. No intrathoracic tumor case is now finally diagnosed without the aid of the roentgen examination. Pneumonia, interstitial pneumonitis, bronch sinusitis, and a host of other conditions now require such examinations for diagnosis or verification or to assist in a differential diagnosis. Much has been learned about Friedländer pneumonia in patients who live sufficiently long to recover. The determination of bronchiectasis is usually not definite without the addition of bronchoscopy. The extent of it is readily determined after the instillation of iodized oil. This and bismuth insufflation, both proposed by Forestier and Sicard, are often valuable for other intrapulmonary conditions. The thymic situation of infancy, greatly overexaggerated of late, but evidently not a depression disease, is still in an unsettled state for many reasons. Finally, the cardiologist can vouch for the value of roentgen studies in many heart conditions.

In the esophagus, the roentgen examination has superseded all other methods of study, except direct endoscopy in certain conditions. Space forbids entering into any discussion of the history of development of gastric studies. Suffice it to say that the roentgen examination is now regarded as of paramount importance in the diagnosis of gastric carcinoma, gastric and duodenal ulcer, marginal and jejunal ulcer, benign tumors of the stomach, syphilis, pyloric spasm, adhesions, and a few other less common conditions. The barium enema has become the most accurate means of early diagnosis of carcinoma of the colon, if we can call any diagnosis of that condition early in many instances. Benign tumors such as polyps are very frequently found by careful technic. Diverticula are easily dem-

onstrated. Colitis can be diagnosed provided the changes in the bowel wall are marked, but many patients are diagnosed as having colitis when it is not present. Any case of intestinal obstruction requires a roentgen examination. Appendical adhesions may be detected, but a definite and unqualified diagnosis of chronic appendicitis is seldom if ever justifiable.

The head is a part of the body about which much can be written, but only scant mention can be made of the conditions in which the roentgen examination is applicable. Accessory nasal sinus disease and tumors and mastoid disease are constantly being more accurately diagnosed and roentgen studies being more and more depended upon. Dental roentgenography has become indispensable. Brain tumors are detected by secondary effects unless calcified. Aid can be given in so many cases that the roentgen study has become a routine diagnostic procedure in every tumor suspect.

The gallbladder has become an organ for prolific study during the past few years. Very early in the history of roentgenology it was determined that the detection of gallstones depended upon their calcium content. Improvements in technic raised the percentage of calculi casting shadows slightly, but the majority were undetected and negative findings were worthless. It was the roentgenologist's dream that some day some one would discover a substance which would be excreted with the bile and render the gallbladder visible. Finally, in 1924, Graham and his co-workers came to the rescue with the gallbladder dyes. After careful studies in cases examined, they finally decided upon the compound sodium tetraiodophenolphthalein as the best, although the isomer sodium phenoltetraiodophthalein is usually now preferred. These have been used, apparently with equal success by various workers, either intravenously or perorally. The dye is

excreted by the liver, reaches the gallbladder with the bile and there concentrates with the latter sufficiently to cast a definite shadow of the organ if the liver works and the path is clear. It should be borne in mind that the examination, *per se*, is a *functional test* and not a definite indicator of disease. As an aid in the detection of calculi it far exceeds the older direct examination for them. The old 4 to 10 per cent of stone findings by various examiners has been raised to the neighborhood of 90 per cent of deficiently functioning gallbladders or stones. Even small papillomatous tumors have been found by this new procedure by Kirklin of the Mayo Clinic. The accuracy of the examination is increased by combining with it a gastro-intestinal study.

Obstetrics has been aided in the determination of single or multiple pregnancies and in accurate pelvic measurements. The relative sizes of fetal head and pelvic canal can be accurately estimated. In gynecology, some important work has been done in determining patulousness of the tubes and the presence of certain uterine conditions by intra-uterine injection of iodized oil.

Finally, arteriography is one of the latest fads. Sodium iodide is the solution used for injection into the vessel. Even brain tumor suspects have been examined immediately after the injection into the carotid. Needless to say the procedure is not without risks.

As roentgen diagnosis has been such a long subject in itself, space forbids entering into any discussion of irradiation treatment except to sum up by the statement that in cancer the only recognized forms of treatment at present are surgery and the use of roentgen rays or radium. The subject of irradiation therapy is equally as long as that of roentgen diagnosis. The list of conditions amenable to treatment is constantly growing.

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VAGINAL DISCHARGES AND THEIR TREATMENT*

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In considering the cause of vaginal discharges we must first be familiar with certain facts concerning histology and physiology of the lower genital tract. The membrane of the vaginal canal is covered with stratified squamous epithelium possessing a glycogenic function, with a characteristic submucosa and no glands. The

cervical canal is lined by a mucous membrane covered by high columnar epithelium and contains racemose glands with no submucous layer and a very thin basement membrane. The stratified squamous epithelium of the vagina and the columnar epithelium of cervix meet abruptly at the external os. As the mucosa of the cervix approaches the internal os of the uterus it more nearly resembles in histologic form the endo-

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metrium. The mucous membrane of the cervix, however, does not undergo cyclic changes which is a characteristic of the endometrium. The secretion from the cervix is mucus with a constant alkaline reaction of pH 9.2.

The normal cervical mucus is moderate in amount and just fills the cervical canal; it is clear and glistening and contains only epithelial cells.

The appearance of the normal vaginal canal during the reproductive period is light pink with no mottling along its whole surface. The secretion from the cervix supplies the moisture for the vaginal secretion, which is a moist white curdlike material composed of cast off epithelium and many bacteria. The cervical mucus mixes with the desquamated epithelium of the vaginal canal, and by some complex chemical mechanism between the glycogen of the vaginal epithelium and the cervical mucus is developed lactic acid which maintains the normal vaginal acidity near a pH 6.7. Much work has been done upon the bacterial flora of the vaginal secretion. All observers agree that bacillary forms predominate, though cocci are not infrequently seen. It is thought that the normal bacillary flora is responsible for the evolution of lactic acid from the glycogen of the epithelium. From a clinical point of view we may consider that the normal vaginal secretion when examined microscopically after gram staining consists of epithelium, a large number of gram-positive long and thick bacilli or döderleini bacilli, and no pus cells and an occasional form of cell which has not been classified. This unclassified cell is round in shape without nucleus and stains darkly, my thought is that it may be an atypically staining epithelial cell or a yeast cell. Observation has shown that the more the flora from the vagina deviates from the so-called normal the more the tendency of leukorrheal discharge.

After this brief discussion of what is considered the normal vaginal secretion we shall discuss some of the more common leukorrheal discharges which the physician is expected to relieve.

The vaginal discharges seen in virgins soon after puberty are often thought by the anxious mother to indicate some general physical weakness in the girl. The discharge may make the girl self-conscious and unless treatment is simple and direct may cause considerable psychic trauma to the patient. The cause of the discharge is most frequently a congenital eversion of the cervix, the eversion causes the cervical mucosa to be exposed to the acid vaginal secretion, a hypersecretion from the cervix follows with the

symptom of a leukorrheal discharge. Usually the vaginal flora in these patients is normal and only the vaginal secretion is increased.

Treatment of this type of discharge is most easily carried out under anesthesia, the everted mucosa may be destroyed by coagulation or cauterization. This procedure may be done through a large Kelly cystoscope with the patient in the knee-chest position or through a small virginal speculum, without rupture of the hymen.

The same mechanism which causes vaginal discharges in the virgin is responsible for the leukorrhea which follows the puerperium unless infection is present. We all know of the trauma of the cervix which accompanies labors and unless the cervix is completely healed during the puerperium some eversion of the endocervix persists. The hypersecretion caused by the everted cervix is responsible for the leukorrheal discharge. Early there are no histologic changes which indicate infection of the cervix and there is no change in the vaginal flora. The treatment of this type of discharge is destruction of the everted cervical mucosa by linear cauterization or coagulation. If the simple eversion of the cervix is not corrected, infection of the cervix and the histologic changes characteristic of endocervicitis, cervicitis, hypertrophy, and cystic degeneration will cause a persistent vaginal discharge and the normal bacillary forms will not predominate in the vaginal secretion.

Coagulation or cauterization is required when infection and degeneration of the cervix is present. The treatment should be extensive enough to destroy the cysts and the granulations in the lower part of the cervical canal. Coagulation or cauterization may be done as an office procedure without anesthesia not less than six weeks following delivery. The precaution to observe is the avoidance of too extensive treatment and the consequent stenosis of the cervix. Until one has acquired some experience in this procedure it would be well to do too little rather than too much at one treatment.

Immediately after cauterization or coagulation there is some increase in the vaginal discharge; sloughing of the cauterized area occurs, and the odor of the discharge becomes offensive and there is some bleeding at times. The bleeding is seldom troublesome and seems to be more frequent following the use of coagulation. Healing is complete usually in about three weeks. A bicarbonate of soda douche may be used to clean the vagina of the secretion and its offensive odor. Hot douches and inactivity of the patient may be necessary to control the bleeding.

The discharges caused by latent gonorrheal infections are sometimes quite troublesome, and before discussing the treatment of this type of discharge, I should like to make a few remarks which may be a guide for the management of the acute infection which preceded the discharge. According to most authorities acute gonorrhea is a self-limited disease. The ideal in managing patients with acute gonorrhea should be the prevention of pelvic inflammatory disease and overcoming the tendency for the patient to remain infectious. This conception of acute gonorrhea implies that all activities of the patient and treatment should be so limited that there is no opportunity of transferring the infection from the cervix to the uterine cavity. Coitus, swimming, diving, and physical activities which increase intravaginal pressure predispose to pelvic extension of the infection. Treatments such as the application of antiseptics to the cervical canal on cotton applicators are apt to cause extension of the infection to the peritoneum. Not only will such treatments have little influence on limiting the course of the disease since the organisms are already within the tissues and cannot be affected by local antiseptics but actually may do harm by causing upward extension of the infection. I usually prescribe a simple cleansing douche for the patient once daily and instruct her not to use more pressure than is secured by having the douche bag eighteen inches above her prone body.

The acute symptoms usually subside in about six weeks and the infection becomes localized in the Skene's tubules, the urethral crypts, the cervix, and occasionally in the Bartholin's glands. The vaginal discharge of latent gonorrhea may be a continuation of the discharge from the acute attack or it may develop sometime afterwards. It is caused by an improperly draining infection of the Skene's tubules, the periurethral glands and the cervix after the reaction from the acute infection has subsided. So long as these areas of latent infection persist the patient may be infectious and conscious of a leukorrheal discharge and the vaginal secretion will not be normal. Treatment of these focal areas of infection should consist of complete drainage or destruction. Destruction is the least time consuming for the patient and most direct method of restoring her to normal. After locating the urethral tubules with probes they are coagulated by using a small pointed electrode which is fitted into the tubule, the current is left on only for a few seconds. The urethra may be anesthetized sufficiently for this purpose by inserting into it a cotton wrapped applicator containing 10 per cent solution of cocaine for five minutes,

or by injecting 3 c. c. of 1 per cent novocaine solution about it. Poorly draining areas of infection in the cervical canal can be destroyed by various types of operation or with a cautery or coagulating electrode such as the Hyams' loop, the Cherry electrode, or the ordinary coagulating electrode. The important thing to bear in mind is that the mucous membrane in the lower one-third of the canal should be destroyed in such a way that it will be replaced by squamous epithelium without stenosis of the cervix. More than one treatment will be necessary to destroy all these focal areas. It is often difficult to decide if the patient has been cured of her infection. This is determined by inspecting the urethra and the cervix for granulations and examining smears from these parts for pus cells 48 hours after mild trauma or stimulation. If granulations are absent and no pus cells are seen in the secretion from the urethra and cervix, infection is assumed to be absent and the patient considered cured. This is a more reliable means of determining a cure than the examination of smears for organisms.

Occasionally, patients are seen with a vaginal flora composed largely of the yeast fungi. The discharge from these patients is quite irritating and causes a marked pruritus and irritation about the vaginal introitus. The vagina on inspection is filled with a yellow coagulated secretion. Stained smears of this secretion show the mycelia and spores of the yeast fungus which characterize it. For this type of leukorrhea a pint douche containing a tablespoonful of sodium perborate used every 24 hours will relieve the patient and change the bacterial flora of the vagina with relief of her symptoms in a few days.

Within the last few years, gynecologic literature has contained many articles about nonspecific vaginitis. Many patients complaining of this condition have no obvious focal areas of infection in the lower genital tract and the cervix shows no eversion. The vaginal vestibule and canal show much reddening and mottling which become progressively more extensive as the cervix is approached. These patients complain of a profuse offensive vaginal discharge which frequently causes a very annoying pruritus about the external genitalia. Vaginal smears when examined without staining contain many organisms and the trichomonas vaginalis. Stained smears contain pus cells, gram-positive and gram-negative cocci and relatively few epithelial cells. The only constant findings in these patients are the inflammatory reaction and the absence of the normal bacillary vaginal flora. The cause for this has not been satisfactorily ex-

plained; it may be of endocrine or allergic origin.

In treating patients with this type of discharge, try to develop what is thought to be the normal vaginal flora; to accomplish this, the patient is instructed to use a cleansing douche of bicarbonate of soda every 24 hours; then plant in her vagina a culture of viable döderleini bacilli. Dr. Claude Brown and I have isolated these organisms from the vagina and have grown them in pure culture for this purpose. A preliminary report of this method of treatment was made in the *Journal of Obstetrics and Gynecology*. Since that report we have continued to use this method and find that it is very valuable so far as relief of symptoms is concerned. If used over a considerable period of time the vaginal flora in most instances becomes normal and remains normal. The idea of this treatment is to restore by a physiologic means the normal vaginal flora.

After this brief discussion of the more common types of leukorrhea, I should like to outline a few simple studies which are necessary to make a diagnosis. First, the urethra should be inspected for large and infected urethral tubules, a slight reddening about the urethra and after massage, the presence of secretion which contains pus is absolute evidence of infection. Sometimes, there is present a milky secretion which contains only epithelial cells; it is, therefore, important to examine this secretion microscopically. The vaginal canal should be inspected and smears of the vaginal secretion should be taken for study, the relative number of pus cells and epithelial cells should be noted, and the bacterial flora should be observed. If the vaginal secretion contains only a few pus cells and a predominating amount of döderleini bacilli it may be considered normal. If the döderleini bacilli are absent in the flora, it will consist of many various types of organisms. The cervix should be inspected for eversion. The mucous secretion should be studied, the amount, viscosity, and color should be noted; after a thorough cleansing of the external os, it should be examined microscopically to determine the presence of pus cells and organisms.

If these studies are routinely followed with each patient, some abnormality will usually be found to account for the symptom of leukorrhea.

In conclusion, the importance of the normal bacillary flora of the vagina should be stressed. Most vaginal discharges can be classified first, as a simple hypersecretion from the cervix without change of the vaginal flora; second, as a

focal infection of the lower genital tract which changes the vaginal flora; and third, as an unexplained change in the vaginal flora with the symptom of leukorrhea.

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ABSTRACT OF DISCUSSION

BROOKE M. ANSPACH (Philadelphia): There seem to be two outstanding factors in the chronicity of leukorrhea: (1) The persistence of foci of hypersecretion or of infection; and (2) an abnormal vaginal flora. (1) The persistent foci are in Skene's tubules, the glands of Bartholin, or the cervix. (2) The abnormal flora are associated with the specific (often gonorrheal) infection of the infected foci or they are secondary to the entrance into the vagina and the growth there of various organisms, notably the trichomonas vaginalis, yeast fungi, and Vincent's angina.

To treat leukorrhea with success, an accurate diagnosis must be made and this involves not only the examination of stained smears of the discharge, but also the immediate examination of a hanging drop. Persistent foci in Skene's tubules or Bartholin's glands are simple to eradicate—excision is promptly effectual. Cervical infection is difficult to cure without some destruction of the cervical mucosa. Cervical infections are benefited to a certain point by heat, diathermy and hot douches, and by copper ionization; dilatation of the external os or division of the cervical lips to ensure free drainage is also important. If the trouble persists in spite of these first aids, destructive cauterization or radio knife excision of the cervical mucosa is required. The entire mucosa need not be destroyed or removed; usually if one-half to three-fourths of it is eliminated, the discharge produced by the remaining one-fourth is so much less that the symptoms abate and the patient is satisfied.

Little can be accomplished in restoring the normal flora until invading organisms have been destroyed. For a large majority of cases nothing is superior to flooding the vagina and thoroughly mopping the cervix, introitus, and external genitalia with the nitrate of silver in from 2 to 10 per cent solution, the mucosa being carefully cleansed of discharge before the silver is applied, the patient preferably being in the knee chest position. For Vincent's angina, use potassium chlorate; for thrush fungi, gentian violet and perborate of soda, and for the trichomonas vaginalis, a 2 per cent solution of methylene blue.

It is easy to control the symptoms but often difficult to bring the patient to a point at which treatments and douches may be discontinued without a recurrence of the trouble. It is here that the question of a reestablishment of a normal vaginal flora comes up. Once the invading bacteria have been destroyed the normal bacterial content may return spontaneously and promptly in many cases; in others there is some delay. The reason for the delay is not always apparent. One might ask whether the persistent use of antiseptic douches may not hinder the reestablishment of the normal flora. Here a plan like that suggested by Dr. Mohler seems plausible. It consists of implanting into the vagina a pure culture of the döderleini bacillus, obtained from a healthy source, with sugar of milk, which favors its growth; this development of a new flora is promoted by the use of nothing more potent than a 0.5 per cent solution of lactic acid. I have tried Dr. Mohler's plan in many cases and have been pleased with the results.

DIAGNOSIS AND TREATMENT OF STERILITY IN WOMEN*

BROOKE M. ANSPACH, M.D., PHILADELPHIA

The responsibility for the barren marriage seems to be equally divided. So far as the woman is concerned the anatomical requirements of successful breeding include those necessary for reception of the semen into the vaginal fornices, a normal reaction of the vaginal and cervical contents, a cervix whose os comes into direct contact with the penis during coitus or dips into the seminal pool afterwards, a cervical mucus without excessive tenacity or without infection and its products, an unobstructed cervical canal, an adequate uterine cavity, open tubes, free ovulating ovaries, and healthy ova.

In the barren woman, very often more than one abnormality is present: For example, endocervicitis is commonly associated with salpingitis; malformation of the cervix and stenosis are frequently combined with endocrine disturbances.

Barren women may be separated into two groups—in the first, there are well defined organic lesions to account for the sterility; in the second, well defined organic lesions are lacking.

It is not our intention to speak of the first group for it has received adequate attention and the diagnosis and treatment of organic lesions are thoroughly established. We wish to direct attention to the second group in which organic lesions are ill-defined or entirely lacking, and especially to some features of sterility in women to which comparatively little attention has been paid.

We wish to speak of the ovum itself. As there is a difference between virile and weak sperms (as the studies of Moench and others have shown), so there is a difference between healthy and unhealthy ova. Even more important, from a practical standpoint, in the individual case, may be the question whether there are any ova at all.

DIAGNOSIS

The presence of ova is more difficult to determine than the presence of sperms. Although ova have been isolated under especially favorable conditions as when the tubes are exposed during the course of an operation, a search for them is of course impracticable under ordinary circumstances or as a routine.

The probability of ovulation and the presence of an ovum must be estimated by: (A) The gross examination of the ovaries; and, (B) by

the indications of normal ovarian function as exhibited by the individual.

A. *Examination of the Ovaries.*—Reynolds and Macomber, from observations during the course of operation, contrasted the ovaries of fertile and sterile women: "The ovaries of a fertile woman are, then, characteristically organs of uniform outline which show not more than one thin-walled and projecting follicle or corpus. They have throughout a characteristic soft and elastic feel when taken between the fingers, except when a single mature follicle or active corpus distends one portion of an ovary and yields its characteristic tactile sensation at that point.

"In contrast, the ovaries of sterile women usually show on gross examination the presence of numerous thin-walled projecting follicles, or of numerous small, imperfect looking corpora, or both. They are of lobulated outline, and on tactile examination between the fingers are tense and resistant in feel over the whole or at all events the greater part of the organ." Though it is true that the gross appearance of an ovary cannot be taken invariably as an index of its function, every operator will recall these two types and to them he will add another type, the ovary that is ill-developed or atrophic and lifeless in appearance.

Reynolds and Macomber's description of the ovaries of the sterile woman tallies well with the knowledge we have acquired recently of the association between a failure in ovulation and the presence of atretic follicles as well as of imperfectly developed, cystic or persistent corpora lutea.

Is it possible during the ordinary bimanual palpation to distinguish between the good and the bad ovary? One feels, *a priori*, that he would not expect to do so by a single palpation but that repeated palpation, if the ovaries were normal, might at least show periodic variations in size. Even if the ovaries functionate normally, the recognizable difference at various times in the monthly cycle may be so little as to preclude any positive recognition of ovulation. For this and other reasons, palpation may be dismissed from any but casual consideration and at best it affords no more than contributory evidence.

B. *Indications of Normal and of Abnormal Function of the Ovaries.*—How, then, may something wrong with ovulation or the ovum in a given case of sterility be detected? Partly, by being unable after a searching investigation to find other causes of sterility, but mostly by the

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additional evidence of endocrine disorders. There are certain physical characteristics and certain disturbances of function of the endocrine subject—which in an extreme degree may stamp a given woman as belonging to a certain type as, hyperthyroid, hypopituitary, or hypo-ovarian, *etc.*; but in a moderate or a slight degree may be suggested only.

The periodically recurring evidence of endocrine activity, that normally takes place during the reproductive period, furnishes the most reliable testimony.

Most endocrine disturbances as a rule are accompanied with some abnormality of menstruation; this may be of almost any form. The most usual perhaps, is delayed puberty, oligomenorrhea, or amenorrhea, and these deficiencies in the frequency and the amount of the flow for a long time have been taken as the outstanding sign of ovarian failure. It is not an unmistakable sign because pregnancy does occur in those who have never menstruated and during the amenorrhea of lactation. Still these are rare exceptions and the clinical fact stands out that a majority of our endocrine sterilities are associated with a deficiency of the menstrual flow.

In recent years, however, attention has been drawn to the menorrhagia that is so commonly a symptom of hyperplasia of the endometrium, in itself an evidence of abnormal and deficient ovarian function; here often the menorrhagia is preceded with amenorrhea and sometimes the two alternate, the woman first being distressed by a lack of bleeding and then annoyed by too much of it—one follows the other and the periods are never right.

Though it has heretofore been taken for granted that when a woman menstruates, she ovulates and vice versa, we have recently begun to realize that bleeding from the uterus even at more or less regular intervals and in more or less normal amounts does not invariably indicate ovulation. In other words bleeding without ovulation may take place in the human—just as it occurs in the monkey. From this it follows that one is not justified in concluding that because a woman bleeds at regular intervals she ovulates.

Judgment in the individual case may be based very properly not only on the clinical evidences of endocrine disturbances, but also on certain tests which now are at hand for determining the presence of the follicular and the anterior pituitary hormones, in the blood, and the normal premenstrual changes in the endometrium. As a rule the follicular hormone test is positive in the normally ovulating woman during the latter part of the menstrual cycle. The anterior pituitary

test is negative, unless there is serious, probably irremediable, ovarian failure; exceptions are noted during pregnancy, at the menopause, occasionally in severe endocrinopathies especially of the pituitary type, and sometimes in malignant disease of the genitalia.

It seems quite certain, however, that the most reliable indication of normal ovulation and the most reliable assurance that bleeding is truly menstruation in the fullest sense is found in the histology of the endometrium. One may determine the activity of the ovary in this way quite accurately, for the histologic changes of the premenstrual stage of the endometrium do not take place unless a normal corpus luteum (elaborating progesterin) is formed and a normal corpus luteum is not formed unless ovulation occurs.

TREATMENT

The treatment of the woman in the barren marriage should be predicated upon the assurance that the husband is capable of procreation and that any abnormalities in him are receiving adequate attention.

We shall pass over the instruction relative to coitus as well as the treatment of well defined organic lesions and direct our remarks to those methods which have been suggested for the correction of disturbed ovarian function. One bears in mind the immediate physiology of the ovary, a twofold one of producing both ova and an ovarian secretion. It is necessary to remember also the very important control of the ovary by the endocrine glands and especially, of course, the anterior pituitary and the thyroid. For it is upon a knowledge of the influences producing normal function in the ovary, that attempts to restore disturbed function should be based. They may be discussed under several heads.

Food.—In view of the striking influence of certain foods, vitamins, upon the fertility of test animals, some attention should be given to the diet of both husband and wife.

Mendel describes vitamins as follows: "The attempts to support animals on mixtures of isolated milk protein, plenty of fat and carbohydrate to supply the energy requirement, and the inorganic elements present in milk invariably resulted in failure. As small additions of certain 'natural foods' to such inadequate rations were effective in promoting nutrition, it gradually became apparent that substances other than the familiar proximate principles or foodstuffs also are indispensable. Such substances were presently designated vitamins."

Vitamins A, B, and E seem to be especially

important for promoting fertility in experimental animals. Vitamin E particularly, discovered by Evans and Bishop, seems to be essential. The absence of vitamin E has been suggested as a presumptive cause of repeated abortion.

It is quite important that the barren couple should know of these vitamins and their food sources. It is also worth while to inquire into dietary peculiarities and so to correct them that a well balanced fare, containing a proportion of all food stuffs is provided.

Attention may be drawn at this point to the fact that obesity is very often accompanied with menstrual disorders and sterility. Whether one or more of the endocrine glands are involved in the cause, the empirical administration of thyroid and a limited diet are of value in reducing the weight, regulating the periods and promoting conception.

Endocrine Treatment.—The ultimate aim of endocrine treatment is to balance endocrine function: We may say that stimulation usually is required although we remember that in the case of the thyroid, depression sometimes is necessary. Attempts to influence the thyroid, the anterior pituitary, and the ovary may be made with the following:

(A) Endocrine substances prepared from the organs or excretion of healthy animals (thyroid, pituitary, ovary).

(B) Roentgen-ray exposure (thyroid, pituitary, ovary).

(C) Operative or manipulative treatment (thyroid, ovary).

A. Thyroid.—Thyroid substance is of undoubted value; while it more properly may be reserved for the cases in which the basal metabolic rate is low, it need not necessarily be limited to them. If there are general symptoms suggestive of hypothyroidism, it may be employed and even without it may be given empirically in well tolerated dose because it often helps in menstrual disorders of any type.

Roentgen-ray treatment may be used in hyperthyroidism, if the administration of iodine does not control the symptoms. Sometimes iodine proves to be helpful even if a positive diagnosis of hyperthyroidism cannot be made. Surgical removal of parts of the thyroid is of course limited to those patients with well-marked and otherwise uncontrollable hyperthyroidism and may be considered only as an incidental treatment of sterility.

Anterior Pituitary and Ovary.—When the rejuvenation of the shrunken ovaries of senile mice with implants of the anterior pituitary (Jacob Hoffman) as well as the very great changes

in the ovary of the rabbit, produced by the injection of urine from the pregnant woman (Friedman) is recalled, it must be admitted that the ovaries are greatly influenced in experimental animals at least, both as to their physical characteristics and their function by the activity of the other endocrine glands especially the anterior pituitary.

Whether it is possible to influence favorably the physical state and the functional activity of the ovaries in the human being, by the agents now available, has not as yet been determined. The influence of pituitary hormones upon the ovaries in the lower form of experimental animals is so marked that one might feel that nothing more than a suitable pituitary preparation was needed. Whether for the human there must be human pituitary or whether animal pituitary will do as well, is not known; whether the pituitary hormones recovered from the urine of the pregnant woman or the pregnant animal approach in efficiency an extract of the gland itself that sometime may be produced, are interesting conjectures.

There are at present many preparations which are dispensed under trade names that represent the follicular and the anterior pituitary hormones. They are supposed to influence menstruation and ovulation, the development of the endometrium, the maturation of the follicle, ovulation, corpus luteum formation, and menstruation. The first group are those concerned with follicle ripening, the early preparation of the endometrium and ovulation; the second, with corpus luteum formation, premenstrual changes in the endometrium, and either menstruation or, if conception occurs, nidation of the ovum.

Whether these preparations have the same effect upon human ovaries as they have upon the ovaries of experimental animals is very doubtful. The action of the anterior pituitary luteinizing hormone on uterine hemorrhage in women is sometimes so immediate that it cannot be attributed to the formation of lutein tissue. No unquestioned evidence has as yet been obtained in the human. Theelin apparently provoked endometrial growth in a small series of senile (postcastration) uteri subsequently curetted by Werner and Collier and Geist by injecting women previous to operation, found what was thought might be evidences of artificially induced activity in the ovaries.

How valuable these products will prove to be ultimately, remains to be seen; the early enthusiasm over them has waned; it is not certain that they are of any help. If they are used at all, it should be only after a thorough study of the

patient has demonstrated an actual deficiency in function. A full dose should be administered intramuscularly every day during the ten or twenty days preceding the period in each month. Although we may expect stimulation of the ovary from the use of the preparations of the anterior lobe of the pituitary, we cannot expect stimulation of the ovary from theelin; at best it is no more than a substitution product. It is unwise to use any of these preparations indiscriminately; damage to the ovaries has been reported from the prolonged use of theelin in experimental animals.

For stimulation of the pituitary, the roentgen ray may be regarded as a possibility. Whether the exposure of the temporal regions to the roentgen ray for a short time can have a selective stimulating effect upon the anterior pituitary is not assured. It is known that the endocrine glands are peculiarly susceptible to the roentgen ray, but there is not unquestionable indication that the ray ever stimulates; it seems uniformly to destroy.

There is available at the present time some clinical evidence that sex hormones of the anterior pituitary are increased by exposure to the roentgen ray and in attempting to explain the apparent fact one asks whether by destruction or inhibition of certain inhibitory cells (growth hormones) of the pituitary the sex hormones are produced in greater amount; if so, the roentgen ray may be used to stimulate pituitary function on logical grounds. This we do in fractional dose.

The question now arises whether the ovary may be stimulated in any other way than by stimulating the pituitary. Roentgen-ray treatment of the ovary directly has been used with success by Rubin and others. How it is supposed to stimulate ovarian function is unknown; perhaps by its influence on atretic follicles or by destroying persistent corpora lutea or by depressing the activity of cells that inhibit ovarian function. In our own practice, roentgen-ray stimulation of the ovary is not attempted; we feel that the risk of injuring the germ cells and the primordial ova is too great. The only circumstance under which the ovary is exposed to the roentgen ray is when its activity is to be curtailed and this of course finds no place in the treatment of sterility.

Surgical and Manipulative Treatment.—Is there any other way of directly stimulating the ovary? The observation of Reynolds and Macomber on the surgery of the ovary has already been detailed. It is certain that derangement of ovarian function may be coincident with cystic

follicles and with persistent corpora lutea; with either, the ovarian function has reached a stalemate.

Can surgery be of any use whatever in the functionally deficient ovary? Here, of course, the cause may be remote but so far as the local condition of the ovary is concerned, one has to deal with abnormalities in the follicular apparatus and its successor the corpus luteum. Though Reynolds and Macomber voiced a hopeful note in regard to the ignipuncture of the cystic follicle, and to the enucleation of the cystic follicle and the abnormal corpus luteum, they gave an unfavorable prognosis for ignipuncture and resection of the thick capsuled, small cystic, elongated ovaries sometimes seen in the endocrine case. Although these measures may be practiced if the ovaries are already exposed by an operative procedure undertaken for another purpose, abdominal section for this indication alone is out of the question.

Under very similar circumstances and with much the same pathology in the sterile cow, the veterinarian ruptures the cyst or squeezes out the stagnant corpus luteum by laying hold of the ovary through the wall of the rectum. This procedure is followed in a large majority of cases with restoration of ovarian function and the relief of sterility. Though such a plan would be impracticable in the sterile woman, the gynecologist may imitate it with ovarian massage.

The ovary normally develops a follicle, the follicle matures and ruptures, the ovum escapes, the corpus luteum forms, then it regresses unless conception occurs, becomes absorbed, and is replaced with scar tissue. In other words the functional phases of the ovary are accompanied with these recurring physical changes; and an interruption of the function is accompanied with a cessation of the sequence of these changes.

Though the ovary cannot be so compressed between our fingers in bimanual pelvic massage as actually to break the capsule of the ovary with safety—a judicious use of pressure may favor the natural giving away of the atretic follicle at the proper time or loosen up a persistent corpus luteum so that its circulation is disturbed and it undergoes regression.

These considerations are theoretical, and ovarian massage dare be undertaken only by those fully versed in the diagnosis and treatment of pelvic disorders.

The amount of pressure that it is justifiable to exert upon an ovary may be described as a vigorous palpation. The difficulty in formulating a method of estimation is obvious—it is de-

sired to rub the ovary thoroughly but to avoid injury.

Massage of the ovary is not permissible if: (1) There is any suggestion of pregnancy; (2) a considerable change in the size of the ovary from one week to another indicates the normal development of the graafian follicle; (3) there is any bleeding from the uterus whether menstrual or otherwise; (4) there is any probability of pelvic infection.

At first the treatment may be used for a minute at a time—this is gradually raised to five minutes and given once or twice a week. Aside from slight discomfort for an hour or two following the treatment, we have not observed an unfavorable result. Ovarian massage is used only as one of the methods of attack on the stagnant ovary. As with the other methods described, it has seemed to help in some instances.

The results of the treatment of sterility directed toward the restoration of normal ovarian function have not yet been determined. Although these newer methods may never surpass the simple plan of raising the health of the individuals concerned to the highest level, without functional treatment, up to the present we seem to be able to go so far and no further in the relief of the barren marriage. So often an imponderable element, fertility index, physico-chemical influence, call it what we choose, seems to stand in the way. We have a good reason, therefore, to persist in our efforts, for there can be little doubt that the endocrines play a leading part in at least a third of the cases of female sterility.

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ABSTRACT OF DISCUSSION

FRANKLIN L. PAYNE (Philadelphia): Menstruation without ovulation certainly occurs in the monkey, and it is considered that such is the case in some women. This offers considerable in explanation of the so-called functional sterility in regularly bleeding women who, in truth, do not ovulate or menstruate normally. To make a diagnosis of regular bleeding without ovulation, we study the blood of the patient for the female sex hormone or follicular hormone. Dr. Frank demonstrated that in 40 c. c. of blood taken a short time before the menstrual period there is enough of the female sex hormone to produce estrus in a castrated mouse. Dr. Anspach omitted to mention the fact that the urine should be studied at the same time. Occasionally patients will be manufacturing an ample quality of female sex hormone; an abundance will be eliminated in the urine; and yet it will not be detectable in the blood. The theoretic explanation is that either because of the inability of the pelvic organs to utilize this hormone or because of an abnormally low renal threshold, the hormone is eliminated as rapidly as it is manufactured. With study of the blood alone, a negative result will be extremely confusing if the patient is eliminating the

hormone as rapidly as it is secreted. The final diagnostic step is the study of the endometrium just before the time for the menstrual period. In women who are functionally sterile there is often considerable menstrual irregularity. Dr. Anspach spoke about this. For that reason our experience has been that it is difficult to get premenstrual specimens. Dr. Burch has devised a cannula which he uses for taking biopsies of the endometrium. This cannula can be used in the office, and causes little pain. It is introduced into the uterus and by suction a small portion of the endometrium is procured. We are now doing on these patients weekly biopsies throughout a menstrual cycle. This cannula is not recommended for diagnostic purposes in conditions other than study of the physiologic changes in the endometrium.

We agree with Dr. Anspach that thyroid gland is the only endocrine product of whose worth we are at all certain. The anterior pituitary hormone and theelin, or folliculin, are yet to be proved of any value and they can do definite harm. In the administration of thyroid, it is often necessary to give larger doses than are usually recommended. Because of the great variability in the susceptibility of patients to this drug, the dosage should be governed by frequent metabolism readings and by the reaction of the patient. By starting with small doses and gradually increasing to the point of tolerance, the individual's susceptibility is determined and the subsequent dosage is easily regulated.

We have had no experience with massage of the ovaries in the treatment of sterility. The condition is one of multiple cysts of the ovaries which are probably the result, not of a local condition, but of faulty hormonal stimulation. If these cysts are ruptured, since the cause of the condition remains, it is questionable whether normal ovulation would result.

DR. ANSPACH (in closing): What Dr. Payne said about the urine studies is important. I am interested to hear of Dr. Burch's instrument. The question comes to mind whether one would procure enough endometrium; hyperplasia may not be general. In many patients, at least those in whom there is bleeding, one wishes to rule out malignancy, so that the usual thorough curettage perhaps is preferable. It is difficult to perform a test curettage at exactly the right time, that is just before the onset of a period. If disappointed one month we may be successful the following month. If there is no menstruation at all, we take a blood hormone test every week and then do the curettage when the female sex hormone appears. It is possible very often to do a thorough curettage without a general anesthetic.

I am especially interested in what Dr. Payne said about the massage of the ovaries. We ourselves are not sure that it is of any value. He may be right; we may be wrong. Nevertheless we wish to draw attention to the fact that we do not attempt to rupture multiple cysts of the ovaries in women. We aim only to improve circulation as distinctly stated in the paper. In this way we hope to favor the occurrence of the cyclic ovarian changes. At the same time we use other means at our command to stimulate the production of the normal hormones. I have discussed the matter with veterinarians but evidently there has been little opportunity to make histologic studies of the ovaries of the sterile cow. It seemed to us that there might be some analogy between the cow and the woman. We have made an effort in a very guarded way to find out; it is a trial; we do not know the result. There are many

difficulties in carrying out such a plan in private practice. One tells the patient frankly that he does not know whether the treatment will be of any benefit. Clinic patients are very likely to submit to it as it costs them nothing. In general, perhaps the statements of

clinic patients are not so reliable as those of patients of a higher type seen in private practice. The endocrine system plays an important part in the treatment of the barren marriage and one must do his best with the resources at hand.

THREE HUNDRED CONSECUTIVE EYE INJURIES*

JAMES J. MONAHAN, M.D., SHENANDOAH, PA.

There has been much agitation, recently, especially in our legislature, over industrial injuries. The medical profession should play some part in whatever legislation results and as a prelude to whatever aid we may be called upon to give as industrial eye surgeons, we present for discussion eye injuries in the Anthracite Coal Belt. Inasmuch as more than one-third of the industrial eye losses in Pennsylvania, during 1932, occurred in coal mines, we have a fertile field for discussion.

In a review of the last 300 eye injuries, the type of injuries were as follows:

1. Abrasions and lacerations of the cornea	108	36%
2. Contusions	66	22%
3. Foreign bodies on the cornea with abrasion	48	16 $\frac{2}{3}$ %
4. Imbedded foreign bodies	32	10 $\frac{4}{5}$ %
5. Ulcer—noninfected	21	7%
6. Infected corneal ulcers	6	2%
7. Perforating wounds of cornea and adnexa	4	1 $\frac{1}{3}$ %
8. Traumatic conjunctivitis, retinitis (electric flashes)	6	2%
9. Burns	6	2%
10. Subconjunctival hemorrhage, contusion with hyphema	3	1%

Although, 300 cases seem to be a small number to report, the proportion of the type of injury seems to be almost in the same ratio as in a larger series of 3000. There were 6 eyes lost to industrial vision in these 300; five following infected corneal ulcer and one from perforating wound. Though these losses are well above the average, we believe contributing factors had much to do with the same.

During the time at which this series was taken there was an intensive campaign to reduce the number of accidents and an effort was made at each operation to record from month to month "No Time Lost Accidents." While the propaganda to reduce accidents had its salutary effect, the danger of trivial injuries to the eyes untreated was not recognized or at least not given its proper consideration. The result was that the employee in his desire to cooperate or in his fear to incur disfavor, or the foreman in his

enthusiasm to establish a record, allowed the minor injuries to go untreated. In none of these cases was the eye treated on the same day the accident occurred, some eyes were treated as late as the week afterwards. Another contributing factor is that corneal ulceration, deep or extensive, seemed less painful and annoying to the worker, than an abrasion of the epithelium or a foreign body on the cornea, which fact resulted in a further delay in the early treatment.

There were 4 perforating wounds of the eyeball with the loss of industrial vision in one. These accidents were considered alarming from the beginning and the patients were in the hospital several hours from the time of occurrence. In the hospital appropriate operative procedure as toilet of the wound, iridectomy and conjunctival flap, were undertaken early, with the loss of one eye. This is a 25 per cent loss in a severe injury as compared to the 83 per cent loss in infected corneal ulcers, the result of a minor injury.

In a survey of 3000 cases of these injuries in the anthracite mines, there were 42 losses of industrial vision, divided as follows:

Infected corneal ulcers	20
Avulsion, and perforating wound of the eye	14
Foreign bodies in the cornea	2
Abrasions	2
Lacerations	1
Detached retina	1
Traumatic cataract with resultant optic atrophy ..	1
Embolism of the central artery	1

* In only 3 of these 25 minor injuries was the patient seen within 24 hours.

The treatment employed in these minor injuries consisted in the immediate use of a mydriatic. Except in the very trivial cases, the mydriatic of choice was atropine sulphate. While homatropine, hydrobromide, and duboisine sulphate were used at intervals, the result seemed to be quicker and treatment shorter if the more active medication of atropine was used. The annoyance to the employee may have been longer because of the paralysis of accommodation, but we found the relief from the symptoms and the signs of irritation were more promptly relieved by the stronger drug. Very exceptional

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

was there any loss of time owing to the mydriasis of the pupil. Although respect was paid to the age of the patient, small eye, flat cornea, shallow anterior chamber, increased finger tension, or a suspicious dipping of the retinal vessels the use of the mydriatic was withheld in a very few cases. Only one patient in the 3000 showed an uncontrollable increase in tension which seemed to be becoming glaucomatous. He died of alcoholism 4 years after the accident, with industrial vision still present but failing. An industrial loss probably would have been the result. There were instances of glaucoma from operative procedures as hemorrhages, *etc.*, but only one case in the series might have been attributable to the mydriatic. Whether alcoholism and corneal injuries have any relation or whether glaucoma is due to the medical inattention, these cases seem to cause more concern, trouble, and produce poorer results.

Iodoform ointment, 10 per cent, was the antiseptic of choice. Argyrol, boric acid solution, and mercurochrome were also used but how many beneficial results these antiseptics, outside of the cleansing and soothing effects, produce is debatable. Though our best clinics advise an antiseptic and bandage in trivial corneal injuries we have more assurance with a drop of homatropine added. Infected corneal ulcers were cauterized with tincture of iodine, 3½ per cent freshly prepared, and it was applied freely to the edges of the ulcer on a dry cornea. This was repeated. If the ulceration was extensive or rapidly progressing, the electric cautery at cherry red heat was used. The former treatment tended to more scarring but was more easily controlled and seemed safer as regards perforation of the ulceration. Shahan's thermophore was applied to infected erosions, almost but not quite coming in contact with the cornea. This was applied twice on succeeding days, at a temperature of 158° F. for 30 to 60 seconds on an anesthetized cornea.

In the use of foreign protein, whole milk was used exclusively. Although our experience in its use was not extensive we believe from observation elsewhere it is the most effective. Whole milk, as taken from the cow, not previously pasteurized nor even meticulously clean, is boiled for 3½ minutes, cooled to body temperature, and injected deep intraglutely, 10 c.c. for an adult. Reaction, systematic and local, occurs in 12 hours and the treatment is repeated in 24 hours; resting a day, repeated twice during the succeeding 48 hours. Should the ulceration involve much of the cornea this treatment is contraindicated as it seems to produce a further melting of the corneal surface. In heart

and kidney affections as well as atheromatous blood vessels, this treatment is withheld. Cream and extra butter as vitamin A adjunct in suspicious nutritional disturbance were added.

The general health of the patient, age, habits (alcoholics react poorly to treatment), focal infections, were factors in the success or failure of the treatment. There seemed to be a special predilection of some eyes to be vulnerable to infection without a demonstrable cause. There were no accidents of intra-ocular foreign bodies except those in which the adnexa of the eye were involved, as a torn sclera or iris. By this we mean there were no foreign bodies, as coal or rock, entering the eye, with no external evidence of injury at the entrance point as we find in steel, brass or sharp objects. Coal does not penetrate except it leaves evidence at the point of entrance.

In 1928 an attempt was made to reduce the number of eye accidents by the introduction of protective goggles. It was more intensively carried out during the succeeding 3 years. Though comparative statistics are not available because of the changing in the number of employees and the number of working days, it was evident that the number of eye injuries was greatly reduced. The conclusions were based on the fact that the number of injuries treated was one-third of that when protective goggles were not worn. In occupations especially exposed to flying foreign bodies, as the digging of coal, the use of goggles is a valuable prophylactic measure to reduce injuries and losses of eyes.

Following is a report of the industrial eye losses in the State of Pennsylvania, 1921 to 1932, inclusive:

TABLE 1.—*Industrial Eye Injuries, Eye Losses, and Compensation Awarded in Eye Cases in Pennsylvania, 1921 to 1932, Inclusive**

Year	Reported accidents to the eye	Eye injuries compensated	Eye loss cases compensated	Amount of compensation awarded
1921	9,174	2,590	653 ¹⁷	\$1,081,282
1922	9,360	2,214	527 ¹⁴	868,129
1923	13,911	3,105	621 ²¹	1,076,211
1924	12,630	2,772	637 ²⁰	1,082,785
1925	12,266	2,728	526 ¹⁰	878,185
1926	12,215	2,667	556 ¹⁷	943,169
1927	10,735	2,565	569 ¹⁵	950,275
1928	9,781	2,945	491 ¹⁹	962,322
1929	10,970	3,411	542 ¹⁷	1,144,592
1930	9,283	3,304	468 ¹⁹	998,010
1931	6,400	2,542	431 ¹⁷	892,160
1932	....	....	320 ²²	565,219

(N. B. The superior numbers following the number of eye loss cases indicate the number of double eye loss cases included.)

* The author is indebted to Elizabeth B. Bricker, M.D., supervisor of sanitation of the Department of Labor and Industry of Pennsylvania, for supplying these statistics.

During these 12 years there were 6041 eyes compensated, 208 of which were double eye losses. This is an average of 503 eyes lost yearly in Pennsylvania. In the period, 1921 to 1926, there was an average loss of 586 eyes. In the period, 1927 to 1932, there was an average loss yearly of 470 eyes. While the industrial unemployment had its effect on the decrease in the number of eye losses, still the number of eye injuries compensated during those periods is not at such great variance. We are inclined to think that in the latter years more attention has been paid to eye injuries with resultant earlier and better treatment.

In 1932, the number of eye losses in Pennsylvania was 320. Of these, 120, or more than one-third, were attributed to coal mining. There were 8 other classifications in this compilation exclusive of coal mining. Of these 106 losses, 50 were incurred in using hand tools and 13 from falling objects. Only 25 eyes were lost through explosive substances. In line with our experience this would imply 60 per cent losses were due to minor injuries. The late William Sweet of Philadelphia who did much consulting work in the eye injuries, in the anthracite region, often spoke of the vicious infection of hard coal corneal injuries.

Whether there is a virulent organism associated with this industry or not is not known as no investigation was made. Some operations seem almost free from corneal infections; others show frequent infected injuries. Within the course of a year in pursuing their work in the same region of the mine, 2 employees lost an eye each from an infected corneal ulcer.

The conclusions to be drawn from observations in eye injuries in the Anthracite Coal Belt is that the employee should have free access and be encouraged to consult the eye surgeon early in even the slightest injury; second, that protective goggles be worn in certain specified occupations especially exposed to even those minor injuries. The Altoona works of the Pennsylvania Railroad and the Pullman Company have a 100 per cent goggle rule in which all employees and executives are compelled to wear goggles, with commendable results. Other employers record similar results. In a recent campaign in our region 91 per cent of 10,479 employees were sold goggles, but it is estimated that about 50 per cent of them are worn. The coöperation of the employees was sought rather than a compulsive order. It is a question to be answered by us if called upon by our lawmakers in the interests of the conservation of eyes whether we should not encourage a statute compelling employees engaged in hazardous work to wear pro-

TECTIVE goggles. There is no doubt in our opinion that it has saved and will save many eyes. Possibly the refractive error could be included in the protective lens.

Since the introduction of Credé's antiseptic, ophthalmia neonatorum has fallen from the lead as the cause for blindness and industrial injury has become one of the leaders. Early treatment and the use of goggles in specified occupations will appreciably decrease industrial blindness. Coöperation and compulsion are not sufficient in some industries in which employees view with suspicion or distrust any attempt of the management to interfere with their personal liberties. Discharge of the employee, as a penalty, often creates strikes. The further aid in preventing the loss of eyes lies in the enacting of a law compelling employees to wear goggles in certain specified work.

The appointment of a consultant ophthalmologist by each compensation Board in controversial eye cases would render greater justice to employer and employee, prevent legal expenditures and delays, and relieve the physician of much embarrassment and criticism, just and unjust.

ABSTRACT OF DISCUSSION

CHARLES E. G. SHANNON (Philadelphia): Dr. Monahan's statement that "more than one-third of the industrial eye losses in Pennsylvania in this last year, 1932, occurred in coal mines" emphasizes the importance of his paper.

His first table of eye injuries with the percentage of lacerations and abrasions of the cornea as the most frequent (36 per cent) would probably correspond with that of injuries of this character in other lines of industry. Next in order of frequency are contusions (22 per cent), foreign bodies in cornea with abrasions (10 $\frac{2}{3}$ per cent), infected corneal ulcers (2 per cent), and perforating wounds (1 $\frac{1}{2}$ per cent). He further avers that of the 300 injured eyes, 6 suffered loss of industrial vision, or 2 per cent. This does not seem a high percentage by any means, and he is to be congratulated on keeping the percentage so low.

The basic purpose of Dr. Monahan's paper is, first, to suggest more adequate measures for cutting down the percentage of injuries and, second, to lower the morbidity by improved methods of treatment. In connection with the first of these suggestions, Dr. Monahan has made two commendable recommendations.

In connection with the methods of treatment for reducing the morbidity of eye injuries, for practical purposes, injuries of the eye may be divided into three main groups: First, superficial injuries, which would include foreign bodies in the conjunctiva and cornea, and non-perforating injuries and erosion; second, contusions; third, perforating wounds, with a brief summary of the treatment in each group.

By reason of our almost daily contact with this first group—superficial injuries—a more or less routine method of treatment, as pointed out by Dr. Monahan, is followed by most eye surgeons.

Because of the untoward action of cocaine upon the corneal epithelium I have practically discarded cocaine in my practice.

In the presence of an infected ulcer of the cornea several caustics are to be considered. Dr. Sweet, whom we have always regarded as an authority in the treatment of injuries to the eye, was, like Dr. Monahan, very fond of iodine. Dr. Sweet preferred Churchill's tincture which is about 10 to 12 per cent. He was particularly careful in applying the caustic to the edges as well as the floor of the ulcer. I have found a 4 per cent solution of trichloroacetic acid very efficacious. Others employ phenol with equal success. The Shahan thermophore has proved helpful in destroying pathogenic germs without injury to the cornea. With the development of an ulcer, serpens optochin in a 1 per cent solution should be applied directly to the floor of the ulcer with a cotton applicator and held there for 2 minutes. This may be repeated 2 or 3 times daily. Only a fresh solution should be employed.

I am hesitant about using the actual cautery as perforation occurs easily. In certain advanced ulceration cases it is a valuable procedure.

Dr. Monahan has referred to the injection of milk as a foreign protein in these cases. I have used milk, but of late I prefer diphtheritic antitoxin in the dosage of about 3000:5000 units, which may be repeated every other day.

The second group of injuries to which Dr. Monahan referred is that of contusion without rupture of the capsule. Treatment in these cases is dependent upon the character of the injury. Ice compresses in the early stages, later hot wet dressings, will assist in the absorption of any hemorrhage that may be present. Iridodialysis is usually left alone, although Key, of New York, is advocating in certain cases a surgical procedure which reattaches the iris to the ciliary body. He exhibited at the meeting of the American Ophthalmological Society, in 1933, a case in which he had carried out the operation successfully. Therapeutically, nothing can be done, and in many of these patients with iridodialysis the vision is not seriously impaired.

The last group to which Dr. Monahan has called our attention, and perhaps the most important, is that of injuries with perforation of the globe. The fate of the injured eye depends on whether the wound is or will become infected, for even though the wound be severe, the preservation of form and vision depends only upon how much the interior of the eye has been harmed by hemorrhage, loss of vitreous, or injury to the lens.

Primary infection of the margins of the wound may occur, but of even greater importance, secondary infection may occur, especially if the conjunctiva is chronically inflamed or a dacryocystitis exists. Patients may also touch their uninjured eye with their hands or soiled clothes. It is important that the patient should be brought to the eye surgeon immediately following the injury. The wound should be carefully cleansed and butyn, 2 per cent, instilled freely; antitetanic serum injected; and the patient put to bed. Gaping wounds in the sclera or even the cornea may require sutures. Prolapsed iris should be grasped by forceps, pulled out slightly and abscised, and the wound covered by a conjunctival flap to guard against infection and promote healing. In many cases the swollen lens material requires removal.

LEONARD G. REDDING (Scranton, Pa.): Coming from the coal region, I have always been interested in corneal ulcers. They are the most severe eye conditions we see and give us a sensation of fear and trembling. A few years ago, while on service in one of our hospitals, I noted that more miners had corneal ulcers following for-

eign body than did railroad workers. I thought it must be, as every miner believes, because the sulphur water contains some infective material. I took the histories recorded in that hospital for 25 years on infected corneal ulcers, and tried to group them according to mines, thinking there was some infection which would be more severe in one mine than the others. To my surprise, the number ran practically the same in each mine. The average age was 40 years.

About this time I heard Dr. Pancoast read his paper on anthracosis. I was immediately struck by the fact that these patients had reached the age at which most miners have well advanced cases of anthracosis of the lungs. I think this is not a localized condition but that all parts of the body are involved. I have never before seen this in print but have followed it since that time and think it is true. This should account for the apparent tolerance these patients have for foreign bodies on the cornea. The thing to do to avoid these corneal ulcers is to have coöperation between the mine superintendents and the hospital so that these patients will be sent to the hospital as soon as an injury is discovered. The best thing to do is to instill atropine when the patient is first seen, no matter how slight the injury. There will be fewer ulcers if this is done.

GEORGE H. CROSS (Chester): The use of goggles has been preached for many years. No matter what type of goggles you give the workers, the thing is to get them to wear the goggles. In summer time, with sweat running over the goggles it is impossible for a man to see his work, and if he is a piece worker he will wear the goggles on top of his head. There will have to be some type of goggles made that will permit the men to wear them.

The question of bandaging the eye is a moot one. Just touching the spot on the cornea with a little carbolic acid will frequently permit the man to go back to his work without the necessity of a bandage, and most of the men take the bandage off as soon as they get out anyway.

If we can get the men early we can reduce the tremendous number of ulcers. There should not be too much said about the first aid given by persons in the plant who first treat them. They should immediately go to the eye man before they have been roughly handled.

Long ago, in a paper with a résumé of 4000 injuries, I stressed that the thing to do is to educate the foremen and employers that they should train their employees to appreciate the dangers of their occupation so they will know what to do, not to send a man in blindly and put him to work without an appreciation of the dangers of his occupation.

The question of sterilizing the cornea is important. I use the actual cautery in front of the ulcer. It is easy to heat it cherry red and as it cools regulate the amount of heat with your finger.

Nonspecific foreign protein is excellent treatment. It makes no difference if milk or horse serum is used so long as enough is used. For a long time I used horse serum, but as a routine treatment milk answers the purpose much better than horse serum.

DR. MONAHAN (in closing): It is my experience that in corneal ulcer the loss of vision is more severe than in other cases.

The goggles they wear in mines now are supposed to be steam-proof; they are advertised as such.

I have used carbolic acid, but usually prefer iodine.

SYMPTOMATOLOGY, DIAGNOSIS, AND TREATMENT OF NEPHROPTOSIS*

JOSEPH C. BIRDSALL, M.D., PHILADELPHIA

It is a well recognized fact that all cases of movable kidney do not produce that symptom complex which is so characteristically pictured in typical cases and represented by a host of complaints referable to the gastro-intestinal, biliary, nervous, and entire urinary system. The perfection of amazingly wonderful urologic diagnostic instruments—the combined cystoscopic and pyelographic tables—and the marked advancement and thoroughness in urologic technique and methods of examination have taken a valuable position in the recognition and elucidation of physical signs and pathologic symptoms arising from various organs with disturbed physiologic functions. The futility of treatment of gastro-intestinal, biliary, neurologic, and urinary symptoms and problems of metabolism and nutrition over long periods of time and their instant correction with complete relief after nephropexy or proper renal support, is positive proof of the important mechanical rôle played by movable kidney. Pertinent queries immediately arise as to the explanation of the occurrence of the typical associated disturbances being present in certain cases of movable kidney and being entirely absent in others although there is fully as much ptosis encountered.

Since the time of the first writings on this subject by Mesue of Venice, in 1495, and the observations on movable kidney by the great French urologist, Rayer, who in 1846 presented seven cases in great detail as to etiology, symptomatology, diagnosis, and treatment, the medical literature has fairly bristled with detailed information from every standpoint of this very important subject.

According to Piersol, the kidneys lie behind the peritoneum, embedded within the subperitoneal tissue, so placed against the side of the vertebral column and the posterior abdominal wall that they occupy an oblique plane, their anterior surfaces looking forward and outward. The long axes of the organs are not parallel, but oblique to the spine, in consequence of which disposition, the upper ends of the two organs are closer than the lower extremities, the planes of the inner margins being anterior to those of the external. The right organ commonly lies somewhat lower than the left, in consequence chiefly of the greater permanent volume of the right lobe of the liver. As a rule the right kidney extends from the upper border of the last thoracic

to the middle of the third lumbar vertebra and the left usually lies from 1.5 to 2 cm. higher than the right, its upper pole being opposite the lower half of the eleventh thoracic vertebra; the lower pole being opposite the lower border of the second lumbar vertebra and the third transverse process.

The maintenance of the kidneys has been variously ascribed to the support afforded by the peritoneum, the perirenal connective tissue and fat, the blood vessels, surrounding organs, and the intra-abdominal pressure. Gerota has pointed out in particular the great support and fixation the kidneys received from the renal fascia which envelopes the organ in a distinct anterior and posterior layer. Bonney has also made the observation that imperfect development or acquired relaxation of this renal fascia is the factor principally concerned in the production of floating kidney. This renal fascia, although everywhere separated from the fibrous tunic of the kidney by an intervening layer of fat, is attached to the renal capsule proper by bands of connective tissue and according to Eisendrath and Rohnick, the fascia is attached to various organs by the hepato, duodeno, lienorenal, and phrenico-renal ligaments which may explain mechanically the various associated disturbances in these organs in movable kidney.

The excursion of the normal kidney during inspiration or while standing in the erect position and during expiration or while lying, does not on an average exceed 5 cm. in its vertical plane. Glénard recognized three degrees of abnormal mobility of the kidney and they have been practically and usefully agreed upon for the purpose of intelligent conception and description. (1) The lower half of the kidney can be felt by bimanual palpation during deep inspiration. (2) The whole kidney can be felt during deep inspiration and, (3) the palpating finger tips can be brought together above the upper pole during the respiratory movements, or in terms of the pyelogram, intravenous or retrograde, the renal pelvis, with the patient in the erect position falls to the level of the third, fourth, and fifth lumbar vertebra, respectively.

SYMPTOMATOLOGY

The principal and most prominent symptom is severe pain which is in the majority of cases referred to the iliocostal space and upper abdominal quadrant. In other cases the pain may be dull and continuous or "dragging" as many

* Read before the Section on U-ology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

describe it. It may also be sharp, excruciating, and intermittent and be referred along the course of the ureter to the bladder, labia, testes, or thigh. Anatomically the pain is due to traction upon and irritation of the sympathetic nerves which are derived from the renal plexus and contributions from the solar and aortic plexuses and the least splanchnic nerve. It is known in the case of disease in all organs supplied by the sympathetic system that stimulation of afferent sympathetic fibers is transmitted over the rami communicantes to the corresponding segments of the spinal cord and from here sensory impulses are conveyed to certain regions producing sensations of spontaneous pain, hyperesthetic areas, and persistent spasmodic contraction of striated muscle fibers, the visceromotor reflex, and to cutaneous areas, the viscerosensory reflex. A question of still greater importance in movable kidneys is the conception and understanding of symptoms in apparent but un-

such a reflex may be mechanical or pathologic, and may start and end in the same organ or in an adjacent organ; as for example, pylorospasm with the origin of the viscerovisceral reflex arising in the appendix or gallbladder. On this basis, in movable kidney, all the gastro-intestinal symptoms—nausea, vomiting, eructation of gas, hyperacidity, constipation, diarrhea, mucous colitis, and jaundice—may be reasonably explained. These conditions may in turn be responsible for loss in weight and inability to work without fatigue. The fact, too, that physical centers are highly affected by peripheral disease or mechanical irritation, offers the best explanation as to why, in many instances, cases of profound hysteria, neurasthenia, hypochondria, and according to Suckling and Billington, many cases of insanity have been cleared up by suspension of an abnormally movable kidney.

TABLE I.—Incidence of Movable Kidney According to Age

Age	No. of Cases
Birth to 10 yrs.	1
11 to 20 yrs.	5
21 to 30 yrs.	27
31 to 40 yrs.	29
41 to 50 yrs.	23
51 to 60 yrs.	12
61 to 70 yrs.	2
71 to 80 yrs.	1

TABLE II.—Renal Complications

Disease	No. of Cases
Pyonephrosis	2
Hematuria	15
Calculus Hematuria	3
Calculus	16
Pyelitis	38
Pyelonephritis	3
Hydronephrosis	46

TABLE III.—Treatment

Palliative: In a series of 52 cases in which palliative measures were used, there were failures in 25 cases; improvement, in 27 cases.

Operative	No. of Cases	Cures
Burford	48	42
Mathé	30	29
Lowsley	20	19
Deming	23	22
Bell	100	73
Bell	50	47
Our Series	51	50

real diseases in the adjacent abdominal organs. Von Bergman Westphal, and Jurasz explain this phenomenon on the basis of a viscerovisceral reflex which interacts between all organs supplied with unstriated muscle. The stimulus of

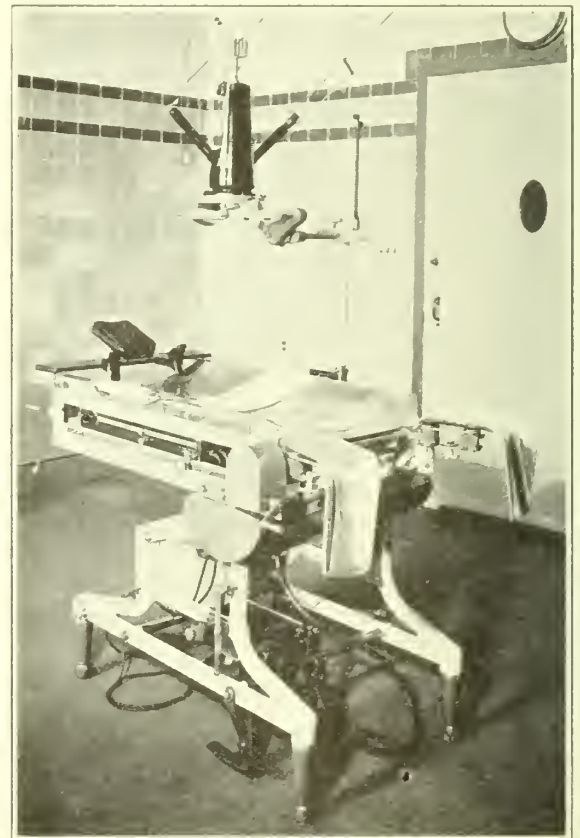


Fig. 1.—Combined cystoscopic and pyelographic table. The chief features of this table are: Electric motor-driven raising mechanism; adjustable Bucky diaphragm and tube stand with indicator for centering; adjustable leg supports for all positions. First pyelogram taken with table in this position.

The kidney itself should be considered as a possible source of originating a viscerovisceral reflex to the pelvis and ureter as well as the mechanical factor of displacement which gives rise to a kinking of the ureter at its normal point

of fixation or around some aberrant vessel which obstructs the normal outflow of urine. The pathologic picture can vary from hardly noticeable pyelectasis to a very pronounced hydronephrosis. From this functional impairment to disease is but a short step. Secondary changes easily take place which are chiefly atrophy of the renal structure caused by pressure from the retained urine and interstitial degeneration resulting from the interference with nutrition of the organ itself. Retention of urine in the pelvis of the kidney invites bacterial invasion with its customary sequelæ, pyelitis, pyonephrosis, pyelonephritis, and calculus formation. If such a condition supervenes, there occurs the usual urologic symptoms of nocturia, frequency, and burning of urination, and hematuria. The latter can be also caused by traction upon the renal veins producing congestion of the kidney. Fifty-six of Mathé's ninety cases of renal ptosis were complicated by infection. The picture may also include chills and fever, if there is blocking of the ureter in the presence of infection. This symptom complex was first pointed out and described by Dietl, of Vienna, in 1859 and has ever since been known as "Dietl's crisis."

The chief feature in some cases may be the presence of an abdominal enlargement, the palpable mass being due to: (a) A tumor occupying the renal parenchyma; (b) a hydronephrosis complicating a movable kidney; or (c) a third degree ptosis or floating kidney. The outstanding symptoms may in some cases be those of infection of the urinary tract and the diagnosis of movable kidney be made after a thorough urologic examination.

DIAGNOSIS

A patient giving a clinical history of the characteristic symptoms of dull aching or severe attacks of pain in the kidney areas, gastro-intestinal disturbances, loss of weight, neurasthenia, great fatigue upon slight exertion, and frequency and burning of urination may reasonably be diagnosed as having ptosis of the kidney. The most accurate determination of its presence, the degree or extent of its mobility, the visualization of renal and ureteral pathology, together with the differentiation from other suspected abdominal pathologic conditions, such as gallbladder disease, splenic tumor and growths of the colon, are revealed by ureteral catheterization and ureteropyelograms or intravenous pyelograms made with the patient in the recumbent and upright positions. A complete study by this method, employing one of the recently devised types of combined cystoscopic and pyelographic

tables, has made this examination, hitherto difficult, a comparatively simple and easy procedure.

TREATMENT

The treatment of movable kidney is still an actively debated subject. In the past there have been waves of overenthusiasm whose adherents performed nephropexy for all degrees of movable kidney, and also those of doubt; the followers of this school, believing that the condition being a part of the picture of a general visceroptosis, held the view that it could be corrected by abdominal support. Today, there is a gen-

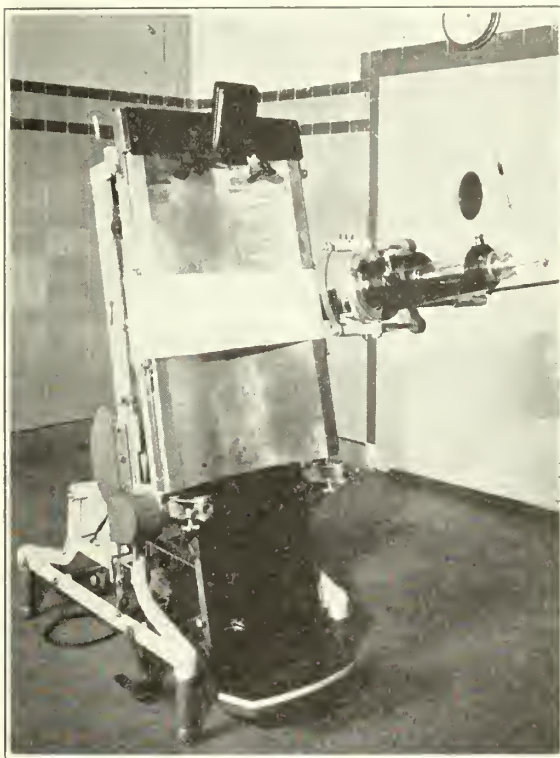


Fig. 2.—Picture illustrates attached table extension and standing platform for patient. Second pyelogram taken with table in this position.

eral consensus of opinion that symptomless cases of nephroptosis should not be treated; that each case should be studied, bearing in mind the degree of mobility, amount of existing pathology, occupation, and social status of the patient. Palliative measures should first be tried in all cases except in most pronounced ones of second and third degree ptosis and with advanced renal pathology which threatens to destroy the involved kidney. The palliative measure advocated consists of rest in bed for a period of 2 to 3 months, with elevation of the foot of the bed, forced feeding, improvement of the general systemic tone, and the wearing of a belt, binder, or

abdominal corset with a properly fitted and adjusted kidney pad. Glénard held that this form of treatment was very effective and Aaron reported cures in 95 per cent of cases treated in this manner. On the other hand, Edebohls, Hegan, Burford, and Bell found that patients received very little relief from palliative treatment. In 17 of Burford's 48 nephropexies no relief was obtained until suspension had been performed.

Bell, of England, is most emphatic in stating that palliative measures never give permanent relief and that most of the 100 nephropexies which he recently reported were done upon patients who had worn belts for long periods of time without obtaining relief and their cure being completely effected by suspension of the movable kidney. Burford reported cures in 42 of his 48 cases of nephropexy. Mathé obtained cures in 96 per cent of the 30 cases in which he performed nephropexy—46 per cent of which had not obtained any relief from palliative measures after a 6 months' to a year's trial.

The operative treatment of movable kidney is to be advised in all cases after palliative measures fail to give relief. The mortality following nephropexy is positively negligible. Edebohls reports only 1.65 per cent in 864 cases and Kelly only 0.4 per cent in 245 cases. If movable kidney is complicated by the presence of calculus, nephrolithotomy or pyelolithotomy is obligatory.

As to the operative procedure employed in fixation and suspension of movable kidney, practically every conceivable method has been practiced and each one described as having certain features which are purported to recommend it as being the best. The method which we have adopted and which when properly used anchors the kidney in its correct anatomic position, is the technic described by Kelly and Brödel, employing three sets of triple mattress sutures of silk or chromic catgut introduced through the capsule on the posterior surface of the kidney. It is highly essential that the kidney be completely mobilized and freed from all adhesions and attachments and that all collections of adipose tissue be removed from the new and intended kidney bed. The three sets of triple mattress sutures are then introduced, the upper set being inserted through the posterior capsule of the upper pole of the kidney and the second and third sets through the capsule of the middle and lower poles, respectively. The kidney is then placed in its new bed and the proper position for the introduction of the fixation sutures is determined. The factors to be especially considered are: (1) The upper pole of the kidney

should be anchored at a point closer to the spine than the lower pole; (2) the fixation should be at a position in which there is not too much traction or tension placed upon the vascular pedicle or ureter. The introduction of the fixation sutures has been greatly facilitated by the use of an especially made Reverdin needle. The upper set of sutures are in most cases brought through the intercostal muscles between the eleventh and twelfth ribs; the second and third sets are introduced at a lower level through the erector spinæ muscles. The kidney, by this technic, is fixed in as high a position as it is possible to obtain and its posterior surface is in direct contact with the lumbar muscles.

Postoperatively, the patient should be kept in bed, in the recumbent position, a sufficient length of time for firm adhesions to form and hold securely the kidney in place in its new location. It is our rule that the patient be flat in the dorsal position the first week; the second week the position may be changed to the affected side and during the third week, to the unaffected side. The patient is allowed to sit up in bed during the fourth week and at the completion of this time permitted out of bed. No abdominal support is necessary at the expiration of this period of time.

Many of the cases in this series were reported by the late Dr. B. A. Thomas. I wish to express my thanks of appreciation to Drs. Francis G. Harrison, Lorenzo F. Milliken and S. Earhart for several of their cases included in this series.

1900 Spruce Street.

ABSTRACT OF DISCUSSION

FRANCIS G. HARRISON (Philadelphia): The results obtained by such a simple operative procedure as nephropexy are remarkable. The difficult thing is to make the diagnosis in these patients prior to the pyelograph. Very often this cannot be done, particularly in patients who have only a small increase of motility but which produces acute angulation of the ureter. This simple procedure of nephropexy has produced very desirable results, for the pyelographs made after nephropexy show the kidneys in good position. It is interesting to see the pathology progress where for one reason or another the patient will not submit to operation. In one case, referred to by Dr. Birdsall, the patient was rather reluctant to consider operation for a bilateral nephroptosis and hydronephrosis, and consulted a specialist in Baltimore who recommended a dilatation of the ureter. After dilatation, the patient was not improved.

DR. BIRDSALL (in closing): During the first week we keep these patients flat on their backs in bed and we do not allow them to turn to either side. The second week they may turn to the affected side, that is, the side that has been operated on; should they turn to the other side they would stretch the adhesions or pull

the sutures free. The third week they may turn to either side, and at the end of the fourth week they are out of bed.

A few of these patients had an associated general visceroptosis. It is a debated question whether one

should do a nephropexy on a patient who has visceroptosis or Glénard's disease. We have done it in one or two cases for relief of symptoms when other forms of treatment have failed. Particularly if renal pathology is present, a nephropexy should be done.

NUTRITION IN CHILDREN*

From the Standpoint of a Medical Advisor of the State Emergency Relief Committee

HENRY T. PRICE, M.D., PITTSBURGH

In 1929, a noted economist stated that the period of depression would last until 1934. At that time his statement was laughed at with scorn and the value of his judgment was considered worthless. This prophecy has proved correct, for every agency connected with relief is planning to carry on its work through another winter.

The officers of The Medical Society of the State of Pennsylvania requested that the Pennsylvania State Emergency Relief Board appoint medical advisors, who would act as consultants relative to the rations to be supplied by it, and to assist in the medical problems which might arise. This Board appreciated the value of this recommendation, and promptly appointed the physicians chosen by the State Medical Society as their medical advisors. Judson Daland, of Philadelphia, and Henry T. Price, of Pittsburgh, were the appointees and have served in this capacity since January, 1933.

The duty of these advisors was to suggest acceptable rations which could be obtained at a minimum cost and yet be considered as basic sustaining diets.

For economy, only three classifications were used, but the advisors fully appreciated that this method was not ideal.

The plan decided upon at this time was to have these rations distributed from advantageous points called community markets, and at each station to have a dietitian ready to prepare these prescribed foods, in an educational manner, so that the persons who received the supplies could use them to the best advantage.

The definite instructions were: "Each Community Market Manager is required to have the food which he is able to buy, balanced and approved by a nutritionist designated by the State Emergency Relief Board, who will work in accordance with the specifications laid out by the Medical Advisory Committee." This plan also called for the appointment of a county

medical advisor for each county branch of the State Emergency Relief Board.

A community market which had been operating successfully at Williamsport was taken over by the Emergency Board Officials and continued to do good work.

Several other markets were soon opened in various parts of the State, but gradually the impetus of construction lost momentum. Soon it was seen that some other method of furnishing relief must be substituted, and the community market plan was dropped.

Fourteen requests for county medical advisors were received and your Committee promptly supplied the names suggested by the officers of the local county societies. These physicians were appointed, and as representatives of the State Medical Society, have been ready to serve when called upon.

The idea of the community market was to distribute food for relief but through some misunderstanding, one market was overwhelmed with many (353) special diets. All medical cases were to be referred to existing clinics or local hospitals for special care. You can appreciate the hardship placed upon this food dispensary when the following conditions were listed for special diets:

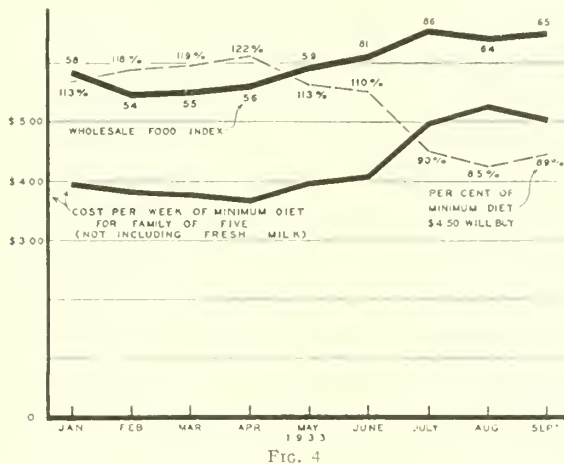
Diabetes	11
Stomach conditions	45
Postoperative	8
High blood pressure	6
Anticonstipation	4
Ulcer	5
Anemia	9
Kidney conditions	7
Reducing	8
Cardiac	8

One small woman with tuberculosis was ordered 6072 calories per day, which included 2 quarts of milk.

Unfortunately, the basic diets were translated into dollars and cents and the fundamental principle of a minimum sustaining diet was lost sight of.

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

With the fluctuating value of the dollar, the amount of food to be obtained at various times changed with the market. As Chart IV shows, the recipient had a reasonable advantage during April, but with the increasing cost of foods, the purchasing power shrank until in July, one could purchase only two-thirds as much food with the dollar, as at the most advantageous time. Or counting the minimum purchasing power as the base, in good times for the purchaser, he was able to buy 50 per cent more food with the same dollar.



Another very important drawback to this substitute method of obtaining food is the ignorance of the purchaser in securing the best food value for his money. It has been authoritatively determined that at least 30 per cent more food must be purchased by promiscuous buying to secure the same nutritional value as can be obtained by a scientific selection.

CHART V.—Families on Relief in the United States, Number Receiving Relief 20 Times Normal

January	3,850,000
February	4,140,000
March	4,560,000
April	4,470,850
May	4,249,564
June	3,789,056
July	3,510,000

The greatest economic loss is in the fact that the educational assistance of a trained nutritionist in preparing prescribed foods is practically impossible, under the existing methods.

The best food obtainable can easily be spoiled or even destroyed by faulty preparation and, during these times of stress, utmost care should be observed in the science of cooking or food preparation. Think for a moment, if you have to tax your memory, of an outstanding example

of poor food preparation or of a ruined meal you had hoped to enjoy.

Chart V gives you statistics which may be familiar, but also brings very clearly before you an unprecedented condition in our nation's history.

In January, 1933, one-tenth of the population of the State of Pennsylvania was receiving relief. More than one-half of these dependents are children. The relief problem, of course, was unevenly distributed and the industrial communities suffered most.

Allegheny County's peak load was, May 22, a total of 75,126 cases. In comparison, the load for the week of Feb. 13 was 55,164; on March 13, it was 63,964. On Aug. 12, it showed a reduction to 65,525; and on Sept. 9, there was a further reduction to 58,620. The load in September, 1932, was about 39,000 cases, therefore, these figures show that the present number is nearly 50 per cent more than one year ago.

Since the industrial unrest has disturbed this community, it is expected that the case load will increase again.

Federal Relief Administrator Hopkins has recently stated that in spite of the increased employment we will start this winter with one million more families on relief than were on the rolls a year ago. While the number of persons needing assistance is not greater than that of last year, funds of private agencies have become exhausted and public relief rolls have been correspondingly increased.

What is the status of the health of the children?

This question can be answered from personal observation, from statistics available as a result of single examinations, and from the results of repeated examinations.

The State Board of Health has coöperated with many communities in which its assistance was desirable and always with the sanction of that component part of the State Medical Society.

In Erie, 998 children were examined in a period of 12 days and 250 additional children were sent home because of lack of time for examination. The outstanding defects were: Dental caries in 532 children; bad tonsils in 469; enlarged cervical glands in 265; and 205 were mouth breathers. Cardiac conditions were noted in 85; enlarged thyroid, in 147; underweight, in 132; and 75 were markedly malnourished.

From this report, one could conclude that severe malnutrition was not a striking factor and up to this time it was not an alarming problem.

In the examination of 812 children fed through the Tarentum Community Market, the physical condition was classified as:

Poor	76	9.3%
Fair	332	40.8%
Good	400	49.5%
Unclassified	4	0.4%

Here again with the prolonged period of unemployment and administration of relief, conditions have not reached an alarming state.

Comparative figures have been prepared for Williamsport. The first examination was in December, 1932, and the check-up in April, 1933.

STATE EMERGENCY RELIEF BOARD:

Example of Low Cost Balanced Rations Used in Community Markets Operating in the State

Specifications.—Minimum specifications to which all rations must conform have been prescribed by a special committee appointed by the Pennsylvania State Emergency Relief Board, composed of Dr. Henry T. Price, medical director, Children's Hospital, Pittsburgh, and professor of pediatrics, University of Pittsburgh Medical School, and Dr. Judson Daland, Philadelphia, professor of medicine, Graduate School, University of Pennsylvania, Philadelphia.

Ration A.—The Adult Ration: The adult's ration must have a minimum of 2500 calories with not less than 20% fats, not over 65% carbohydrates, not less than 12% protein; must contain not less than two tablespoonfuls of canned tomatoes, and one teaspoonful

per day of cod liver oil; one-half of the cereals and breadstuffs should be whole grain; one serving of fresh vegetables a day, including potatoes. (See Chart.)

Ration B.—The Adolescent Ration, 8 to 15 years: The adolescent ration, 8 to 15 years, shall contain not less than 2100 calories with not less than 33% fats, not more than 52% carbohydrates, and not less than 15% protein, a portion of which must be animal protein. This ration shall contain 2 teaspoonfuls of tomato juice, or its equivalent, per day, 1 teaspoonful of cod liver oil, whole grain cereal, and fresh vegetables, including potatoes. (See Chart.)

Ration C.—The Children's Ration, 2 to 8 years: The children's ration, 2 to 8 years, shall have not less than 1400 calories daily, with not less than 30% fats, not over 52% carbohydrates, and not less than 18% protein, of which latter not less than 6% shall be animal protein; with three teaspoonfuls of cod liver oil daily and two tablespoonfuls of canned tomatoes; 50% all cereals and breadstuffs, whole grain; and one fresh vegetable a day. Eggs are used in the diets of the young child. (See Chart.)

Each Community Market Manager is required to have the food which he is able to buy balanced and approved by a nutritionist designated by the State Emergency Relief Board, who will work in accordance with the specifications laid out by the Medical Advisory Committee.

These are examples of combinations of foods which meet the nutritional requirements at low cost. There are many other possible combinations, depending on market conditions. All combinations, however, must meet the specifications so that the food essentials are constantly maintained as approved by the representatives of The Medical Society of the State of Pennsylvania.

CHART I.—(State Emergency Relief Board) Weekly Food Ration "A" for the Week of Jan. 21, 1933. Adults Over 16 Years of Age.

	Pounds	Calories Per Pound	Total Calories	Distribution of Calories				Calcium Grams	Phosphorus Grams	Iron Grams	Vitamin*				Unit Cost	Total Cost
				Fat	Carbo.	Animal Pro.	Vegetable Pro.				A	B	C	D		
Meat, beef	1.25	1,357	1,696	1,294	.....	394	.....	0.07	1.304	0.0136	*	*	0	0	0.08	0.10
Fl ur, white	4	1,600	6,400	160	5,440	.....	812	.364	1.668	.0180	.....	.....	.....	.....	.....	R.C.
Corn Meal, yellow ..	1	1,610	1,610	77	1,368	.....	166	.082	.862	.0040	†	†	.....	.....	.009	.009
Navy Beans	1.5	1,564	2,346	110	1,621	.....	612	1.089	3.205	.0472	.....	.....	.....	.....	.019	.029
Lard	1	4,082	4,082	4,082	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.06	.06
Sugar	.4	1,814	724	.....	724	.....	.....	.....	.....	.....	.....	.....	.....	.....	.043	.0172
Potatoes	2.5	304	760	10	668	.....	83	.160	.657	.0147	*	*	†	.....	.0091	.0228
Cabbage	1	121	121	7	86	.....	25	.204	.132	.0049	*	*	.....	.....	.006	.006
Carrots	1.5	159	238	12	201	.....	24	.381	.313	.004	†	†	*	.....	.012	.018
Tomatoes	.5	103	51	4	36	.....	10	.025	.059	.0009	†	†	†	0	.05	.025
Milk cooking	.75	1,647	1,236	42	678	513	.....	4.476	2.490	.0012	*	†	0	0	.05	.0382
Yeast	¾ oz.	.....	27	1	18	.....	9	.....	.....	.....	0	.....	.....	.....	.0175	.0175
Baking Powder	1 oz.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.0056	.0056
Coffee	.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.15	.0437
Soap	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.013	.013
Salt for family	.5 lb.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.012	.006
Apples, raw	3.0	214	642	36	576	.....	15	.006	.1620	.0039	.....	.....	.....	.....	.003	.0100
Weekly Total .....	.....	.....	19,933	5,825	11,416	907	1,756	6.947	10.852	.1124	.....	.....	.....	.....	.....	.4210
Daily Total .....	.....	.....	2,849	834	1,631	129	251	.992	1.550	.0160	†	†	.....	.....	.....	.0601
Percentage .....	.....	.....	.....	29%	57%	13%	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grams .....	.....	.....	.....	92	408	32	63	.....	.....	.....	.....	.....	.....	.....	.....	.....
Minimum Requirements (Sherman)†..	.....	.....	2,500	20-40%	43-65%	10-15%	.....	.92	1.52	.0102	.....	.....	.....	.....	.....	.....

* Vitamins evaluated from U. S. Department of Agriculture, Circular 84 (revised). All vegetable computations on slightly heated foods.

† Henry C. Sherman, Ph.D., Sc.D., Mitchell Professor of Chemistry, Columbia University.

Computations from Laboratory Handbook of Dietetics, Mary Swartz Rose, Ph.D., Professor of Nutrition, Columbia University.

‡ Variations in the diets.—Whole wheat flour will be used as often as possible to replace white flour. Eggs will be used frequently. Seasonable raw cheap fruit and vegetables will be used. Molasses as well as brown sugar will be substituted for white sugar. Occasionally oleomargarine will be used to replace part of the fat requirements. Meats will be changed.

Approved by The Medical Society of the State of Pennsylvania.

Approved by JUDSON DALAND, M.D.,
HENRY T. PRICE, M.D.

Computed by RUTH W. FISHER, Nutritionist.

CHART II.—(State Emergency Relief Board) Weekly Food Ration "B" for the Week of Jan. 21, 1933.
From 8 to 15 Years.

	Pounds	Calories Per Pound	Total Calo- ries	Distribution of Calories				Cal- cium Grams	Phos- phorus Grams	Iron Grams	Vitamin*				Unit Cost	Total Cost
				Fat	Carbo.	Animal Pro.	Vege- table Pro.				A	B	C	D		
Milk, whole	3½ qt.	676	2,356	1,228	683	455	.....	3.654	2.814	0.0060	†	†	...	...	0.05	0.1750
Meat, beef	1.25	1,357	1,696	1,294	.....	394	.....	.07	1.304	.0136	*	*	0	0	.08	.10
Flour, white	2.5	1,600	4,000	100	3,400	.....	507	.227	1.042	.0112	...	...	...	...	R.C.	R.C.
Cracked Wheat	.5	1,640	820	73	306	.....	73	.78	.445	.0043	*	†	...	...	R.C.	R.C.
Navy Beans	1.0	1,564	1,564	75	1,081	.....	408	.726	2.137	.0317	...	†	...	...	.019	.019
Lard	.5	4,082	2,041	2,041	.....	.....	.....	.....	.....	.....	...	...	...	...	.06	.03
Sugar	.4	1,814	724	.....	724	.....	.....	.....	.....	.....	...	...	...	...	.043	.0172
Peanut Butter	.5	2,741	1,370	945	155	.....	264	.161	.905	.0045	*	†	...	...	.05	.025
Potatoes	2	304	608	8	534	.....	66	.128	.526	.0118	*	*	†	...	.0091	.0183
Cabbage	1	121	121	7	86	.....	25	.204	.132	.0049	*	†	*	...	.006	.006
Carrots	1	159	159	8	134	.....	16	.254	.209	.0027	†	†	*	...	.012	.012
Tomatoes	.33	103	34	2	24	.....	7	.017	.039	.0006	†	†	†	...	.05	.017
Prunes	.5	1,161	580	.....	564	.....	17	.122	.236	.0068	†	†	0	...	.05	.025
Cod Liver Oil	1 oz.	4,000	250	250	.....	.....	.....	.....	.....	.....	...	...	...	...	.007	.007
Yeast	¾ oz.	.....	27	1	17	.....	9	.....	.....	.....	0	†	...	...	.0175	.0175
Baking Powder	1 oz.	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.0056	.0056
Soap	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.013	.013
Milk, cooking	.75	1,647	1,236	42	678	513	.....	4.476	2.490	.....	†	†	†	†	.05	.0382
Weekly Total .....	.....	.....	17,586	6,074	8,386	1,362	1,392	10.819	12.279	.0093	...	...	...	...	.....	.5258
Daily Total .....	.....	.....	2,512	868	1,199	195	199	1.545	1.768	.0142	†	†	†	†	.....	.0751
Percentage .....	.....	.....	.....	34%	47%	15%	.....	.....	.....	.....	...	...	...	...	.....	.....
Grains per day .....	.....	.....	.....	96	300	48	49	.....	.....	.....	...	...	...	...	.....	.....
Minimum Require- ments (Sherman)†..	.....	.....	2,300	30-40%	40-52%	12-18%	.....	.98	1.52	.0106	...	...	...	...	.....	.....

* Vitamins evaluated from U. S. Department of Agriculture, *Circular 84*. All vegetable computations on slightly heated foods.

† Henry C. Sherman, Ph.D., Sc.D., Mitchell Professor of Chemistry, Columbia University.

‡ Variations in the diets.—Whole wheat flour will be used as often as possible to replace white flour. Eggs will be used frequently. Seasonable raw cheap fruit and vegetables will be used. Molasses as well as brown sugar will be substituted for white sugar. Occasionally oleomargarine will be used to replace part of the fat requirements.

Approved by The Medical Society of the State of Pennsylvania.

Approved by JUDSON DALAND, M.D.,
HENRY T. PRICE, M.D.

Computed by RUTH W. FISHER, Nutritionist.

CHART III.—(State Emergency Relief Board) Weekly Food Ration "C" for the Week of Jan. 21, 1933.
Child 2 to 8 Years.

	Pounds	Calories Per Pound	Total Calo- ries	Distribution of Calories				Cal- cium Grams	Phos- phorus Grams	Iron Grams	Vitamin*				Unit Cost	Total Cost
				Fat	Carbo.	Animal Pro.	Vege- table Pro.				A	B	C	D		
Milk, whole	3½ qts.	676 per qt.	2,356	1,228	683	455	.....	3.654	2.814	0.0060	†	†	...	...	0.05	0.175
Eggs (each)	4	70	280	180	.....	100	.....	.808	2.176	.032	†	0	0	†	.015	.06
Flour	1½	1,600	2,400	60	2,400	.....	305	.136	.625	.0067	...	...	...	...	R.C.	R.C.
Oatmeal	1	1,810	1,810	294	1,224	.....	292	.313	1.778	.0172	*	†	...	...	.022	.022
Ole margarine	.5	4,082	2,041	2,041	.....	.....	.....	.....	.....	.....	...	...	...	...	.08	.04
Sugar	.25	1,814	453	.....	453	.....	.....	.....	.....	.....	...	...	...	...	.043	.011
Potatoes	2 lb.	304	608	8	534	.....	66	.128	.526	.0118	*	*	†	...	.0091	.0183
Cabbage	.5	121	60	3	43	.....	12	.102	.066	.0024	*	†	*	...	.006	.003
Carrots	1	159	159	8	134	.....	16	.254	.209	.0027	†	†	*	...	.012	.012
Oranges	2 whole	103	34	2	24	.....	7	.017	.039	.0006	†	†	†	...	.05	.017
Prunes	.5	1,161	580	.....	564	.....	17	.122	.236	.0068	†	†	0	...	.05	.025
Cod Liver Oil	1 oz.	4,000	250	250	.....	.....	.....	.....	.....	.....	...	...	...	...	.007	.007
Yeast	¾ oz.	.....	13	.....	9	.....	4	.....	.....	.....	0	†	...	...	.0175	.0088
Soap	1 bar	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.0130	.0130
Milk, cooking	.75	1,647	1,236	42	678	513	.....	4.476	2.490	.0012	*	†	...	...	.05	.0334
Cocoa	.25	2,251	563	97	295	.....	171	.127	.804	.0306	...	...	...	...	.047	.012
Weekly Total .....	.....	.....	12,843	4,213	6,681	1,068	895	10.137	11.763	.1180	...	...	...	...	.....	.4575
Daily Total .....	.....	.....	1,833	602	957	152	127	1.488	1.694	.0168	†	†	†	†	.....	.0654
Percentage .....	.....	.....	.....	33%	52%	15%	.....	.....	.....	.....	...	...	...	...	.....	.....
Grains .....	.....	.....	.....	66	239	38	32	.....	.....	.....	...	...	...	...	.....	.....
Minimum Require- ments (Sherman)†..	.....	.....	1,400	30-40%	40-52%	12-18%	.....	1.26	1.48	.0106	...	...	...	...	.....	.....

* Vitamins evaluated from U. S. Department of Agriculture, *Circular 84*. All vegetable computations on slightly heated foods.

† *Handbook of Dietetics*, Mary Swartz Rose, Ph.D., Columbia University.

‡ Variations in the diets.—Whole wheat flour will be used as often as possible to replace white flour. Eggs will be used frequently. Seasonable raw cheap fruit and vegetables will be used. Molasses as well as brown sugar will be substituted for white sugar. Occasionally oleomargarine will be used to replace part of the fat requirements.

Approved by The Medical Society of the State of Pennsylvania.

Approved by JUDSON DALAND, M.D.,
HENRY T. PRICE, M.D.

Computed by RUTH W. FISHER, Nutritionist.

With a reëxamination of 627 children, from the original 907, the following report is submitted: 619 gained an average height of $1\frac{1}{5}$ inches; 521 gained an average weight of $1\frac{1}{5}$ pounds; 65 failed to gain weight; and 38 lost weight. Of these 103 failures to gain, many still have defects which have not been corrected.

Statistics of the public schools of Pittsburgh, compiled by Dr. H. B. Burns, show malnutrition has increased:

Poor and very poor nutrition	1927-28	20%
Poor and very poor nutrition	1932-33	39%
Good and very good nutrition	1927-28	52%
Good and very good nutrition	1932-33	37%
Fair nutrition	1927-28	28%
Fair nutrition	1932-33	24%

These figures will be explained in detail by Allen M. Kerr, who included them in his paper* before the Section on Pediatrics.

From the files of the Public Health Nursing Association of Pittsburgh, very accurate and impressive data were secured for children from one to two years.

1931: 21 cases, average gain for 6 months, 3 lb. 9 oz.
1932: 99 cases, average gain for 6 months, 3 lb. $2\frac{1}{2}$ oz.
1933: 173 cases, average gain for 6 months, 2 lb. $12\frac{1}{2}$ oz.

These figures show that, in spite of every effort by experienced persons, malnutrition is gradually increasing and a serious breakdown may be expected if conditions do not soon improve.

Among these persons the parents are showing greater disturbances than the children, because it is definitely known that these parents are cutting down their own meager ration for the benefit of the children.

By personal observation and through conversation with my colleagues, astonishment is expressed over the fact that malnutrition is not as evident as should be expected.

This fact is due to the splendid coöperation of all agencies for the administration of relief.

Those in authority for distribution of funds have endeavored to secure the most food for the least money. Those agencies called upon to supply properly the food for distribution have had a stupendous task to administer.

Those receiving aid have shown the greatest fortitude and forbearance during these years of depression. The greatest paradox is the inability of our government to get the proper machinery in operation to prevent starvation in a land of plenty.

During the World War, our citizens were drafted for army service and the wage of the

private soldier was one dollar a day. He was classified and placed where he could work most effectively. An even greater emergency threatens, and the foe is starvation.

Why should not the government again draft its citizens for a necessary service and take over the country's transportation facilities to place the surpluses, which are going to waste at present, where they are badly needed?

To guard the health of the children of the State, the Emergency Child Health Committee was appointed in February, 1933, by Governor Pinchot, with Dr. Samuel McC. Hamill, of Philadelphia, as chairman. This action had the unqualified approval of The Medical Society of the State of Pennsylvania.

The work of this Committee is divided into units, each representing a component county society of the State Society. The chairman of the county group has been appointed by the president of the local society and upon this appointee rests the responsibility of forming an active organization.

At present, 50 county chairmen have been appointed and in 16 counties there are fully organized committees and a number of these are actually at work.

Dr. Hamill has stated that he realizes fully what a tremendous job is ahead, but that he is convinced this whole movement creates a marvelous opportunity for organized medicine, if it will but take full advantage of it.

The children of the State are our field for work and it is our duty properly to care for them, even at the sacrifice of much time and personal comfort.

Too much praise cannot be given to the officers of The Medical Society of the State of Pennsylvania for their vision and hearty support of this great movement, and if our fellow members will lend their enthusiastic support, Pennsylvania will not only be proud of its physicians, but will outstrip the world in its child welfare work.

121 University Place.

ABSTRACT OF DISCUSSION

JUDSON DALAND (Philadelphia): Dr. Price is particularly interested in children, and has done yeoman's work in that direction. The work is stupendous, and with him I join in congratulating The Medical Society of the State of Pennsylvania for its wise action. This organization will have much to do with the allocation of the Federal funds that are to be allotted to Pennsylvania—to physicians who examine patients, unable to pay, who are on relief in their own homes. Here is an opportunity for organized medicine to do good work, and it has taken advantage of this opportunity.

* See page 232.

Proper feeding of children is, on the whole, the most important work done by the Relief Committee. I agree with Dr. Price that buying food at the lowest price and distributing it by the community market method is the most efficient and economical way of giving relief.

The Committee appointed by the president of The Medical Society of the State of Pennsylvania has done good work in deciding on the amount and kind of food-stuffs most desirable for those who are applying for relief.

EFFECT OF THE ECONOMIC CRISIS ON THE NUTRITION OF SCHOOL CHILDREN *

ALLEN M. KERR, M.D., PITTSBURGH

That the period of economic stress through which we have been passing has had a severe, possibly even a dangerous, effect upon the health and nutrition of children is well known to all of us, and must unquestionably form one of the major problems of the medical profession during the next ten years or more. Of all professions, the physician is in the most advantageous position to see and to evaluate this threat. Of all medical groups, school physicians are likely to have the broadest view and the best opportunity because the entire school population of the State is available to them for study.

Physicians in general practice and those engaged in school inspection meet the problem of nutrition in children from different but coördinating points of view. Clinicians are interested in the child as an individual suffering from a physical condition demanding medical diagnosis and relief. School physicians now see children as a social group suffering from the results of an economic disaster, the full extent of which they of all men are most qualified to measure, because of their medical training, plus the special knowledge gained from years of study of presumably normal children. Practically every child in Pennsylvania from the age of four or five up to the late teens is available to them for clinical scrutiny; hence they are in an ideal position to discover very early changes in group nutrition and to measure their results objectively.

Realizing this fact, and its importance in health work, more than ten years ago we formulated in Pittsburgh a height-age-weight index, by the use of which the examiner can quickly place every child in one of five groups:

1. A group of 5 per cent or more above average weight, called very good.
2. A group from average to 5 per cent above average weight—good.
3. A group between average and $8\frac{1}{3}$ per cent below average, designated as fair.
4. A group between $8\frac{1}{3}$ per cent below and $14\frac{2}{7}$ per cent below average—poor.
5. A group more than $14\frac{2}{7}$ per cent below average—very poor.

The word average as used in this paper refers to the figures given in the well-known Baldwin Wood tables. The validity of these average figures may be open to question, but does not impair the accuracy of our study, which is based not on the absolute weight of the child, but on change in group placement due to failure to maintain his usual nutritive status.

Since adopting this method of classifying nutritive status using weight as an index, we had made in Pittsburgh, prior to 1928, more than 500,000 individual weighings of school children, and have since added over 300,000 more. We had found that the percentages appearing in each of the above classifications were relatively stable, differing only by small fractions from year to year, so that it was true that at all times, even the most prosperous, 7 per cent of all school children were found in group 5; in other words, were at least one-seventh below average weight.

This classification enabled us over this period of years to establish norms for the percentage of children appearing in each group, marked deviations from which could be evaluated and their causes searched for. It should be borne in mind that in this study based on these figures, changes in nutrition are interpreted not in terms of the absolute weight of the average child at a given age-weight level, but in terms of the total change from one weight group to another which is much more reliable as an index of the school population as a whole. If in each of the upper groups established above there is a tendency for many children to move toward a lower grouping, unquestionably some unfavorable change is occurring in the community which is being reflected in their condition and in our figures.

Such a change began to appear in the school year 1927-28. In each of the preceding 5 years, the percentage of children appearing in the lowest group had been fairly close to 7 per cent of the total number examined, as previously stated; in the year mentioned (1927-28), the figure rose to 8.0 per cent. Though the increase attracted our attention, it was considered a temporary

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

fluctuation which would quickly right itself. When in the succeeding year, the figure rose to 9.1 per cent, we began to feel something was wrong, and the 10 per cent recorded in 1929-30 convinced us that the economic stress had been and still was increasingly effecting our pupils.

The reasons for the change we recognize now. The effects of unemployment were beginning to be felt in 1928, first of all, in that group which in ordinary times is always on the edge of poverty, which is first to be dismissed from the payroll, and first to feel the effects of underfeeding and all its companion evils. It was in the schools situated in the poorer sections of the city that the change in nutritive level occurred earliest and most severely, although later on only the most prosperous sections escaped with slight change. We know now that in these figures in 1927-28 we were hearing the first rumbles of the approaching storm; but at that time we failed utterly so to recognize them.

The evil effects continued. A slight rise to 10.5 per cent marked 1930-31; in 1931-32 the real storm broke when our percentage rose to 12.6 per cent. Remember that means each of these children was at least one-seventh below its expected weight.

Other figures help to grasp the full extent of the situation. In 1928, one-half of our children—49.2 per cent—were at or above normal weight; in 1931-32, only 37 per cent were. In 1927-28, 20 per cent were in the poor or very poor classifications; in 1931-32, there were 39.2 per cent in this group.

These figures indicate a very marked change for the worse in the physical condition of the school children in a typically industrial city. It should be borne in mind also that in the school years 1931-32 and 1932-33, very extensive feeding programs were being carried on in the homes, which unquestionably prevented those figures from reaching really appalling depths. I shall say nothing here of the increase in tuberculosis incidence which is almost certain to follow such decrease in child well-being and in resistance to infection.

An interesting condition was revealed in the examinations of the preschool children, in that their nutrition was consistently much better than that of the school child. In June, 1932, for instance, 44 per cent of the preschool children were of normal nutrition, and 80.7 per cent were fair or better, as against 37 per cent and 60.8 per cent, respectively, for regular pupils. This reflects the greater care and provision made for the stay-at-home young child, who is constantly under his mother's eye, and is hence fed oftener and usually with more nourishing food.

The nutrition of the pupils in high schools suffered more than in elementary schools, because of the inability of many families to provide money for the noonday lunch, as was shown by the decreased number of pupils patronizing the school cafeterias and by the decreased outlay of each pupil.

Many of these subnutritional pupils were given milk daily on school days. Several studies were made of the results of such feeding. In approximately 7500 such elementary pupils it was found that 7100 gained weight, and 1605, or 21 per cent, gained sufficiently to move into a higher nutritive group.

A large group also were fed during the vacation months of 1932, being given once daily a half pint of milk and as many sandwiches as they could eat. Approximately 6000 were weighed before and after this feeding, and studied in more detail. It was found that about 36 per cent in each of the lower groups gained sufficiently to move into a higher group. The average number of calories received in this feeding was 600. It is important to note just how beneficial was such a comparatively small addition to their usual dietary.

Happily our figures for the school year just ended show a gratifying betterment in the situation, which began to be evident early last winter, and has continued with increasing strength, so that now 39.2 per cent of the pupils are of average weight or over, and only 24.4 per cent are in the danger zone of poor and very poor. Though part of this improvement may be attributed to the supplementary feeding just mentioned, some—possibly most of it—is due to the economic betterment of the average family, as a similar improvement in the status of the preschool children would seem to indicate.

It is obviously impossible in a brief paper to go into many mathematical considerations which would be interesting or even valuable to the specialist in this field of work. The type of study here set forth is new in its point of view and in its use of movement from one nutritive group to a lower or higher group as the indicator of economic changes.

SUMMARY

A summary of the statements made would seem to indicate several things:

1. A marked economic depression can produce unfavorable effects upon the nutrition of a large percentage of the school children before its imminence is fully appreciated, and that a tendency to improved nutrition may be a harbinger of better times.

2. High school pupils as a whole tend to suf-

fer more severely than elementary pupils of the same district, and that children too young to go to school fare best of all (no study of infants was made).

3. A comparatively slight addition—approximately 600 calories a day—to the usual diet was sufficient to stop the loss of weight for practically all children, and to enable many to gain enough to pass into a higher group.

4. School physicians as a group are in a position to study changes in the nutritive status of large numbers of children, and to draw from them inferences, which may be valuable in guarding against or diminishing the effects of economic crises similar to the one under discussion.

5. Uniform methods for measuring and uni-

form standards for grading the nutritive status of children as individuals and in the mass are absolutely necessary for intelligent study of the economic status of the country as a whole. To evolve such methods and standards is a legitimate and desirable function of the medical profession.

Administration Building.

ABSTRACT OF DISCUSSION

ROYAL H. McCUTCHEON (South Mountain): I was much interested to learn of the improvement which can be gained in school in these children by adding milk to the diet. In the time under observation these children have improved as much as 50 per cent. I should think more than milk would be necessary to bring about such results, as rest and possibly elimination of some physical defect. It is interesting to note what can be done with these children.

DISEASES OF THE CHEST AND OF THE ABDOMEN*

Their Mimicry of Each Other

DAVID RIESMAN, M.D., PHILADELPHIA

The practice of medicine would be far easier if diseases kept to textbook standards. If the symptoms of pneumonia were always the same, if appendicitis never changed its physiognomy, what a strain would be taken from the mind of the conscientious doctor. Unfortunately one of the first lessons the young practitioner learns is that things are not what they seem. Marion Sims knew only the textbook pictures of disease, so when he was confronted with his first case in his South Carolina home, he was nonplussed and though he searched his books, he was unable to find light. You know what happened. When the same experience repeated itself, he threw his shingle in a well and left the town. Unfortunately, the end results are but rarely as triumphant as in the case of Marion Sims.

Our classifications of diseases are after all artificial which is the reason why they have undergone so many changes as is admirably brought out in Knud Faber's *Nosography*.

After this preamble, I pass now to the subject of my essay. I wish to point out some of the common vagaries of diseases that perplex us in our daily work. It would be an impossible task to take all—a textbook could be written on atypical diseases—I shall speak of those in the chest and in the abdomen that give the impression on superficial examination that they had arisen in the other cavity.

The first that comes to mind is pneumonia.

One day I was asked to see a boy of ten in consultation; he had been taken ill with abdominal pain and vomiting. The family physician had diagnosed appendicitis and advised immediate transfer to a hospital. The anxious mother wanted an additional opinion. As the doctor related the symptoms, they clearly pointed to the abdomen. When I came to examine the patient I was struck by the playing of the *alæ nasi*, the rather slight tenderness of the abdomen, and the ill-defined rigidity. There was a little impairment on percussion over one apex and suppressed breathing in the same area—sufficient for a tentative diagnosis of pneumonia. In a day or two, the pneumonic process became clear; empyema followed with complete recovery after operation. This case illustrated a very common happening in children. One might ask what about the leukocyte count; it is of course increased both in pneumonia and in appendicitis and if around 20,000 gives no help; however, if much higher, 30,000 or more, with polymorphonuclears of 90 per cent or more, the thought of pneumonia should be at once entertained. Children do not always cough; they rarely expectorate, so no help is gotten from the sputum—but the playing of the *alæ nasi* and the expiratory grunt are seldom absent. In a few very difficult cases, a small herpes vesicle or crust on the lip or nose may give the clue—it is, as you know, a frequent symptom in pneumonia.

In adults, pneumonia does not set in very often with abdominal symptoms, but I have seen

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

a number of cases. The most remarkable one, already reported elsewhere, is as follows: I was at a banquet—about ten o'clock I was called to a hospital to see a man with appendicitis who was about to be taken to the operating room. As the patient was an important citizen, a specialist in anesthesia had been called to give the ether. This very careful man was not pleased with the patient's pulse and asked that some one be called to examine the heart and determine whether ether anesthesia was safe. When I reached the hospital, surgeon, interns, and nurses were all scrubbed up; the stretcher was at the door; the family were there waiting for the result of the operation. Getting a hurried history from the patient, I was, I must admit, impressed with its verisimilitude to that of pneumonia. But on examination of the chest, I found a definite pneumonic consolidation below the angle of one scapula, with unmistakable bronchial breathing. The situation was embarrassing in the extreme and with all the tact I could command I informed the family that an operation was not necessary. Doctors and nurses were sent to bed. By the following day the diagnosis was no longer in doubt. Often, how often no one knows, operations are performed in such cases. Children thus operated upon under a mistaken diagnosis may recover despite the trauma added to the pneumonia, but adults rarely do. Hence the importance of examining the chest in every patient who falls acutely ill with what appears to be appendicitis.

In rare instances pneumonia may simulate a gallstone attack, especially if jaundice is present.

I am inclined to think that some of the ether pneumonias, so-called, are in reality unrecognized preëxisting pneumonias that were masked by abdominal symptoms.

What I have said about pneumonia is equally true of acute pleurisy—perhaps it is the pleurisy in pneumonia that gives rise to the referred pain. There are pleurisies that as far as one can tell are not part of a pneumonic process. One must, therefore, look for them in all cases of acute febrile abdominal manifestations.

How are we to explain the presence of pain in the abdomen? In some instances there may be a double infection, *i. e.*, pneumonia and appendicitis, but this is not often the case. There have been too many laparotomies in which nothing was found in the abdomen. Actual pain reference to a remote region is a definite observational fact about the cause of which we know little. The work of Capps has shown experimentally the possibility of such distal pain reference. If by some obscure spinal nerve reflex the vessels in a distant part were made to con-

tract spastically, it might explain the referred pain, for spastic constriction of arteries is a painful phenomenon. The subject is one that requires much more research than it has received.

The simulation of gastro-intestinal conditions by disease of the heart has become a truism in medicine, one, however, often forgotten. Elsewhere I have called attention to these simulations under the phrase "Gastric Masquerades."

1. Ordinary myocardial failure may in the early stages give the picture of dyspepsia, especially of the flatulent type. This is particularly true in the presence of a unilateral, usually right-sided, hydrothorax. I remember the case of a locomotive engineer who was referred to me with the diagnosis of chronic indigestion. He had no subjective symptoms suggesting heart disease—what shortness of breath he had was attributed by him to "gas on the stomach." This gastric emphasis had influenced the doctor's opinion. I found fluid in the right chest caused without doubt by a failing myocardium. Tapping of the chest completely banished the dyspeptic symptoms.

2. In advanced congestive failure the gastric symptoms—distention, loss of appetite, nausea, and vomiting—have in several instances led to a diagnosis of malignant disease. This has occurred more often in cases of mitral stenosis with decompensation than in other diseases of the heart, the reason probably being the elusiveness of the mitral stenotic murmur and without murmur many physicians are unwilling to diagnose heart disease. This often leads to serious error. In mitral stenosis I have occasionally found that the brunt of the hepatic congestion has fallen on the left lobe of the liver, which then forms a tumorlike mass in the epigastrium that may easily be mistaken for a new growth. In one case the patient had been already referred to a surgeon for operation with a diagnosis of cancer of the stomach.

I might say a word about the recognition of mitral stenosis—even when a murmur is absent, there is nearly always a "presystolic element," a loud, snappy first sound. If the patient is examined in two positions or after a little exercise, the murmur will rarely escape detection.

3. Coronary artery disease contains within itself two main possibilities of error in interpreting the symptoms as of subdiaphragmatic origin.

a. In the early stages the patient may have no pain, only a sense of oppression in the lower sternal and epigastric region which is relieved by standing still and eructating a little gas. Many cases of this type are diagnosed as cases

of gastric neurosis or dyspepsia and remain so labeled until an acute coronary occlusion points its threatening finger to the real seat of the disease. How can one guard against this tragic error into which most of us fall at some time in our lives? If a middle-aged adult who has always enjoyed good health begins to complain of some gastric disorder for which no apparent cause is in evidence, he is most probably suffering either from an incipient new growth or from cardiac disease. There are of course other possibilities such as cirrhosis of the liver, pernicious anemia, etc., but they are more remote.

b. Acute coronary occlusion so often simulates an abdominal catastrophe that only the most watchful care will enable us to escape errors. The particular conditions that are simulated are: Perforated peptic ulcer, gallstone colic, acute pancreatitis, mesenteric thrombosis. I shall not go into the differential diagnosis, all I need to say is that in every case of acute upper abdominal pain attended by shock, the physician should look not only for a cause in the abdomen but also for the signs of coronary thrombosis.

Cases of angina abdominis are so rare that I shall do no more than mention them.

Sudden rupture of an aneurysm may closely simulate an acute abdominal crisis. In a case of rupture of a dissecting aneurysm of the aorta, the primary picture was that of a gallstone attack, later of an acute coronary closure. The pain was virtually uncontrollable; it abated a trifle when the patient got on all fours on the floor.

Though simulation of abdominal disease by disease in the chest is common, the simulation of thoracic disease by trouble below the diaphragm is not common, if we exclude those functional digestive disturbances that by causing palpitation and hypochondriac pain lead the patient to imagine he has heart disease. Gaseous distention of the stomach or colon by incidental pressure against the diaphragm seems capable of disturbing the heart's action. Correction of the diet and habits of eating, attention to the bowels, and a simple alkaline bromide mixture, and much psychotherapy usually cure these cardiophobias. A subdiaphragmatic abscess, rarely a hepatic abscess, may resemble empyema. A careful history, the roentgen ray and judicious exploratory puncture usually clear up the diagnostic difficulty.

I have referred to the great similarity under certain conditions between angina pectoris or coronary seizures and gallbladder attacks. That fact imposes upon us the necessity of careful study in equivocal cases of disease in middle-aged persons, especially in men of action. What at first sight looks like angina pectoris might be

a gallbladder attack and vice versa, as pointed out above. If there is the slightest doubt whether the case is one of gallstone or coronary disease, then the most painstaking study is required before the patient is subjected to a gallbladder operation. Gallbladder trouble and myocardial disease, it should be remembered, may occur together; in such cases, as I pointed out many years ago, removal of the gallbladder may bring about a complete disappearance of all cardiac symptoms.

In a few instances I have seen puerperal septicemia diagnosed as bronchopneumonia. This seems strange but the following observations will explain the matter. The abdomen in these patients was greatly distended by tympany and on account of the consequent pushing up of the diaphragm, there was much shortness of breath; and as nearly always in case of grave illness some râles could be heard over the base of the chest. These features had led to a diagnosis of bronchopneumonia. To my surprise the obstetrician could in several instances not find any local evidence of septic infection and had welcomed the diagnosis of bronchopneumonia. There is a peculiar mental state in most cases of puerperal septicemia that is not ordinarily found in primary pneumonia, a clarity almost a superclarity of mind,* and an unawareness of the gravity of the condition which together with the history of recent confinement has helped me to a correct diagnosis confirmed in two instances at necropsy.

A condition not strictly thoracic, one rather without a definite local habitation, is diabetic acidosis which may closely resemble appendicitis. Fever, abdominal pain, and leukocytosis are often present and I know of one case already on the operating table—the surgeon had diagnosed acute appendicitis—when the urine report stayed the surgeon's knife. Insulin promptly cleared up all the symptoms. Dr. Priscilla White has met cases in which diabetic acidosis produced the deceptive picture of pneumonia. Diabetic acidosis may produce pain in the precordial region and cause the suspicion of angina pectoris or coronary occlusion to arise, as pointed out by R. M. Lymburner (Proc. of Staff Meetings of the Mayo Clinic, 8: No. 16, 1933.). The fact that angina pectoris and coronary disease are frequent in diabetes may make the interpretation of the symptoms in a given case difficult. Electrocardiographic studies and the results of insulin treatment may help to clarify the obscurity of the picture. Anginal attacks have been observed after the use of insulin. Just how they are brought about is a moot question.

* This peculiar mental state has its best literary representation in a character in Schnitzler's play *Dr. Bernhardi*.

In one or two cases of acute tonsillitis under my observation, abdominal symptoms of the appendicitis type were present.** If the appendix is indeed the abdominal tonsil, then such vagaries can perhaps be understood. Inspection of the throat in a child or young adult will do no harm—it certainly helped in my cases.

Two other conditions deserve to be mentioned even though they do not entirely fit into the general picture I want to draw. One is the gastric crisis of tabes—which may throw even the most wary clinician off his guard. I have seen the following diagnosis made: Gallstone colic, perforated peptic ulcer, intestinal obstruction, hysterical vomiting. There is but one rule for avoiding such mistakes—in all cases not typical of the conditions just mentioned, the physician should test the knee jerks and the pupils. With regard to the pupils I have had one fact borne in upon me—that the pupils are likely to

** I might briefly refer to a simulation of meningitis by tonsillitis. Although not strictly germane, it is interesting enough to deserve a brief record here. A man, age 45, was seized with intense headache and insomnia. His physicians suspected meningitis—lumbar puncture showed an increase in cells but no organisms. The case proved to be one of follicular tonsillitis.

be pinpoint and will not respond to the light reflex because morphine has so often been given. A Wassermann test, especially on the spinal fluid, will naturally be most helpful. The fact remains that even in the best hospitals patients whose real trouble is tabetic crisis are operated upon for one or another acute abdominal disease.

The other condition that I want to refer to briefly is migraine. More than once have I seen patients whose case was diagnosed as either peptic ulcer, gastritis, or some other subdiaphragmatic process, though the real essence was migraine. In some cases of this strange malady the headache and ocular symptoms are less conspicuous than those of the abdomen. A history of familial attacks, a longer duration than the usual abdominal troubles, often beginning at puberty, will help in solving the problem.

Every practitioner of large experience can find cases among his records or in his memory that illustrate my thesis and others of the same genre that I have omitted to mention. Eternal vigilance is the price of correct diagnosis.

1520 Spruce Street.

CONDITIONS THAT REQUIRE NEPHRECTOMY*

WILLIAM L. ESTES, JR., M.D., BETHLEHEM, PA.

Removal of a kidney was first performed by Erastus B. Wolcott, an American, in 1861. Gustav Simon, of Heidelberg, in 1869, did the first nephrectomy in Europe, but the high mortality in the hands of his disciples put an end to nephrectomy until asepsis was firmly established (Garrison). With the introduction of the cystoscope by Nitze (1877-1878) ureteral catheterization was made possible, and with the development of bacteriology, radiology, kidney function tests, retrograde pyelography, and more recently intravenous pyelography, urologic and renal diagnosis has achieved a very high plane of potential efficiency. These are not procedures for the tyro but for those who will develop from proper study and experience adequate interpretative acumen. With the advance in knowledge of kidney disease, the technic of nephrectomy has become fairly well standardized and the indications for its use generally recognized. Before the operation should be undertaken, however, it must be established that there is a remaining kidney, healthy, and of normal function. The postoperative mortality is low—about 4 per cent (Hunt), but this should not be taken as an argument for radical surgery. Conservatism in

nephrectomy has recently been stressed by Barney.

In our series of 40 consecutive nephrectomies there was no mortality. Little of value, from a statistical standpoint, can be deduced from so small a number. Nevertheless, a consideration of the diseases for which removal of a kidney was necessary would seem of interest.

These lesions were:

I. Renal tuberculosis	10	} 80 per cent
II. Pyonephrosis (calculus-5) ...	12	
III. Hydronephrosis	10	
IV. Lipomatosis (atrophy)	3	
V. Rupture (traumatic)	1	
VI. Adenocarcinoma (hypernephroma)	1	
VII. Adenosarcoma	1	
VIII. Papilloma	1	
IX. Congenital cyst	1	

It will be noted that 80 per cent were either tuberculosis, pyonephrosis, or hydronephrosis; only 2 malignant tumors, and 3 have been classified as lipomatosis. A brief discussion of these conditions would seem timely.

I. RENAL TUBERCULOSIS

The earliest symptom of renal tuberculosis is usually frequency of micturition with burning long before any complaint of pain or discomfort

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

in the affected kidney is observed. The frequency is most noticeably nocturnal; fever is not common. The urine is not diffusely cloudy but seems faintly turbid from fine discrete particles easily discerned in a freshly voided specimen after shaking gently.

A. *Pathology*: Tuberculosis of the kidney begins in young adult life but may not be recognized until middle-age. It has a hematogenous origin usually from a previously quiescent tuberculous lesion elsewhere in the body, most commonly pulmonary; in one of our cases the primary lesion was apparently in the hip joint. Primary bone lesions have especially been emphasized by Harris. The earliest lesion is probably tubercle formation somewhere in the parenchyma of the kidney. As the tubercle grows larger it eventually ruptures into a calix or into the kidney pelvis. Then, and not until then, will tubercle bacilli be found in the urine (Liebenthal and von Huth). Hence, in the earliest stages, frequency may be present, tuberculosis may be suspected, but no tubercle bacilli will be found until this rupture has occurred. One of our cases, under fairly constant observation, demonstrated this remarkably well. A thin, anemic young woman, age 23, with a quiescent lung lesion, began to have urinary frequency. Repeated cystoscopic examination over a period of 6 months failed to reveal any definite disease. Finally, at the fourth cystoscopic examination, turbid urine containing tubercle bacilli was obtained from the right kidney, the left kidney urine being clear. The kidney after its removal was found to have near its center a single caseous tubercle, 2 to 3 cm. in diameter, which had, apparently just recently ruptured through a very small opening into the neighboring calix—as the kidney pelvis and ureter showed no evidence of involvement.

When tubercle bacilli finally enter the kidney pelvis and ureter, the tuberculous process readily spreads down the ureter and into the bladder. It has been held that renal tuberculosis is at first unilateral and that the other kidney becomes involved only late in the disease, either by "back wash" from the bladder up the ureter or by the blood stream. Recently, however, the entire question of the pathology of renal tuberculosis has been reopened, notably by the work of Thomas and Kinsella, and Medlar. Medlar has shown conclusively that a secretory bacilluria, *i. e.*, tubercle bacilli in the urine without actual renal tuberculosis, is a myth. Thomas and Kinsella (also Medlar) have demonstrated in a study of a very large group of cases that bilateral renal involvement is surprisingly high (57 per cent) and consider bilaterality the rule. Other

reports, however, are at great variance. In Hunt's 838 cases, 13 per cent were bilateral; Folsom's showed 10 to 14 per cent; Wildbolz had in more than 1000 cases 12 per cent bilateral (Folsom); Rafin, 47.6 per cent (Caulk); Braasch (after nephrectomy) 20 per cent died, in 5 years, of tuberculosis in the remaining kidney. In attempting to reconcile these divergent figures, it should be recognized that Thomas and Kinsella's study was made upon the inmates of a tuberculosis sanatorium, with the likelihood that many of the subjects had a generalized tuberculosis. Folsom's, Hunt's, and Wildbolz's percentages are based on routine urologic examinations. This would seem to indicate, as both Hunt and Folsom have pointed out, that there are two types of renal tuberculosis: (1) In generalized tuberculosis, a miliary renal involvement, usually bilateral; (2) a chronic unilateral lesion.

Finding tubercle bacilli in the urine demands a decision whether "the patient is primarily ill from tuberculosis of the genito-urinary tract or has renal tuberculosis with active tuberculosis elsewhere" (Hunt).

Tuberculosis of the kidney may not infrequently be associated with genital tuberculosis (Caulk). Occasionally there may be, from an attempt at healing, a stricture occlusion of the ureter and subsequent autonephrectomy, but rarely spontaneous recovery (Braasch). Even with marked atrophy, active caseation usually persists and often produces symptoms.

Case No. 3 of our series, a woman with an occluded right ureter and no other evidence of tuberculosis, was observed at intervals during a 12-year period. Though the bladder, except for a closed right ureteral orifice, seemed quite normal, and the urine negative, and repeated examinations failed to reveal tubercle bacilli, she complained of extreme frequency—voiding at least every hour night and day. Persistent conservative treatment gave no relief and finally she agreed to an exploration of the right kidney. A very small atrophic caseous kidney was found. Following nephrectomy she has been almost entirely relieved, being able to retain urine for three hours without discomfort.

B. *Diagnosis*: As renal tuberculosis is "notoriously silent" (Caulk reports only 20 per cent having lumbar or renal pain), any case of persistent irritation of the bladder in which the diagnosis is not clear should be considered a possible tuberculosis of the kidney. With acid urine, low specific gravity, pyuria, and no organisms present, a careful urologic investigation is demanded (Folsom). Often the initial symptom may be hematuria. Tubercle bacilli in the urine may be difficult to demonstrate but are

found, as a rule, in 85 per cent though Caulk believes this figure may be high. In doubtful cases the radiologic changes may be significant, such as: (1) Calcification in the kidney; (2) a furred or feathery calix; (3) partial obliteration of the pelvis; (4) multiple strictures of the ureter.

Sacral or spinal anesthesia may be necessary for satisfactory examination (cystoscopic).

C. *Treatment*: If the presence of renal tuberculosis has been established, before nephrectomy can be considered it should be determined that: (1) The apparently unaffected kidney is sound and healthy; (2) there is no active tuberculosis elsewhere (quiescent or healed tuberculosis is *not* a contraindication).

In borderline cases intravenous urography can be especially helpful. In unilateral tuberculosis, with no other active lesion, nephrectomy is the treatment of choice; the usual antituberculosis measures should play an exceedingly important rôle in postoperative therapy. Caulk also suggests that a high fat diet is beneficial as the blood content in tuberculosis is low in fat and cholesterol. Although spontaneous recovery in very early bilateral lesions may occur, medical treatment alone has little to offer. Parsons states that without operation 85 per cent are dead in 5 years; Wildbolz, 58 per cent. After nephrectomy, Wildbolz figures the mortality at 20 per cent after 10 years; Braasch, 20 per cent after 5 years. Again Wildbolz states that 55.7 per cent remain well 10 years after nephrectomy; Sutter 61 per cent from 11 to 17 years postoperative, and Caulk 77 per cent approximately 5 to 10 years postoperative. The operative mortality is low—between 1 per cent to 2 per cent. In Caulk's series of 108 cases, there were no deaths. Therefore, Folsom states that once a clinical diagnosis of unilateral renal tuberculosis has been made the one and only rational procedure is removal of that kidney without delay, provided there is a sound functioning, normal remaining kidney.

II. PYONEPHROSIS

In this group are included both cases of acute hematogenous infections and those secondary to calculi.

A. *Hematogenous*: None of these has fitted into the picture of acute "carbuncle" of the kidney, described by Brewer many years ago. The acute lumbar pain, fever, pyuria, and frequency of micturition present no particular problem in diagnosis but prompt treatment is highly advisable. The active organism is usually the staphylococcus aureus, the primary focus being in the skin (boils, etc.). In two cases, nephrec-

tony was obligatory. A third borderline case was encountered in which the suppuration seemed largely in the perirenal fat—the patient recovered and remained well after simple decapsulation and thorough wide drainage of the fat.

In 3 cases, because of the colon bacillus, a huge acute unilateral pyonephrosis developed in an old bilateral pyelitis. The decision for operation in these cases may be difficult and the wisdom of nephrectomy questioned, but two of these cases have remained well except for symptoms of pyelitis 8 years and 6 years after operation, respectively. Three months only has elapsed since operation on the third.

B. The decision for nephrectomy in pyonephrosis secondary to calculi should depend upon the number and character of the calculi, the extent of destruction of the parenchyma, and whether or not there are stones in the other kidney. Multiple renal calculi, with extensive abscess formation, large branched calculi with infection, and advanced renal suppuration in which calculus formation may be secondary, are indications for nephrectomy, provided the remaining kidney is normal. Stones in the pelvis, unless very large, and associated with marked renal destruction, should be treated conservatively. After removal of the stone or stones, drainage is best instituted by a nephrostomy. With bilateral kidney stones, even with infection, if any vestige of renal tissue remains, the kidney should be saved. Multiple drainage of the calices is usually advisable.

III. HYDRONEPHROSIS

All the cases of hydronephrosis encountered in this series have been advanced and unilateral—in some of which conservative treatment had been attempted elsewhere without success; all were nephrectomized.

Much interest recently has been created in conservative operative procedures for hydronephrosis, notably by the reports of Walters, Quimby, and Von Lichtenberg, though in former years Kuster, Fenger, and Peck, and others, had described efficacious conservative procedures (Moore).

Walters states that the indications for conservatism in surgery of hydronephrosis are limited to that group of cases in which the hydronephrosis involves: (1) Both kidneys; (2) one kidney of which sufficient parenchyma remains to justify preservation of the organ; (3) solitary kidney.

Hydronephrosis is usually found due to:

1. Anomalous blood vessels crossing the ureter and causing obstruction.
2. Peri-pelvic connective tissue adhesions.

3. Subepithelial fibrosis of the ureter (stricture).
4. Lateral insertion of the ureter with partial obstruction (Walters).
5. Obstruction of the ureter because of calculus.

Conservative surgery consists in:

1. Division of peri-pelvic connective tissue bands.
2. Division of anomalous blood vessels.
3. Re-implantation of ureter to a dependent portion of the pelvis—ureteropyeloneostomy.
4. Resection of renal pelvis—partial (Walters).
5. Removal of ureteral calculus.

Walters intimates any one of these procedures may be combined with nephropexy for dependent drainage or with nephrostomy when infection is present. Moore, in an exhaustive review, concludes that experience with conservatism in hydronephrosis indicates:

1. Plastic operations of the Heineke-Mikulicz type are not satisfactory.
2. Nephrostomy and splinting the ureter with an indwelling catheter, either through the nephrostomy or from below, are an advantage.
3. Large aberrant vessels should be saved; small ones should be ligated and divided. Often these vessels carry the blood supply to a not inconsiderable portion of the kidney. Complete division may lead to renal necrosis. (Walters suggests that in doubtful cases the vessels can be compressed and the color of the kidney observed; if there is no change, ligation can safely be undertaken.)
4. Infection cannot readily be overcome conservatively.
5. The type of procedure employed must vary according to the individual case.

In Walters' cases, the most serious postoperative complication was infection of the renal parenchyma. If this does not yield readily to catheter drainage, nephrectomy may be imperative.

Hydronephrosis caused by ureteral calculus should be recognized early, as simple removal of the calculus, except in the very advanced cases, permits proper drainage of the kidney pelvis and gradual resumption of function and prevents late destruction of the kidney.

IV. MALIGNANT TUMORS

The paucity of malignant tumors in this group is to be remarked; there was but a single case of adenocarcinoma or hypernephroma—discovered incidentally by routine exploration in connection with a cholecystectomy. It was a huge tumor of the left kidney high under the dome of the diaphragm and not palpable. Repeated questioning failed to elicit a history of either frequency or hematuria, the only complaint being pain beneath the left shoulder—yet the tumor was so large it had to be removed through an anterior (left rectus) incision. Suspicion is, therefore, raised that many of these cases may go unrecognized, because of obscure symptoms, until the tumor is palpable when the

lesion is so extensive (metastasis has occurred) that surgery is of no avail. It would seem that intravenous urography offers a means whereby some of these obscure cases may be detected. Furthermore, that merely with backache of uncertain origin renal tumor should be suspected.

The case of adenosarcoma (Wilms' tumor) occurred in a child, age 10 months—a very rapidly growing tumor occupying one-third of the entire abdomen. At exploratory operation, it was found to be so large and adherent that radical resection was abandoned and radium was inserted directly into the tumor—2400 mg. hours being given. The tumor fairly melted away. Three weeks later it could not be palpated and at subsequent operation a nephrectomy was easily done—the kidney having receded to the size of a normal adult kidney. The child 2 years after operation, is unusually healthy with no evidence of metastasis or recurrence.

There seem to be conflicting opinions with regard to the efficacy of radiotherapy for renal malignancy in children. Liebenenthal, and Prather and Crabtree are quite skeptical as to the value of radiation and suggest that the variation in the underlying pathology is a factor. The report of Dean and Pack seems more convincing. Fifteen cases were definitely benefited by radiotherapy and they recommended that preoperative and postoperative radiation be employed routinely. Certainly, the striking effect of radium in the above case would add further weight to the advisability and efficacy of preoperative radiation.

V. LIPOMATOSIS

The cases listed as renal lipomatosis have been difficult to classify. Lipomatosis of the kidney, *per se*, is exceedingly rare, only 34 to 35 cases having been reported up to 1931 (Kutzmann). One of our cases seemed to show definitely, with moderate atrophy of the kidney, a diffuse fatty infiltration associated with severe renal pain and absence of renal function and secretion and was completely relieved by nephrectomy. The other two, though showing moderate fatty infiltration, were markedly atrophic and might readily be cases of idiopathic unilateral atrophy, nephrectomy being indicated because of pain.

VI. RUPTURE—TRAUMATIC

It is generally agreed, following trauma to a kidney, that spontaneous recovery is the rule. Nephrectomy, however, was found necessary in a case in which the kidney was completely torn in half. Another case of severe kidney injury, in which conservatism seemed to suffice, developed severe late hemorrhage and died of a

rupture of apparently an arteriovenous aneurism of the renal vessels. Hematuria, following renal trauma, which does not clear up in three weeks usually signifies that spontaneous recovery is not likely to occur and operative interference should be considered. Again, intravenous pyelography may serve to indicate the extent of the renal damage and thus aid a decision.

In one case of calculus pyonephrosis, a heminephrectomy was done. The involvement was entirely in an upper calix with a separate half of a ureter. There was an excellent postoperative recovery but the patient has passed several small calculi since. The remaining portion of the kidney seems free from calculi and functioning normally now three years after operation. It is possible that heminephrectomy might have been used in the case of the solitary cyst as the cyst involved only the lower pole, but at the time of operation that procedure had not as yet been proposed. Heminephrectomy, as Barney has so well pointed out, has a very definite place in the proper conservative treatment of benign tumors and of pathology in renal anomalies.

CONCLUSIONS

Among the conditions that will require nephrectomy will be found renal tuberculosis, pyonephrosis, hydronephrosis, benign and malignant tumors, rupture of the kidney, and lipomatosis.

In renal tuberculosis, a differentiation should be made between diffuse bilateral miliary involvement and the more chronic unilateral lesion in which nephrectomy is definitely indicated. Nephrectomy offers the greatest hope for cure in unilateral tuberculosis. Because of late bilateral involvement, even in an original unilateral infection, early diagnosis is imperative. An unexplained pyuria and frequency of micturition is sufficient to arouse suspicion as the renal area is notoriously silent.

Pyonephrosis and hydronephrosis present certain problems in which conservative measures may suffice.

Diagnosis of renal tumor may be difficult because of the lack of urinary symptoms. In the treatment of adenocarcinoma in children, radiotherapy and surgery bid fair to be more efficacious than surgery alone.

Heminephrectomy may suffice in the treatment of benign tumors and of lesions in certain renal anomalies.

remains a healthy kidney, the patient does very well. Recently, I saw a patient who I had no reason to think had nephritis, but in whom one kidney had been removed for pyonephritis. Among other tests the urea clearance test was done. According to van Slyke this test shows impairment if approximately 50 per cent of the glomerules are out of commission. Our patient showed slight but definite deficiency of renal function as measured by the van Slyke test. I should like to ask Dr. Estes if there is any clinical evidence to suggest whether or not these patients are more liable in after years, long after operation, to renal insufficiency than a person with two kidneys? I am not referring to those cases in which there may be surgical disease of the opposite kidney.

ALBERT E. BOTHE (Philadelphia): Dr. Estes referred to the present trend of conservation in renal surgery, a practice with which every one is in accord. It is important that the surgeon have knowledge of the pathologic characteristics of the different types of tumors, lest conservatism result in radicalism. The type I refer to particularly is the so-called benign papillomata in the pelvis of the kidney. To illustrate this type:

A patient, a male, age 40, had a sudden attack of hematuria with no other symptoms referable to the genito-urinary tract. Pyelographic study of the right kidney showed a clearly outlined, filling defect in the pelvis of the kidney. The calices were well outlined and gave no evidence of a tumor. The function of this kidney was good and there was no evidence of any pathology involving the parenchyma. This was diagnosed as papilloma of the kidney pelvis. A type of tumor from which cells are easily implanted, especially when conservative surgical removal of the tumor is practiced. For this reason not only the kidney and pelvis but as much of the ureter as possible, were removed. A papillary tumor was found on a small pedicle in the pelvis of the kidney. The microscopic sections showed the kidney to have normal parenchyma and the ones of the tumor representative of benign papilloma. A 5-year follow-up on this patient gave no evidence of recurrence or of implantation.

This case illustrates the type in which radical removal of the kidney, kidney pelvis, and ureter should be practiced, regardless of the function.

Dr. Estes is to be congratulated on his judgment in using radium in the treatment of mixed or Wilms' tumors of the kidney. These tumors belong to the radio sensitive types and have been reduced considerably in size by preoperative roentgen-ray therapy, but I am not aware of radium ever having been used before this one reported by Dr. Estes. The pathologic sections of this type of tumor after roentgen-ray therapy show an extensive displacement of the sarcomatous tissue by fibrosis with very little effect upon the epithelial cells. Dr. Randall first advocated preoperative roentgen-ray therapy in this type of tumor before attempting surgical removal.

DR. ESTES (in closing): I was interested in the citation of the interesting case of adenocarcinoma that had been studied before and after irradiation. In our experience we would be very hopeful of the benefit of irradiation in these cases preoperatively and postoperatively. Preoperative radiation, by reducing the size of the tumor, will make nephrectomy considerably easier. We were surprised on examining the kidney in our case after its removal that its size had been reduced not only to that of an adult kidney but the tumor itself was a mass of fibrosis, only 5 or 6 cm. in diameter in the

Fourth Street and Broadway.

ABSTRACT OF DISCUSSION

CHARLES C. WOLFERTH (Philadelphia): We have been taught that if one kidney is removed and there

middle of the kidney. This remarkable change had occurred in 3 or 4 weeks following the use of radium with what might be considered complete atrophy of the tumor. We should keep in mind that there may be a difference in the underlying pathology of these tumors in children to account for the conflicting reports on the efficacy of radiation.

In answer to Dr. Wolferth's question, I would say that we had a follow-up report on all our patients except two. One has lived 12 years since nephrectomy;

3 or 4 have lived between 8 and 10 years. None of them, apparently, showed any symptoms following operation referable to kidney insufficiency. It is estimated that we have originally about 6 times enough kidney tissue to sustain life. If we remove one kidney we still possess 3 times more than is necessary for normal function and certainly our observation in this small series has failed to indicate any evidence of deficient kidney function following nephrectomy because of the stress of work thrown on a single kidney.

THE CURE OF INGUINAL HERNIA*

CHARLES F. NASSAU, M.D., PHILADELPHIA

A discussion on the cure of inguinal hernia may appear to be superfluous in these days when every young physician with an urge toward surgery apparently looks upon an operation for hernia as an easy and simple procedure. This, however, is not the case. Surrounded by the safeguards of a well organized operating room any surgeon can go through the motions of operating upon a hernia but, as in many other instances, the success of the operation itself is not assured because the patient recovers. Above everything else, the chief consideration is the final result; is the hernia cured and is the cure permanent?

It is hardly necessary to enumerate the varieties of inguinal hernia. The two main divisions are the indirect and the direct. The indirect hernia is the type in which, given properly selected patients, cures should be in the neighborhood of 98 per cent. It is in the direct hernia that the surgeon must be ready to meet conditions which are sometimes severe tests of his ability, be he ever so skillful, and even with the best technic this type will yield not more than 90 per cent of permanent cures. This estimate does not include those patients who, within a few weeks of operation, close heavy garage doors, carry heavy weights and are struck by automobiles.

Frequently a patient wishes to discuss the question of a nonoperative cure. It is true that hernias in small children are often cured by the wearing of a well-fitted truss for 6 or 7 years prior to the age 14. The possibility of cure is based upon one condition which is, that during these 6 or 7 years the hernia is never allowed to come down into the sac. This means that the truss must be worn both day and night. In boys and girls of comparatively tender years an operation for the cure of rupture is such a simple procedure and so rarely followed by recurrence that it is infinitely preferable to the long continued use of a truss. After age 14 a nonoperative cure is extremely rare.

Sometimes both young men and old men be-

lieve that the wearing of a truss for a number of years has cured them. The truss is then discarded but sooner or later the patient finds that he has a strangulated hernia. We should not forget, however, that age bears a certain relation to the wisdom of operation. At just what time in life is it safer to recommend operation or to depend upon a truss? For this no hard and fast rule can be laid down. The answer depends chiefly on not how old the patient is in actual years but how old his body proves to be. Some men are physically old at 40; others are still vigorous and wiry with 70 years behind them. There are times when even an elderly patient should be given an opportunity to be permanently cured by operation if an earnest attempt has already been made by a skillful trussmaker to control the hernia mechanically.

Not only should we consider the question of age and physical condition but there are some things in particular to which we must pay due attention in recommending operations of election for patients past 50. There is an old saying to the effect that a man is as old as his kidneys, and care should be taken not to operate upon a man of 60 if he has residual urine or experiences frequent micturition with perhaps an accompanying inability to void in the recumbent position. The surgeon who exercises his judgment should consider all the conditions which surround a patient, not only physically but the economic situation as well, and make his own decision without reference to any hard and fast table of age.

In some conditions we have no choice—operations of necessity upon those patients in whom operation has heretofore been an entirely elective matter. Confronted with a strangulated or apparently irreducible hernia, a reasonable effort should be made to reduce the hernia and thereby lessen the risk of the operation to follow. Any manipulation that aims at reducing a hernia should be of the most gentle character. The greatest possible help in reduction is a hypodermic injection of morphine followed by a somewhat prolonged and very hot relaxing bath.

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

Very frequently a hernia in which attempt at reduction has failed before admission to the hospital will reduce itself in the tub. There are many physicians in this audience who more than once have been ready to operate upon a patient for strangulated hernia, only to find that the ambulance ride to the hospital had caused the reduction of the hernia.

In the majority of instances, if reduction has taken place under such conditions, the patient should not be operated upon immediately but should have the benefit of a day or so of rest. The trauma to the ring and the insult to the bowel are not trifles that can be dismissed as unimportant.

It is not the wisest thing to proceed immediately with operation on a patient who has had a very recent reduction of a strangulated hernia. Here again no definite ruling can be made. If the strangulation has existed over a considerable period of time, it is entirely possible that there may be trouble in the bowel at the point of strangulation. If this is probable, immediate operation is, of course, the correct procedure. On the other hand, I know of no place in which traumatized bowel will recover itself more quickly than in its own warm habitat.

Of course, it is possible for a hernia to reduce itself *en masse*. With this question, however, we are not at present especially concerned. The observant surgeon will discover this and act accordingly.

In elective operations herniotomy should be done only after the surgeon has discussed with the patient the risk of operation, the possibility of recurrence, the loss of time, the economic side and other factors heretofore mentioned. The surgeon knows whether he has the ability to give the patient the best possible chance from the standpoint of mortality, wound healing, and freedom from recurrence and he should never have such a good opinion of himself as to forget that there is such a thing as death from embolism. It is rare, but for those of us who have done a large number of herniotomies and are not liars the truth must prevail; deaths can and do occasionally occur in the simplest hernia operations and at almost any age.

The choice of an anesthetic might readily be the title of a paper in itself and I shall mention only some of the better known varieties. If by some law I were to have no choice of anesthetic and were compelled to give all my patients one kind I should choose a skillfully given ether, which is the safest anesthetic for the majority of patients. Local anesthesia is also excellent. For many years I did perhaps 50 per cent of my

hernia operations under local anesthesia and I am not sure that this is not our best method. In the very aged, particularly in those rare cases in which bowel resection has to be done, no type of anesthesia approaches a local anesthesia.

I like spinal anesthesia least of all. It may be that it is proving to be more and more safe. The mortality is apparently low in the hands of the super-skilled. Reading carefully in the literature, however, makes one uncertain as to what sometimes occurs to the spinal cord. We have not yet learned all there is to know about spinal anesthesia and some of its late complications. It is no guarantee against the development of pneumonia, massive collapse of the lung, phlebitis, or embolism.

Within the last few years it would seem that we are turning more and more to the use of avertin: certainly this is very satisfactory when used as a basic anesthetic, particularly if supported by occasional nitrous oxide. Possibly it may in time prove to be safer and more pleasant than other drugs.

Regarding the type of operation, I see no reason to depart from the basic principles laid down by Bassini, with slight modifications when made necessary by varying anatomic conditions. This pattern can not be improved upon. As a matter of choice, Fergusson's operation should be applied only to operations on children and as a matter of necessity in the performance of the Torek operation on hernias associated with undescended testicle. In the direct hernias, in which there is often complete absence of the conjoint tendon, the utilization of the cremaster muscle, as pointed out by Halsted, and the transplantation of the rectus muscle through an incision in the outer side of the sheath or the reflection of a large part of the anterior sheath of the rectus muscle are all well recognized procedures and extremely useful in making a stronger closure. Whenever possible fascia should be overlapped. There are occasional hernias in which, in order to effect a better closure, the cord should be brought out of the upper angle of the deep wound like a bayonet joint and allowed to remain beneath the subcutaneous fat. I have never known these patients to experience any more pain or discomfort than if the cord is transplanted in the ordinary Bassini manner.

In very rare instances, in order to effect the permanent closure of a large hernia which was not controlled by truss, it is proper to discuss with an aged patient the possibility of allowing the testicle to be removed. This, of course, does away with the problem of leaving an opening for the cord.

In large hernias, particularly in the sliding hernias of the sigmoid, we are confronted with the task of closing an opening without having sufficient anatomic material to make a strong wound. Occasionally it may be necessary to transplant a piece of fascia lata although the need for this rarely arises. What we can use, however, and perhaps should use more often than we do, is a long strip of autogenous fascia lata to approximate as much as we can, and then crisscross until there is a barrier of living tissue to close the opening.

The starting point of the crisscross and the end of all fascial sutures should be anchored by interrupted sutures of fine but strong silk or Irish linen, and by linen is not meant Pagenstecher thread. Prepared ox fascia can be used instead of the autogenous suture. I have used it upon a number of occasions and have found it to be entirely satisfactory. As now presented, however, these ox fascia strips are so short that they are inconvenient to handle. Neither autogenous nor prepared fascia should ever be knotted. In the first place, the knots will slip; in the second place, they make too large a bulk of suture material, which might readily be a factor in wound infection. The neck of small sacs can be safely transfixed and tied. Frequently the larger sacs require a line of suture and for this a continuous suture is permissible. At no other place in the deep wound are continuous sutures justifiable under any circumstances. Only interrupted sutures should be used.

If we all had the courage of our convictions, catgut would be banished from the operating room in operations for hernia and only silk and linen used. Unfortunately, sometimes we allow ourselves to be influenced by the surroundings under which we work, the type of assistants, and the possibility of too much manipulation in large and difficult hernias, and we depart from our convictions and descend to the use of catgut in too many patients. The use of double No. 2 chromic catgut in hernia work constitutes a surgical curiosity. Sutures of such bulk predispose to infection. Silk is safe and stays without causing irritation. In all the hernias in which I have used silk—many, over a period of 35 years—there have been only 2 infections which were sufficiently severe to require the removal of 1 or 2 sutures. I cannot controvert the opposing argument of many that if I had used silk in every hernia I might have had to remove more sutures.

Speaking of infection, Ananias was the only surgeon whose wounds never became infected. Infected hernia wounds, however, should be so

rare that the surgeon needs to look up his records to find out when such a disaster occurred.

Drainage is seldom required in hernias and under only two conditions: First, if there is a heavy layer of fat in the abdominal wall and a great deal of infiltration has been used; under such circumstances small gauze wicks may be inserted here and there. These can usually be removed in 48 hours. Second, in the event of a difficult dissection of a large hernial sac, in which a hematoma might form in the scrotum. Here it is better to bring the drainage out through a stab wound in the scrotum rather than to introduce it at the lower angle of the hernia wound. The drainage should not communicate with the area of the sutured fascial line.

The percentage of recurrence in hernias is something that cannot be determined with any degree of accuracy. Ward patients are almost impossible to trace over any prolonged period of time. In the majority of private patients it is possible to know just what results have been achieved. Even here, however, there are a certain number of individuals who cannot be located or do not care to let one know how they are.

Postoperative treatment should be that of any intraperitoneal operation—plenty of fluids and but little nourishment until the bowels open on the third or fourth day. For this a mild laxative should be given followed by the milk and molasses enema. After the bowel movement, in the absence of fever, the patient may be given a regular house tray after a couple of days of soft diet.

Posture after operation is something that is often neglected. For a long time I have followed the suggestion of Lyle, of New York, which is that the thigh be partly flexed on the side that has been operated upon and that the patient be permitted to have a couple of pillows to raise the shoulders. This relieves the strain upon the wound area and, to some extent, prevents unnecessary pull upon the suture line. Little children may be allowed out of bed any time after the eighth day. The adult patient should stay in bed from 12 to 19 days, this depending entirely upon the kind of hernia and the amount of suturing. If it is at all possible, no hard work should be permitted for from 6 to 8 weeks after the patient leaves the hospital.

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ABSTRACT OF DISCUSSION

W. H. HOWELL (Altoona, Pa.): Any one possessing a thorough knowledge of anatomy, a careful application of surgical principles, and the apposition of fascia to fascia wherever possible, will insure good results. It is interesting to study and ascertain from different surgeons their percentage of failures. Recently a surgeon

told me that his failures were between 2 and 3 per cent. From that I judge he had operated on 2 or 3 cases of hernia. A careful compilation of statistics is difficult because we never know when a hernia is cured. Recently I discovered a hernia which had remained cured for 20 years but the patient now has a recurrence. A properly placed incision, under strict asepsis, with a recognition of the anatomic structures, and a careful handling of the tissues, dissecting away the sac with a pair of sharp scissors rather than stripping the sac from the cord—mentioned only to condemn it—careful isolation of the sac to the highest possible level, there ligating it, then transplanting high up under the external oblique and transversalis muscles, carefully apposing the aponeurosis to the shelving of Poupart's ligament, should insure a satisfactory result.

The only way to treat cases of recurrent hernia is to tear down the structures completely, recognizing the

different structures, and building up the entire field again. In suturing the conjoined tendon to the shelving of Poupart's ligament by means of silk sutures, I have used a suture of living fascia obtained from the aponeurosis of the external oblique at its origin, $\frac{3}{16}$ inch in width, stripping it down on to the spine of the pubes. By means of a Gallie needle, the other sutures are reinforced and in this way a firm wound results. We have not had a recurrence following this method. The end of this suture is fixed to the fascia by means of silk sutures.

The question of postoperative pulmonary complications, irrespective of the anesthetic used, has been mentioned. I use gas oxygen almost exclusively but in a certain percentage of cases there have been postoperative pulmonary complications, collapse, infarcts, embolism, and so-called pneumonia.

FREE MEDICAL SERVICE

The following appeared as an editorial in the *New York State Journal of Medicine*, November, 1933:

The practice of medicine imposes an obligation upon both the doctor and the patient: On the doctor that his service shall be of the highest quality according to the standards of scientific medicine; and on the patient to reward the doctor for his service according to the recognized standards of economics of the community.

The maintenance of a high standard of scientific medicine requires that an individual doctor shall deliver the service to an individual patient. This personal relation must be preserved whether the system be that of private practice, or the public clinic, or state medicine. The method of delivery of medical service is not that of the drug store clerk who hands out what the patient requests. An essential part of the scientific service which a doctor delivers is a diagnosis, and in accordance with it he delivers the service which he judges the patient to require. An accurate diagnosis is as necessary as treatment, and is usually the more difficult of the two forms of service. There is only one professional standard of medical practice, and the doctor is under obligation to deliver it, regardless of the compliance of the patient with his obligations.

Although the doctor observes a single standard of scientific practice, he unconsciously divides his patients into 3 classes in regard to their discharge of their economic duties: (1) Those who pay him in full; (2) those who pay him in part; (3) those who do not pay him at all.

The population of a community consists of these 3 groups in various proportions; but always each group exists in considerable size. When a community is prosperous and business is active, the doctor is not greatly worried over the economics of his patients, for his practice is adjusted to the 3 groups and his income is stable. But during the 3 years of business depression through which the whole world is passing, great numbers of patients who normally are in classes 1 and 2 have fallen into the next lower group; so that now group one of the patients is abnormally small, and group 3 is abnormally large, and the doctor has difficulty in making a living.....

The inordinate growth of the free system of medical treatment has led naturally to a general recognition of its injustice. The doctor contributes taxes and free will contributions to the hospital and dispensary just as any other citizen does; and then in addition he is expected to donate his professional service which has a

value equal to that rendered by the architect of the hospital, the lawyer, and the business manager. As a citizen he must bear his own proper share of the burden of expense of providing food, shelter, and clothing to the needy poor in their homes, but in addition the burden of providing them with medical service falls on him alone.

A reformation of the system of giving medical service free has been attempted along two lines: (1) The home treatment of the needy; (2) hospital and dispensary service.

New York State has progressed so far that its law requires welfare officials to provide medical relief on the same basis that they provide food, shelter, and clothing; but the officials are only imperfectly educated in the interpretation of that duty. The county medical society is the natural agent through which physicians can approach the welfare officers and enter in agreements with them regarding the economics of the service.

At the present time those welfare officers who are willing to pay the doctors cannot obtain funds until the people are educated to make the appropriations. The success of a few county societies in entering into satisfactory agreements is an encouraging example to others to do likewise.

Less progress has been made in providing pay for medical service in hospitals and dispensaries. The doctors can begin with educating their own number regarding the fallacy of profit from any phase of free treatments. When the physicians of a community request a modest fee for treating the sick poor, the reply which they sometimes receive is a threat to import a doctor who is willing to do the work for little or no pay. The boards could not carry out the threat if doctors understood the economic principles underlying their action.

The welfare law of New York State points the way to a solution of the problem of free medical service in rural communities; the problem in the larger cities remains unsolved. One obstacle is the laws governing the actions of the hospitals in the municipal and general classes. To change those laws and the customs of the cities will be a greater task than the reformation of the system in rural sections.

When one considers the great progress in medical economics during the last few years, the outlook is bright for the full development of a more equitable system in the near future under the leadership of the medical societies.

EDITORIALS

THE HOLIDAY SEASON

The Christmas holiday season is the one season of the year which has a universal appeal to young and old, and to all sects and races in this great country.

Christmas is different from all the other holidays, as preparations begin months and even a year before. It is the season of giving, and the joy of giving reaches its peak. The custom of making gifts at this time is too deeply ingrained to be affected by temporary conditions. To those who can not give it is a matter of regret, and most persons manage thus to express their good will to the limit of their resources.

Though Christmas day may still retain some of the aspects of a pagan festival, it is none the less one of the two greatest Christian feasts, celebrated by all religious sects and denominations, regardless of creed, nationality, or color.

The JOURNAL wishes all its readers A Very Merry Christmas!

PENNSYLVANIA VITAL STATISTICS

In every age group in Pennsylvania up to 35 mortality is numerically lower; in groups between 35 and 44 it is proportionately lower. Up to the period of middle life, then, we are making a record that reflects credit upon the progress of medical science and social hygiene.

Particularly effective have been the campaigns against tuberculosis, holding down the death rate over the age of 10 and against infant mortality, offsetting a declining birth rate. But what of the expectations of life after 44?

At that point the good record begins to slump. From 55 on there is an increase in deaths. Naturally, conservation of youth means that the number of persons per thousand attaining middle age is greater, and the number of deaths among the middle-aged and the old must numerically increase. It is, however, disproportionately increasing.

We are living fast. The pace tells. The drain on vitality of an age that calls for greater activity in the pursuit of both business and pleasure has thus far defied the efforts of medical skill to offset it. This condition is, of course, not peculiar to Pennsylvania—it is in evidence wherever life has been geared up to a new speed by a rushing civilization. It points to the weak spot in our life-saving program.

Great sums are being spent upon research to combat disease thus far unconquered and to educate us in preventive care of the human machine. Many years of the life on which the inroads of mortality are growing belong in the useful period. That success should eventually attend the efforts to conserve them is an economic necessity.

MENTAL HYGIENE AND THE GYNECOLOGIST

There is possibly no patient in the history of medicine that has been as great a surgical martyr as that of the neurotic, psychoneurotic, or psychotic female. In the light of modern mental medicine, we see in the past the unnecessary removal of ovaries, tubes, uteri, appendices, gall-bladders, and perineal operations and resections, all of which were done with the hopes of curing psychic deviations and permanent psychic fixations.

The gynecologist evaluating the symptoms of his patient in terms of his speciality, should be in a position to recognize those psychic reactions associated with and a part of the gynecological picture from those of a disordered psychic due to heredity or other environmental factors.

From his position undoubtedly all repairs and surgical interference should be exercised as warranted to promote health and comfort of the patient; but when to regard psychic symptoms *per se*, independent of or associated with pelvic lesions as indications for extensive gynecological operations, is a responsibility of both a psychiatrist and gynecologist.

The gynecologist could be of tremendous help to the neurotic patient, if he would: (1) Insist on a mental hygiene program for his patient along with the prescribed physical, therapeutic, and surgical régime; (2) Evaluate psychic symptoms associated with or a part of gynecological conditions and differentiate them from conditions due to other causes as with the aid of the psychiatrist he could best determine whether surgical interference would be beneficial; (3) Be extremely careful of his promises that certain pelvic operations will cure definite psychotic and mental states; and (4) Not be lured too far in operative procedure in search of so-called focal infection, such as eroded cervixes, etc., the correction of retro-displacements, prolapses, etc., as a cure of frank psychoses.

BELIEVE IT OR NOT

We have before us the case of an aged minister who a few months ago had a major operation performed at one of the large hospitals in Pennsylvania. He made an uneventful recovery, and was doing very well until recently when he was seized with an attack of gastric hemorrhage, vomiting a large quantity of blood. He was immediately transported to the hospital in which he had been previously operated upon. On admission he was practically pulseless and his respirations were 4 a minute. An immediate blood transfusion was ordered. *A former intern of the hospital offered to act as a donor provided he was paid \$50.00 for his blood.* There were other donors who freely offered any blood necessary, one of whom was used. There was no relationship between the operation and the subsequent gastric hemorrhage. The patient died a few weeks later.

Pages could be written upon the episode herewith given. The facts are submitted without comment.

ADEQUATE MEDICAL CARE

The Medical Advisory Committee of the State Emergency Relief Board has endeavored to secure an outline of what constitutes "Adequate Medical Care in the Home." Consolidation of opinions of several authorities are here recorded to serve as a guide.

First: A brief recorded history of the illness with special emphasis on the time and manner of onset, and the development of symptoms from the time of onset to the time when first seen by the physician.

Second: A physical examination such as lies easily within the reach of every physician (made and recorded for inspection, if necessary, by the Local or State Medical Advisory Committees). This should include temperature, pulse, respiration; and examinations of the ears and throat in all children ill from any cause so as to rule out acute ear infections and tonsillar infections as the cause of the symptoms. At least one chest examination should be made with the chest properly exposed, auscultation of the heart, blood pressure in the majority of instances, and an examination of the exposed abdomen. All patients with symptoms referable to the rectum should have a digital examination. A vaginal examination need not be routine, but should always be made in the event of menstrual irregularities at any age and if there are symptoms referable to the pelvic organs. A urine analysis should be routine. Blood count should be op-

tional. A Wassermann test, if indicated, will be made by the State Laboratory, free of charge.

Most errors in diagnosis are made, not from lack of ability, but on account of failure on the part of the doctor to have necessary clothing removed for a complete examination.

COMMENTS AND EXCERPTS

Science and Research

According to Dr. Roger J. Williams and Carl M. Lyman, of Oregon State College, all life may involve the presence of a powerful growth-stimulating acid which has been found in many different kinds of plants and animals. Because of its widespread occurrence, Dr. Williams, who reported his latest researches to the American Chemical Society, has tentatively named it pathothenic acid. Tests show the presence of this acid in all things examined. To quote Dr. Williams: "The evidence shows that it is contained in all living substances from the highest mammalian form down to the lowliest worm and from the highly developed green plants down to the tiniest yeast, mold, or bacteria."

"The acid was discovered because of its effect on yeast growth. When placed in a solution in which yeast is growing it may increase the rate of multiplication from 10 to 20,000 fold in 18 hours. The fact that it is apparently present in all living cells suggests that it may act as a growth regulator in all cells. It is interesting to observe that yeast and mushrooms, which proverbially grow rapidly, are comparatively very rich sources of the acid."

Dr. Williams and his associate, who have recently concentrated this acid, find that quantities smaller than the head of a pin, in 250 gallons of solution in which yeast is growing, have a perceptible effect in speeding up the growth of the yeast plants. The origin of pathothenic acid is unknown. Dr. Williams suspects that it is one of the water-soluble vitamins. Plants cannot make this acid for themselves, but must obtain their supply from the soil.

At the recent meeting of the American Chemical Society, in Chicago, Cornelia Burwell, young research worker of Ann Arbor, Michigan, reported her investigations on the treatment of stubborn skin infections with complicated organic compounds built up in the laboratory as salts of various fatty acids made from petroleum. Miss Burwell stated that the effectiveness of these salts in actual treatment of disease was even greater than the tests indicated. Miss Burwell described remarkable results of the treatment of more than 100 cases of ringworm and a number of eczema and dandruff, and pointed out that the salts do not cure, but establish normal condition of the skin so that it can function properly and heal itself. Constitutional diseases, acne and psoriasis, were also healed, at least temporarily.

According to a report made to the American Chemical Society by Dr. Marjorie B. Moore, of the Abbott Laboratories, and Dr. Leon Unger, of Northwestern University Medical School, blame for hay fever may be placed on the proteins in the sneeze-producing pollens rather than on their sugary or starch constituents. Drs. Moore and Unger exposed hay-fever-causing pollens to the action of pepsin, which digested away most of the protein in them, leaving the polysaccharides unchanged. It was found that the pollens thus treated had lost much of their hay-fever-producing quality.

According to *Science News Letter*, the U. S. Public Health has received a cable from the International Office of Public Hygiene, Paris, of an official report of 300 deaths from bubonic plague in the area of Nungan, China. Quarantine officers state that at least twice as many cases as deaths must have occurred and in a country like China, in which reporting of communicable diseases is unsatisfactory, at least 10 times as many cases as reported deaths may be safely estimated. That would indicate that some 3000 cases of bubonic plague had occurred in the one area since August.

Drs. M. X. Sullivan and W. C. Hess, of Georgetown University, reported to the American Chemical Society at its recent meeting, that cystine, a sulphur-containing organic compound, is deficient in fingernails of persons suffering from arthritis. These two research men tried injecting colloidal sulphur into the blood stream of six arthritic patients and found that the amount of cystine in the patients' fingernails returned to normal, and the symptoms of arthritis abated. Because the presence of injurious substances resulting from the activity of microorganisms lowers the amount of cystine content of the body tissues, Drs. Sullivan and Hess are now working on the relation of certain microorganisms to arthritis.

In an address before the conference of scientists and relief workers, called by the U. S. Children's Bureau, Federal Relief Administrator Harry Hopkins said that there are six million children in this country without enough to eat because their parents are "taking the licking in this depression." These children are known to relief agencies. Their families are getting public assistance to the extent that the whole family receives fifty cents a day for all living expenses. The number of children getting private assistance is unknown. Mrs. Franklin D. Roosevelt told the conference that the physical results of malnutrition in children are not the only ones to be considered, and urged consideration of what undernourishment resulting from the depression will do to the minds, characters, and dispositions of American children. Undernourished children cannot take advantage of the things being offered by libraries, schools, and playgrounds.

Dr. Thomas Hunt Morgan, a former president of the National Academy of Sciences (1927) and the American Association for the Advancement of Science (1930), and at present associated with the California Institute of Technology, has been awarded the Nobel Prize in medicine for his discovery of the mechanism of heredity and his formulation of the theory of the gene. Dr. Morgan developed his theory through mathematics and the use of numerical data obtained from an enormous amount of research work and experiments with the ordinary fruit fly. He observed that certain genes, if inherited from one parent, are associated also in the offspring, the frequency of the associations varying. Dr. Morgan accounted for these variations by a change of partners between parts of the paired chromosomes, the more remote ones changing more frequently; and the nearer ones, changing less frequently.

Dr. Roland L. McCormack, of Louisville, Ky., told a recent meeting of anesthetists in Chicago, that he had successfully treated convulsions and hemorrhage after childbirth by means of inhalations of carbon dioxide and oxygen. He found this method was successful in the resuscitation of infants that had been suffocated at birth or whose respiratory apparatus failed to function normally soon after they were born.

According to the opinions of the experts who attended the annual clinical congress of the American College of

Surgeons, those who suffer from cancer have almost as much chance of being "cured" as those who suffer from other diseases. Records of more than 12,000 cancer patients who have remained "cured" and well for 5 years or longer have been collected. To quote Dr. Charles A. Duke, of Oakland, Calif., "Cancer is an arrestable disease like tuberculosis, not a curable disease."

PHYSICAL THERAPY

Treatment of Flat Feet by Corrective Exercises.—In an article in *Clinical Medicine and Surgery*, March, 1933, J. C. Elsom reviews the subject in some detail and emphasizes the differential diagnosis. He states that as an aid to diagnosis the recording of permanent foot prints is helpful. Orthopedic treatment is not the purpose of this paper, and therefore, while Elsom appreciates its place and value, he confines himself to corrective exercises. He states: 1. Correct gait is a prime consideration. The proper position of the feet in walking is the maintenance of a parallel position of the feet. They should never be turned outward; one should walk with the feet pointed straight forward.

2. When the toes are turned inward, a corrective position is established. The so-called "pigeon-toed" gait should be consciously practiced for a considerable period each day. A strong exercise of this nature is the following: In the standing position the toes should be sharply turned inward, with the heels well separated. From this position the patient should rise sharply on the toes from 20 to 50 times or more.

3. The feet are placed parallel; the patient throws his weight on the outer borders of the feet and assumes the varus position. This exercise should be repeated slowly until some fatigue is felt. Walking a few steps on the outer sides of the feet may likewise be practiced. A similar exercise, but more moderate, is taken while the patient is seated. The legs are outstretched; the patient attempts, by strong muscular action, to place the soles of the feet together. This of course cannot be done, but the attempt brings into play the muscles which directly strengthen the arch.

4. Considerable relief is afforded, in painful *pes planus*, by crossing the feet while seated; thus the varus position is assumed passively.

5. In the recumbent position, the knees should be extended alternately, as in the pedalling position on a bicycle, making large circles in the air with the feet and legs, pushing with the heels on the upward motion, with sharp plantar flexion on the downward motion.

6. One should stand with the toes over the edge of a low, flat stool, bench or similar support, and forcibly exercise the toes in plantar flexion. A similar exercise may be done by walking barefoot, or with light shoes with flexible soles, along the rungs of a ladder placed on the floor. The toes should be turned inward somewhat and should grip the rungs of the ladder with each step. Two ladders may be used, placed side by side and elevated in the middle by some support. This forms an angle like the roof of a house. The angle, however, should not be too sharp (about 150 degrees). This is a splendid corrective movement, but must not be used until the muscles have become strong enough to do the exercise without causing pain.

7. A simpler exercise consists in walking along an imaginary line the right foot stepping over the left side of the line and the left foot stepping over the right side of the line.

The object of all of these exercises, and many similar ones, is to strengthen the muscles directly concerned in the support of the arches. The exercises should be begun mildly and continued with great regularity for weeks or months. It has been my experience that many cases of *pes planus* are materially benefited by these exercises, which should be used in conjunction with the usual orthopedic measures. Since the continuous wearing of arch supports tends eventually to weaken the muscular groups, regular exercise of the muscles concerned seems altogether desirable and beneficial.—*J. A. M. A.*

Vitamin D Milk.—McBeath and McMahon furnished 1 quart of vitamin D milk to 25 mothers who were selected from a prenatal clinic at about the sixth month of pregnancy. At 2 months of age and each month thereafter, the baby was to be returned to the pediatric clinic for thorough physical and roentgen examination. Control babies were selected from the pediatric clinic at 2 months of age and given the same examination once a month. The diets of the mothers in the 2 groups varied only in the vitamin D milk, the control mothers having a quart of ordinary milk daily. The study was to be continued until the babies were 6 months old. A definite protection against rickets was evident in the infants of the mothers who used vitamin D milk during pregnancy and lactation and as a complementary feeding. The severity and overwhelming incidence of rickets in the control cases, compared to a milder type and fewer cases in the vitamin D group, can be interpreted in no other way.—*J. A. M. A.*, Oct. 7, 1933.

INDUSTRIAL MEDICINE

Noise Deafness in Industry and Environment.

—Dr. J. Coleman Scall, New York City, states that deafness resulting from noisy machines has heretofore been given little attention. According to the *New York State Journal of Medicine*, Nov. 1, 1933, in a report published by the New York State Department of Labor, September, 1930, on "Effect of Noise on Hearing of Industrial Workers," tests made in groups of 1000 workers definitely indicated that temporary or permanent impairment of hearing is produced by constant exposure to certain noises and vibrations. These noises and vibrations can be measured accurately at any given place by a specially equipped audiometer. Beck established a standard measure of intensity of sound. He proves that very noisy occupations cause deafness and that the deafness advances in time and severity in direct proportion to the intensity of the noise.

There are three types of deafness. The first is catarrhal deafness which involves the middle ear and affects the air conducting apparatus. The second is nerve deafness and involves the inner ear and also affects the auditory nerve. The third, which is known as otosclerosis or progressive deafness, is a hopeless condition and cannot be prevented, arrested, or alleviated.

Eliminations of floor vibrations could be accomplished by providing rubber soles for workers in noisy occupations. Silencers should be put on all exhausts. Welding should be substituted for riveting. Noisy machines should never be congregated but separated in large airy rooms. There should be otologic examination of all applicants for work at noisy occupations and elimination of those found with impaired hearing and those having a familial history of deafness. Where

cotton plugs are used to stop up the ears they should be considered worthless unless the plugs are first smeared with vaseline or wax. In cases where deafness is progressive the person should be transferred to another department in which less noise exists.

Once progressive deafness has set in, treatment is usually hopeless. The disturbed hearing will change into progressive deafness and will continue so in spite of treatment or changing of occupation or environment.

Hearing once damaged can seldom be improved or restored. Unless proper action is taken noises will continue extracting their toll of deafness, despite the present trend to eliminate them. This is seen today in the advertising of noiseless typewriters, the substitution of electric welding for riveting, and the installation of silencers and mufflers for automobiles, gas engines, and guns.

Oncoming deafness caused by occupational noise gives no warning whatsoever, except if the condition is accompanied by head noises. Examination and treatment should be given when the hearing first begins to decrease since only then can permanent loss of hearing be prevented. Industries that cause deafness should employ deaf persons from the start.

In arriving at the amount of loss of hearing in an individual case we should keep in mind that where large groups of normal cases were functionally tested hearing defects were found in the majority of cases. This was attributed to the common affections of the nose and throat so prevalent in city dwellers.

Railroad companies, to protect the safety of the traveling public, should have each applicant examined otologically before employing him. They should continue to examine him periodically at fixed intervals, since many disturbances of hearing occur during time of service.

Protection of Workers Exposed to Chromium and Its Compounds.—The harmful effects of chromium compounds on workers, according to a recent publication of the Industrial Health Section of the Metropolitan Life Insurance Company, "can be wholly eliminated, or reduced to a minimum, so that the risk becomes negligible."

In industrial work, exposure to chromium and its compounds, either through contact with the dry material, with solutions, or with dust and vapor in the air, often causes troublesome, though not serious, effects of various types in workers. Because of the increasing number and diversity of uses of chromium and its compounds, efforts have recently been renewed towards methods of protection of exposed workers.

The Metropolitan Life Insurance Company has completed a study of causes, effects, and preventive measures which have recently been published in an illustrated pamphlet. This publication is a careful and scientific analysis of the problem. In discussing preventive measures, the report states that the "responsibility is equally divided between the management and the worker. Periodic medical examination and inspection of the skin and mucous membranes of the nose and mouth, on resuming work after absence for any cause whatever, of employees engaged in chrome operations, have been found effective in reducing the prevalence of chrome ulcers and in indicating the efficiency of protective measures. Note should be made of any small abrasion or cut and the denuded area should be covered with waterproof plaster before allowing the employee to resume his work."

Readers who wish to obtain copies of this pamphlet may do so by writing the Policyholders Service Bureau, Metropolitan Life Insurance Company, One Madison Avenue, New York City.

MEDICOLEGAL NOTES

Notices of Judgment under the Food and Drugs Act.—According to an article with this title in the *Journal of the Franklin Institute*, July, 1933, the Federal Food and Drugs Act was approved, June 30, 1906, and became in force and effect from and after Jan. 1, 1907. One clause of the Act provides for the publication of notices of judgment of the court in cases brought under the Act. These notices are issued in serial form by the United States Department of Agriculture and, at present, by its Food and Drug Administration. Notice of Judgment No. 1 was issued May 2, 1908. The latest notices issued are dated May, 1933, and are numbered consecutively 19,901 to 20,000, both inclusive. Therefore, in the period of slightly less than 26½ years since the Act became effective, 20,000 cases have been brought under it and its amendments, and have been decided in the courts. Incidentally, a period of 25 years has elapsed between the publication of the first and the 20,000th Notice of Judgment. The government has instituted court action against more than 40 so-called cancer "cures."

Compensability of Pneumonia.—In the course of his employment, a carpenter spent about an hour in a refrigerating room in which the temperature was from 10 to 20 degrees below zero. He developed pneumonia and died. His widow claimed compensation under the workmen's compensation act of Pennsylvania. The sole question to be determined, said the Supreme Court of Pennsylvania, when the case came before it on appeal, is whether death was caused by an "accident" within the meaning of the act. The exposure, said the court, was not an accident. The ensuing chill was not a sudden and unexpected event, a mere chance or contingency. It was a natural and usual consequence of entering and remaining so long in a room with a temperature from 10 to 20 degrees below zero. Compensation was therefore denied.—*J. A. M. A.*, Nov. 9, 1933.

MEDICAL ECONOMICS

Sickness and the Unemployed.—An editorial with this title appeared in the *Daily Star (Toronto, Canada)*, Oct. 26, 1933. It will afford an idea of some of the medical problems "across the border." To quote this editorial: "The plan for free medical attention for the unemployed has been temporarily shelved by the Toronto board of control, but it is an issue which must soon be determined. Something must be done about it in justice not only to those who are unable to afford medical attention, but in justice to the physicians of the city who are at present placed in the position of refusing their services or going without their fees.

"In order that the plan may not be too heavy a burden upon the taxpayers, the physicians have agreed to attend relief patients at half the regular fee, while the province has agreed to bear two-thirds of this reduced cost. What the city would therefore be called upon to pay would be only one-sixth of the normal expense. In some cases the cost would be even less, for the relief-case payment to any physician in any month would be limited to \$100.

"There is also to be taken into consideration the fact that the absence of medical service and the consequent neglect of disease in its early stages may mean, in many cases, a hospital bill for the city to pay later. It is far better that the city should pay physicians a minor fee to attend patients when a quick cure is still possible than that disease should be allowed to get its grip upon them with consequent sojourn in some hospital at Toronto's expense.

"The problem is really much broader than the mere granting of temporary free medical assistance during the depression, although that is the phase of it which now demands attention. The fact is that during the most prosperous times there are patients—wage earners for example—who feel that they cannot take time off from their work to secure treatment, especially when it involves a complete rest from labor. So they keep on working and the disease pursues its course, until finally a cure is no longer possible. That tragedy is familiar to all physicians. It emphasizes the need of state health insurance but, pending the establishment of that reform, the problem, aggravated by widespread unemployment, must be dealt with in a temporary way.

"The depression found Canada quite unprepared in this regard—without unemployment insurance for those who cannot find work and without state health insurance for those who are sick as well as workless. The need for these two systematic safeguards against family misfortune has been emphasized by the misfortunes of the past few years."

Medicine and Surgery in the British Isles.—Benjamin F. Coe, of Indiana, Pa., has an article on this subject in the *Bulletin of the Indiana County Medical Society*, November, 1933. Dr. Coe bases the article on 3 months' graduate work in Liverpool and one month in Edinburgh. He makes the following reference to the panel system which is in effect in the British Isles:

"I talked with many panel doctors, especially from Edinburgh and Aberdeen. This latter is a woolen manufacturing center. Persons are satisfied with the panel system. They opposed it at first. It has been a good thing because of the depression. It is taken out of the hands of politics and organized charity. It divides the burden between the employer and the individual. The employee pays 5 pence a week and the employer pays 8 pence. Technically it is run by the government. The government has farmed it out to half a dozen insurance companies, especially the Ocean Insurance Company. The individual gets free medical and surgical attention. It costs him 5 pence a week or about 40 cents a month. Almost every one is poor but no one goes hungry there. All get medical care. Any medical doctor can start a panel of his own. He receives 8 shillings and 4 pence a year per individual, which equals \$2.00. He can sell out his panel or his widow can sell his panel. Some doctors make \$5000 a year. A doctor may not have an assistant unless he makes \$5000 a year. The assistant gets \$2250 a year. The doctors are not overworked. The board in charge of the panel system are mostly medical men who see that justice is done the doctor in investigating complaints. In regard to the dole there are surprisingly few on this. Nearly all were employed at something. Men in the mines make \$2.50 to \$3.50 a day. Women do most of the work on top of the ground. Housing conditions in the mining towns are fair but they must pay \$15.00 a month rent plus rates. Every worker must pay 33¼ per cent of his income to the government in taxes. The medical profession are a splendid body of men. They are earnest, conscientious, and cap-

able. The private doctor gets better fees proportionately than we. The good men get \$5.00 an office call. They get \$500 for a fractured femur. It is estimated that the average income from a panel is \$3000. Doctors are satisfied with the arrangement."

Concerning "Coöperative Funds."—The following letter has been sent to members of the medical profession of Philadelphia by a dentist. Evidently, "To him that hath shall be given."

Dear Doctor:

Economic factors, over which none of us have had control, have enormously increased the demands upon us for radiographic work at reduced fees. These demands have been for really deserving patients, unable to afford the necessary x-ray examinations.

Therefore, in order to meet this problem, we have decided, as our share in the recovery to normal times, to set aside predetermined amounts, (20% of the regular fee charged, except for full mouth examination, from which we will set aside \$1.00 each case). We will call these amounts "Coöperative Funds," of which a fund can be created by each doctor for his own patients. The fund accumulated by us for your patients can be applied toward the fee of any patient, who in your judgment is deserving, or any one to whom for any personal reason you may have occasion to apply the fund. As you are in the best position to decide which of those whom you refer to us should have the advantage of this service, we leave the matter entirely to your discretion. If you wish, you may even apply the allowances of several cases to an individual case. However, in view of the fact that we are coöperating to this extent, we feel justified in requesting that the applications for reductions be limited strictly within the above stipulated amount.

Confident that you will find this new plan convenient to you and beneficial to your patients, and hoping to be of service to you, I am,

.....

Milbank Memorial Fund Expresses Disappointment Over Final Report of the Committee on the Costs of Medical Care

Disappointment over the final report of the Committee on the Costs of Medical Care, the chief financial supporter of which was the Milbank Memorial Fund, was expressed in the annual report of that foundation, made public Oct. 9, 1933. The Fund considers its investment well worth while because of the important factual contributions by the Committee's staff to the knowledge of the problems underlying medical care. "It is a matter of extreme regret, however," said John A. Kingsbury, secretary of the Fund, in the introduction to the report of the Fund, "that the Committee failed to propose a comprehensive program which would solve the basic problem which it uncovered."

"This failure," said Mr. Kingsbury, "cannot be ascribed wholly to a lack of vision or of courage on the part of all its members; in all fairness, it should be said that much of the fault lay with obstructionists' tactics on the part of certain groups of physicians who generally control medical organizations and often are able to use the great prestige of these organizations to prevent, rather than to promote, the delivery of adequate medical services to all the people. Such an attitude is difficult to understand at the moment since it is obvious that no solution will meet the underlying problems of providing medical care to all the people which

does not, at the same time, provide better facilities for scientific medicine as well as higher compensation for the rank and file of physicians; which does not safeguard the confidential relationship between patient and doctor, and which does not guarantee the freedom of choice of physician to the patient and full scope for physician, for private practice among that portion of the population which can afford to pay for it. But looking at the history of medicine and public health in perspective, such an attitude is not so strange as it appears; it has characterized the practice of medicine for centuries. As in other instances, when the public good becomes predominant, this phase of medicine will pass and a comprehensive plan will emerge and will be adopted."

The need for a national health plan is emphasized in the report "which would embrace public health and preventive activities, private medical and voluntary social services, and properly directed measures for strengthening economic security for the entire population."

"A plan for the conservation of the people's health on a national scale," said Mr. Kingsbury in comment, "ought to be given immediate consideration. A critical condition is facing the health authorities in many sections of the country because of diminishing support of public health services. Since 1931, appropriations for these purposes have been cut in 40 of the 48 states of the Union, an average of 10 per cent. In some states the reduction in appropriations for public health has amounted to 60 per cent. This means that many counties, cities, and even whole states have been obliged to abandon vital health services. This is notably true in Alabama, New Mexico, the Dakotas, and Indiana where the State Department of Health has been virtually abandoned. The seriousness of the situation is aggravated by the depression. The demand for medical services, preventive and curative, has increased. Existing clinic facilities are overtaxed, the 'case load' of visiting nurses is far too heavy, physicians are burdened with charity practice, and public health departments are unable to carry on essential preventive activities.

"The warning given more than a year ago by William H. Welch, the Dean of American Medicine, at the annual meeting of the Fund's boards of counsel and widely published at the time, is coming true. It will be recalled that Dr. Welch then said: 'Too great economy as far as health is concerned, because of the current depression, is particularly dangerous to the welfare of growing children. Undernourishment of children is not likely to show itself immediately, but is bound to show its effects later, when it is probably too late to remedy. The ground lost by undernourishment in childhood may never be regained.' Already the reports are coming in of increased malnutrition among school children, of higher sickness rates among the unemployed, and of rising infant and tuberculosis mortality in areas hard hit by the depression."

Mr. Kingsbury pointed out that New York State had set a notable example under the leadership of President Roosevelt when he was governor, in formulating a state health program by the appointment of a State Health Commission. He recalled the introduction to the report of this commission in which Governor Roosevelt said: "Nothing can be more important to a state than its public health," and expressed his conviction that the President, in the near future, would take the initiative in the nation as he did in the State of New York in furthering the public health through the adoption of a comprehensive national health plan.

The Fund is continuing its studies of insurance against unemployment, costs of medical care, and loss

of wages during sickness as possible means of aiding greater economic security, and is concentrating much of its interest upon the development of practical ways in which public health administration may be made more effective.

The grants of the Milbank Memorial Fund for all purposes in 1932 totaled \$338,004.55, bringing to \$9,-325,580.25 the aggregate amount of its appropriations since its foundation in April, 1905. Aside from substantial grants made to emergency unemployment relief, totaling \$612,500 in 3 years, the principal interests of the Fund, as estimated by its grants, continued to be in public health and closely related fields.

National Health Plan

An outline of a national health plan, supported by federal aid to states, and proposals for immediate steps to meet the present emergency, are contained in a statement by John A. Kingsbury, secretary of the Milbank Memorial Fund, published in the *Fund's Quarterly Bulletin*, Oct. 31, 1933.

According to Mr. Kingsbury: "The time has come when the failure to establish any well-considered plan of health conservation on a nation-wide scale should be faced frankly and honestly by leaders in medicine and public health to whom the Government looks for constructive advice." Among the reasons given for delay in the establishment of a national program are legal limitations upon the functions of the United States Public Health Service, absence of coördination of the various federal health agencies, and lack of federal aid to states. The statement declares that "the President and Congress should have placed before them a real plan of public health."

Essentials of a national plan, according to the statement, are "not merely the control of communicable diseases but the full use of all facilities for prevention of physical and mental impairments, medical and dental care, and social relief.

"These services—preventive and curative—should be made available to all classes of the population in all communities, not merely to the rich and the indigent nor only in some localities or some areas," continues Mr. Kingsbury's statement. "By whatever means that are most effective and acceptable, the services of private physicians and medical institutions should be co-ordinated with those of public health and welfare agencies."

"The cost of medical care should be defrayed from public funds whenever adequate service cannot be furnished by private facilities and whenever it cannot be paid for by those who need it; and some method of distributing the cost should be devised for a great mass of the population. Physicians and others who render medical and related services should be adequately compensated. Effective integration of local, state and federal health functions is necessary. Federal aid to states on a considerable scale should be accepted at the very outset as essential. The program must be national in scope."

It was pointed out by Mr. Kingsbury that no "new expensive agencies" are necessary and that "the existing machinery in the federal and state governments can be utilized and developed if a comprehensive plan is formulated and reasonably adequate federal appropriations are made." Three immediate steps are proposed, as follows:

"I. The integration and coördination of all federal health activities under a single head in one

department. This could be accomplished at once under the President's direction with such advisers as he may choose. Later it might be advisable to group all social, education, and welfare activities of the federal government into one department with a cabinet member as its head and assistant secretaries for each of the principal fields of interest.

"II. The formulation, by the federal head of public health activities, with the counsel of leaders in medicine, public health and social welfare, of a national plan of public health and medical care, for consideration by the President and Congress. Such a program should provide for: (1) Coördination of federal, state, and local functions and activities; (2) training of necessary administrative and scientific personnel; (3) setting up standards of efficient administration and evaluation of results; and (4) efficient use of federal, state and local funds according to needs as determined by health, not political conditions.

"III. Federal appropriations to supplement state and local funds for community health, for medical care of those unable to pay for it, for construction of necessary medical and health facilities where needed, and for education of personnel. The necessity for federal aid cannot be blinked at; it is essential to any effective program. Whatever amount may be estimated as immediately necessary after a careful survey by the federal and state authorities will be almost trifling in comparison with the billions of dollars now being expended for rehabilitation and relief."

In support of these proposals, Mr. Kingsbury asserts that the absence of any considerable decline in the death rate among middle-aged adults and the continued prevalence of sickness and impairments from preventable causes constitute "a sad commentary on the failure to apply the results of medical science," a situation which is aggravated by the depression. Existing facilities for medical service and health protection, it is stated, are "grossly inadequate." Lack of medical care for a large proportion of the population, underpaying of many physicians, insufficient funds for public health in localities and states, and "niggardly appropriations" for federal aid to states, are also referred to. The existing method of leaving problems of national health to communities and to states is characterized as having "failed ignominiously." "The plain fact," the statement says, "is that minimal public health activities were grossly inadequate in a very large part of the area of the United States even in the heyday of our prosperity. Since 1931, even these facilities have been severely curtailed, especially in those states and areas in which the need for health protection is greatest. In 40 out of the 48 states appropriations for public health have been cut. In some states this cut is one-half. This has created an acute national public health problem. It is rapidly approaching the dimension of a national health emergency. It can no longer be neglected. The leaders in the public health movement have a responsibility and the President has a right to expect that they will present a health plan to be incorporated in the plan for national recovery."

Additional Articles on Medical Economics

Free Medical Service, p. 245.

Adequate Medical Care, p. 247.

Payments of Physicians for Authorized Services to Beneficiaries of Unemployment Relief, p. 258.

HOSPITAL ACTIVITIES

Licensure and Regulation of Private Nursing Homes and Private Hospitals

An Act was passed by the Legislature and approved by the Governor, June 12, 1931, providing for the licensure and regulation of private nursing homes and private hospitals within the Commonwealth of Pennsylvania.

This Act (No. 165) states that it shall be unlawful for any person, copartnership, association, or corporation to operate for profit a private nursing home or private hospital for persons requiring care, treatment, or nursing by reason of sickness, injury, infirmity, or other disability without a license. It places upon the Department of Welfare the responsibility for investigation and decision as to the adequacy of the facilities of the home or hospital to furnish the type of care and service specified in the application.

Since this Act became effective about 54 private homes and private hospitals have been licensed and a number are pending at the present time. There are, however, many more throughout the State which have not applied, or who are unaware of the necessity of a license. The Department of Welfare requests all County Medical Societies to bring this matter before their membership, and to inform the Department of any private nursing homes or private hospitals which exist in their locality.

PUBLIC HEALTH

Illness Among Depression Victims.—A preliminary report of a survey made jointly by the U. S. Public Health Service and the Milbank Memorial Fund, to determine the effect of the depression on health, reveals that victims of the depression, families that have become impoverished since 1929, have had much more sickness than the chronically poor whose poverty dates before 1929. Thus far the figures available from this survey show that those who were in reasonably comfortable circumstances before 1929 but have since dropped to comparative poverty suffered 55 per cent more illness than their more fortunate neighbors who were in the same economic status in 1929 but had had no drop by 1932.

It was found that families of the unemployed had 46 per cent more illness than families whose heads were full time wage earners; families having part time workers only had 28 per cent more illness than families whose heads were full time wage earners. The illness was not limited to the children or aged of these groups. Most of the extra illness was due to respiratory diseases. Epidemic diseases of childhood, however, were more prevalent among children in more comfortable economic circumstances. The reason for this has not been determined.

Marital Status of Patients in Hospitals for the Mentally Ill.—The conclusion of statisticians of the Bureau of Research and Statistics, Department of Welfare, Commonwealth of Pennsylvania, is that married life appears to be a greater strain on women age 40 and younger though the trials of the marital state do not seem to affect men seriously until after they pass that time mark. According to the report as published in the *U. S. News*: Of 2207 new patients admitted to the State's mental hospitals in the past year, 42 per cent of the men and 47 per cent of the women were married. Comparison of the ages of the patients disclosed a curious reversal of the sexes around the age of 40.

Of 600 married women admitted nearly half were between 20 and 40; married men of those ages amounted to but one-fourth of their total number of 625.

In the age group from 40 to 60 the situation is exactly reversed. Half of the married men are in this age group and but 29 per cent of the women. Though women tend to marry earlier than men, indicating more married women than men under 40, in Pennsylvania this would amount to only about 14 per cent of the difference.

"It might be argued that the modern young woman finds herself in a very difficult transition period," the report said. "The conflict between independence and domesticity burdens the younger group much more severely than it does the older.

"There is less conflict for the young married man. The greater strain for him seems to come after 40.

"The average man probably stands up under a greater burden of strain year in and year out than do his women folk. He usually shows no evidence of slipping until past middle age."

End This Tragedy.—A call to support the most vigorous effort possible to control tuberculosis as voiced by directors of the Pennsylvania Tuberculosis Society follows:

The people of Pennsylvania have no more important and challenging problem facing them than that of continuing with all possible vigor and effectiveness the effort to throw off the burden of tuberculosis.

The fight to prevent and conquer tuberculosis was begun in this State within 10 years after the cause of the disease was found in 1882.

The imperative need now is that there shall be no relaxation at any point in the effort to conquer tuberculosis. The victory is still far from won. Thousands of persons continue to die in Pennsylvania each year from this disease and many more thousands, some to be found in every community and in all stations of society, are suffering from the malady. Tuberculosis continues to cause tragedy in hundreds of families and its widespread prevalence is economically and socially wasteful beyond measure.

Tuberculosis must and can be brought under control. Further progress against it will depend to a large extent upon continued and increased active participation in the fight by the people of the State.

Since the disease thrives and spreads under conditions of poverty with the accompanying physical and nervous strain and lack of adequate, nourishing food and sunlight, it is agreed among health authorities that there is serious danger tuberculosis will secure a new foothold as a result of the deprivations of the past few years.

The situation requires and demands that all the people of Pennsylvania shall give their support and assistance, even more fully than at any time in the past, to the physicians and public health authorities in carrying out every measure of prevention, discovery, and treatment of tuberculosis known from experience to be effective. This can best be done through contributing in the approaching sale of Christmas Seals, which is the approved means of raising funds for the private or citizens' tuberculosis prevention agencies in this State and throughout the country.

The Pennsylvania Tuberculosis Society, which is affiliated with the National Tuberculosis Association, and local citizen organizations in all sections of the State are anxious and prepared to give the best possible assistance in holding gains made against tuberculosis and in efforts toward complete control of the disease.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THE need for assorting cases of pulmonary tuberculosis into definite groups led, some years ago, to the formulation of a scheme of classification. It is based primarily on the extent of the lesion and is now widely used by sanatoria and clinicians. In recent years, interest has been centered on the character of the fundamental tissue reaction in the lungs. Accordingly, Dr. George G. Ornstein and his coworkers have attempted to classify the disease on a qualitative basis of tissue reaction resulting from infection by the tubercle bacillus. They describe three main types of acute tuberculosis. Abstracts of the paper by Drs. Ornstein and Ulmar follow.

ACUTE FORMS OF PULMONARY TUBERCULOSIS

The authors disagree with the conception that tuberculosis usually begins as a minimal lesion and slowly progresses to the far advanced stage. They point out that inflammatory forms can occur with an acuteness not usually attributed to tuberculous infection, a small or large part of one or both lungs being involved within a few hours.

The Exudative Type

This is characterized by an intense inflammatory reaction produced by a small dose of tubercle bacilli in highly sensitized tissue. The response is chiefly serous, there is little if any destruction of tissue and the process clears by resolution.

Clinically it is frequently confused with the acute cold, grippal infections, and bronchopneumonia. The patient is taken acutely ill with fever, cough and expectoration. Fortunately, hemoptysis (40 per cent of cases) or history of contact frequently indicates tuberculosis. Physical signs are scanty. However, roentgen ray is startling because of the extent of the lesion. Complete resolution rapidly occurs, frequently leaving no trace of the original infection.

Therapeutic indications are: (1) No interference with the normal return to *status quo* by any operative procedure, and (2) avoidance of reinfection.

Case 1: A young woman, white, age 29, stenographer, presented herself because of an acute cold with cough, which persisted. She had had contact with a tuberculous father, who had died a few years previously, and more recently with a

sister, who had recovered from tuberculosis. Her cough was not severe and she expectorated at times. She had lost some weight and complained of marked fatigue. Physical findings were scant: dullness on percussion and bronchovesicular breathing over the right upper lobe posteriorly, and moist râles were also heard from the apex to the fifth rib posteriorly.

Roentgen ray disclosed a small annular shadow in the right upper lobe. There were some acinous productive changes in the left upper lobe. Examination of the sputum disclosed tubercle bacilli. The patient was sent to the country on a modified rest regimen. Her symptoms quickly disappeared. She gained weight rapidly. Six weeks later no abnormal findings were heard; she had no complaints; she gained 14 pounds. The annular shadow in her first roentgenogram had disappeared.

The Exudative-Productive Type

This type is undoubtedly due to a different balance between the mass of dosage or virulence of the organism and the allergic tissue reaction of the host. Instead of a purely exudative response there is evidence of tissue destruction, and the process of destruction and subsequent reparation is usually somewhat lengthy.

Clinically this form is characterized by an acute onset with toxemia of moderate severity which persists for a much longer time than in the exudative type. Eventually the symptoms disappear and roentgen ray shows clearing which is not, however, complete. A linear type of scarring, the result of the peculiar type of lung-

damage which occurred at the onset of the disease, always remains. The patient recovers not by any means of operative interference but by being let alone and protected against any further reinfecting dosage. Surgical interference, in the opinion of the authors, cannot improve upon the results obtained through the normal unaided process of nature.

Case 3: A man, white, age 25, became ill, June, 1929, with an acute pneumonic condition. For two weeks the patient ran an elevation of temperature which subsided. He was then roentgen rayed and a diagnosis of tuberculosis was made. Tubercle bacilli were demonstrated in his sputum. He was sent to a sanatorium and was put to bed. His cough and expectoration subsided rapidly.

A roentgenogram was taken June 1, 1922. In the dense exudative shadow there were some high lights which appeared like cavity-formation. A roentgenogram, taken 37 days later, demonstrated beginning resolution. An annular shadow was still present in the second interspace which was still interpreted as a cavity. Four months later the cavity had disappeared, and further resolution throughout was noted.

A roentgenogram was taken on Dec. 16, 1929. By this time the patient had completely lost his cough and expectoration. He had gained weight. The roentgenogram demonstrated further resolution. Because of the irregular absorption of the exudate the roentgenogram gave one the impression of a large annular shadow being present which could easily be interpreted as a large cavity. The patient enjoyed good health throughout this period; there were no physical findings. The roentgenogram of July 12, 1930, showed a breaking-up of the walls of this annular shadow leaving linear strands of fibrosis.

On Dec. 4, 1930, there were some linear strands in the right upper lobe. Roentgenogram of Feb. 14, 1931, showed still further resolution, leaving a few strands of fibrotic tissue.

The roentgenogram of April 12, 1932, showed no evidence of the acute inflammatory tuberculosis which had existed in the right upper lobe. At this time one would be very hesitant to state whether a tuberculous process had existed. This case is an excellent example of the possibility of resolution in acute inflammatory forms of tuberculosis. Any form of surgical or medical therapy would have produced a good result.

The Caseous-Pneumonic Type

Here, because of excessive stimulation of hypersensitive tissue by massive dosage, there is

an intense inflammatory response resulting early in the disease, in cell death with its resulting coagulation necrosis or caseation. As a result the patient is very ill and toxic with profuse cough and expectoration as liquefaction of the caseated area occurs. As the caseous material is sloughed out, toxic absorption begins to diminish and temperature and pulse gradually approach the normal. With the completion of the sloughing the patient feels relatively well although there is now a definite cavity present in place of the previous area of caseation.

From now on repair proceeds with resultant scar formation. What makes the ultimate outlook for this patient bad is the constant shedding of tubercle bacilli from the wall of the cavity with the ever present danger of bronchogenic dissemination and spread of disease. It is this bad mechanical end result that our treatment must aim to prevent or correct. The danger is not the cavity but the positive sputum. Some form of compression therapy is indicated and this must await the completion of the acute stage.

The ultimate goal is a negative sputum and if this is not achieved by the use of pneumothorax some other form of compression therapy must be used, notably thoracoplasty or apicolysis. The authors' experience with phrenic neurectomy has been totally disappointing.

Case 7: A young woman, age 25, who had been chronically ill a year and six months. Admitted to Metropolitan Hospital, June 9, 1931, complaining of cough, expectoration, and repeated hemoptysis, having had a severe one just before her admission to the hospital. The whole left lung was involved with multilocular cavities; her sputum contained many bacilli. Collapse of the left lung by pneumothorax had failed because of obliterate pleuritis. Roentgen-ray examination of Oct. 29, 1931, demonstrated an extensive tuberculous lesion involving the whole left lung, with the trachea and mediastinum pulled into the left thorax and a sharp rise of the left diaphragm. There was narrowing of the intercostal space throughout the whole left thorax.

A paravertebral thoracoplasty was performed in two stages by Dr. Coryllos. The general condition of the patient is improved. There has been little expectoration, with this little negative for tubercle bacilli. This is an excellent example of the importance of surgery changing the prognosis from a very poor to a most favorable one.

The Treatment of Acute Forms of Pulmonary Tuberculosis. Am. Rev. of Tuberc., Oct., 1933.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

PAYMENT OF PHYSICIANS FOR AUTHORIZED SERVICES TO BENEFICIARIES OF UNEMPLOYMENT RELIEF

The following letter, as well as the Rules and Regulations accompanying same, should be read carefully and referred to frequently by every member of our State Society having any contact with the rendering of medical service to those on unemployment relief.

Nov. 20, 1933.

To the Members of Medical Advisory Committees to County Emergency Relief Boards, the President, the Secretary, and the Chairman of Public Relations Committees, Component County Societies.

Dear Doctor:

A series of letters to County Medical Society Officers showing progress toward attainment of the subject of this letter, and requesting the appointment of County Medical Society Committees to advise County Emergency Relief Boards, is herewith concluded with the announcement that PAYMENT FOR MEDICAL RELIEF WILL BE INAUGURATED IN PENNSYLVANIA, DEC. 1, 1933.

Out of a series of conferences beginning July 27, 1933, between officers of The Medical Society of the State of Pennsylvania and Executive Director Biddle of the Pennsylvania Emergency Relief Board, and conferences on November 1 and 17 between Mr. Biddle and the undersigned Committee, the attached *Rules and Regulations* have been developed.

Every member of The Medical Society of the State of Pennsylvania agreeing to work on a County Medical Society Advisory Committee is urged to approach the County Emergency Relief Board on a dignified, conservative basis which may in no way reflect unfavorably on the more than three previous years' unremunerated service so freely and graciously given by our members throughout the State.

It is hoped that every member of The Medical Society of the State of Pennsylvania electing to respond to calls for his service as requested by those "on emergency relief" and as authorized by the County Emergency Relief Board, will, by the quality of his professional service and fairness of his charges, develop increasing public confidence in medical society leadership in all health problems.

The attached "Rules and Regulations" were approved item by item by the Pennsylvania Emergency Relief Board and the undersigned Committee after two conferences. If followed to the letter this "code" should limit useless discussions regarding its modification, and assure good medical service.

Dr. Harold A. Miller of Pittsburgh has been appointed by the State Emergency Relief Board as Director of Emergency Medical Relief, at the Capitol Building, Harrisburg.

The necessary printed forms, to be furnished by the State Emergency Relief Board, for inaugurating this service in your county will be in the hands of the Director of Emergency Relief in your county not later than November 27.

We would remind you that our Board of Trustees as well as the undersigned Committee have enjoyed close relations, courteous consideration, and satisfactory cooperation with the Pennsylvania Emergency Relief Board. We sincerely trust that the approach by all Component County Medical Society representatives to the Emergency Relief organizations of the respective counties will be with the hope and determination of developing and encouraging similar helpful relations.

If your County Medical Society has not appointed its Advisory Committee to your County Emergency Relief Board, please choose such Committee CAREFULLY but promptly, and report same AT ONCE to the Secretary of our Committee.

Your Society's next move should be to contact your County Emergency Relief Board through your own well informed and earnest Advisory Committee.

Very truly yours,

ADVISORY COMMITTEE TO STATE EMERGENCY RELIEF BOARD.

GEORGE L. LAVERTY, Harrisburg, *Chairman*,
W. BURRILL ODENATT, Philadelphia,
HENRY T. PRICE, Pittsburgh,
CHARLES H. SMITH, Uniontown,
WALTER F. DONALDSON, Pittsburgh, *Secretary*.

RULES AND REGULATIONS

Governing Medical Care Provided in the Home to Recipients of Unemployment Relief by Pennsylvania Emergency Relief Board

Introduction

The State Emergency Relief Board of Pennsylvania, realizing the need for a uniform policy for providing

adequate medical care in the home as a part of unemployment relief, has established a policy the essence of which is:

*(a) An agreement by the relief administration to recognize within legal and economic limitations, the traditional family and family-physician relationship in the authorization of medical care for unemployment relief beneficiary persons in their homes; the traditional physician-nurse relationship in the authorization of bedside nursing care; the traditional dentist-patient relationship in the authorization of emergency dental care; and

*(b) An agreement by the physician, nurse (or nursing organization), and dentist to furnish the same type of service to an unemployment relief beneficiary as would be rendered to a private patient, but that such authorized service shall be a minimum consistent with good professional judgment, and shall be charged for at an agreed rate which makes due allowance for the conservation of relief funds.

*The common aim should be the provision of good medical service at a low cost—to the mutual benefit of the unemployment relief beneficiary, physician, nurse, dentist, pharmacist, and taxpayer.

*The policy adopted shall be to augment and render more adequate facilities already existing in the community for the provision of medical care by the medical, nursing, and dental professions to the unemployment relief beneficiaries. It shall imply continuance in the use of hospitals, clinics, and medical, dental, and nursing services already established in the community and paid for, in whole or in part, from local and/or State funds, in accordance with local statutes or charter provisions. Federal Emergency Relief funds shall not be used in lieu of local and/or State funds to pay for such established services.

*The phrase "in their homes" shall be interpreted to include office service for ambulatory patients, with the understanding that such office service shall not supplant the services of clinics or dispensaries already existing in the community.

The State Emergency Relief Board has appointed an Advisory Committee to assist in maintaining proper professional standards in the provision of adequate medical care to recipients of unemployment relief, and in enlisting the coöperation of county medical societies through similar county committees in this program, namely, George L. Laverty, M.D., Harrisburg, *Chairman*; W. Burrill Odenatt, M.D., Philadelphia; Henry T. Price, M.D., Pittsburgh; Charles H. Smith, M.D., Uniontown; Walter F. Donaldson, M.D., Pittsburgh, *Secretary*. The State or County advisory committee shall be consulted by the State or local relief administration respectively with regard to disputed problems of medical policy and practice.

Scope of Participation

*Participation in the medical program outlined below shall be open to all physicians licensed to practice medicine in the State of Pennsylvania subject to local statutory limitations and the restrictions specified in these Rules and Regulations. Physicians, nurses, dentists, and pharmacists, who are licensed and registered to practice their respective professions in the State of Pennsylvania, shall be authorized to participate in the

provision of medical care for unemployed persons in their homes.

Qualifications of Recipients

Persons to receive medical care must be eligible for relief because of unemployment. The services covered are to be given only as a supplement to existing community facilities for providing medical relief to needy unemployed persons and their families. Care is then to be provided only in the homes of the unemployed, with the exception of ambulatory cases which may have office attention. While it is not intended to increase the public expense where medical aid is now provided for the unemployed, it is intended to provide such aid from public funds in cases where adequate medical relief is not now being given and to relieve private physicians heretofore compelled to bear the burdens themselves without compensation.

*Payment of hospital bills or payment for general institutional care, can not be authorized, but permission is granted for the payment of orders for medicines, medical supplies, and medical attendance in the home, subject to the regulations stated below. Bedside nursing and emergency dental service (specifically defined below) are within the scope of the relief program.

Medical relief shall be preferably supplied by the patient's own (or previous) physician. This policy allows freedom of choice and tends to maintain traditional family-physician relationships.

*Nurses' services afforded under this program shall not supplant present services, but augment or supplement their scope.

*All authorizations for medical, bedside nursing, and emergency dental care shall be issued in writing by the County Emergency Relief Officer, on the medical relief order blank, prior to giving such care; except telephone authorizations which may be given in emergency cases and be followed immediately by a written order. In the event of night emergency calls where the physician is uncertain whether or not the patient is eligible for relief, the patient's name and address must be reported to the County Emergency Relief Board within 48 hours. Investigation will then be made by the County Emergency Relief Board and, if it is found to be an approved case for relief, authorization must be issued.

Authorizations for bedside nursing care shall be issued on a recommendation by the attending physician, in cases where a physician is in attendance. When nursing care is required, the physician shall certify to the need for bedside nursing service as part of the medical care on Form 77N. Authorizations for medicine and medical supplies shall also be issued in writing on Form 77P and, in general, such authorizations shall not be issued except upon written request of the physician authorized to attend the person for whose use they are desired.

Acute Illness

Authorizations for medical care for acute illness shall be limited to not more than 2 weeks or 10 visits, and a maximum fee of \$20.00. The presentation of a bill, by a physician or nurse authorized to give medical or bedside nursing care to a home relief client, for the maximum number of visits shall imply that the physician or nurse will provide necessary additional care for the patient during that illness without additional authorization or compensation from public relief funds. Authorization for bedside nursing care for acute illness shall be limited to not more than ten visits, and a maximum expenditure of \$8.50.

Note: Paragraphs marked with asterisk (*) are taken almost verbatim from Rules and Regulations No. 7, issued by the Federal Emergency Relief Administration, Washington, D. C.

Chronic Illness

* Medical care for prolonged illnesses, such as chronic asthma, chronic heart disease, chronic rheumatism, diabetes, etc., shall be authorized on an individual basis, and in general, visits shall be limited to not more than one visit per week for a period not exceeding 2 months. Bedside nursing care for chronic illnesses, shall, in general, be limited to not more than 6 visits, the purpose of which shall be demonstration and instruction to some member of the household in the necessary care, in addition to giving such care. Care for chronic illness authorized under this section shall supplement and not supersede existing community services such as visiting nursing service or institutional care.

Obstetrical Care

* Authorization for obstetrical service in the home shall include a minimum of 6 prenatal visits, delivery in the home where possible, and a minimum of 3 postnatal visits. Where practicable, original authorization for obstetrical care shall be based upon the choice of the patient whether delivery shall be in the hospital or the home. Due caution shall be exercised that this authorization for delivery in the home does not involve undue risk to the patient for whom hospital care may be imperative. The physician authorized to attend the confinement in the home shall certify to the local relief administration, by the acceptance of such authorization, that in his professional judgment, delivery in the home will be safe. As above stated, hospital treatment and care can not be paid for from these relief funds.

The physician's statement for obstetrical service shall be rendered at the termination of his service.

Bedside nursing care for obstetrical patients shall, in general, be subject to the same restrictions and limitations stipulated above.

Special Services

* Special bedside nursing and dental services not covered elsewhere in these regulations shall be authorized only on an individual basis, and shall be subject to the restriction of the maximum expenditure specified for each type of service in these Regulations.

* Medical, bedside nursing and dental care shall not ordinarily be authorized by emergency relief officers for conditions that do not cause acute suffering, interfere with earning capacity, endanger life, or threaten some permanent new handicap that is preventable when medical care is sought.

Accessory Services

* Emergency dental care and bedside nursing service, for unemployed persons in their homes, may be authorized by the State Emergency Relief Board in any county where the County Emergency Relief Board has submitted to the State Emergency Relief Board sufficient data to demonstrate that the need for such accessory services can not be met by established local facilities paid for from public and/or private funds.

*(a) *Dental Care* shall in general be restricted to emergency extractions and repairs (see last paragraph of Special Services above).

*(b) *Bedside Nursing Care*, where authorized, shall conform to the procedure required in the above regulations. Standards of *accredited* local nursing organizations shall be followed by nurses giving authorized bedside nursing care to unemployed persons in their homes. It is proposed that such authorized bedside nursing care shall make full use of and not supplant or super-

sede existing local official services giving such care under the provisions of the local law.

In the interest of simplicity and promptness of payment that authorization from the State Emergency Relief Board insures, the following schedule of maximum fees is hereby established. Local established fees, where lower, must be the basis for determining the relief rates.

(a) For an authorized *home visit*—the prevailing minimum fee, but not to exceed \$2.00.

(b) For an authorized *office visit*—the prevailing minimum fee, but not to exceed \$1.00.

(c) For authorized *obstetrical care* in the home as specified under obstetrical care—not to exceed \$20.00.

(d) Accessory Service.

1. For an authorized bedside nursing visit not more than \$0.85.

2. For an authorized *emergency extraction* (to include cost of anesthesia) not more than \$1.00 for the first tooth, nor more than \$0.50 for each additional tooth; provided that the maximum charge for a given patient, including full mouth extractions shall not exceed \$10.00.

Bills for Medical Care and Allied Services and Supplies

* Physicians, nurses, and dentists, providing authorized medical care to unemployment relief cases in their homes shall submit to the County Emergency Relief Board monthly on or before the first day of the calendar month in which said medical care was provided, an itemized bill for each patient covering services to and including the twenty-fifth of the month (excepting obstetrical cases as noted above). Each bill shall be chronologically arranged and shall contain the order number, case number, name, age, and address of patient; general nature of illness or diagnosis; whether home or office treatment; dates of services, and status of the case at the twenty-fifth of the month—cured, sent to hospital, dead, needs further care, etc. Bills for medical care shall be accompanied by the original written order for such care, except for cases in which medical service under an authorization has not terminated during the month covered by the bill, in which cases the bill shall show, in addition to the details required above, the date and serial number of the outstanding order.

Retroactive Authorizations Shall Not Be Issued or Honored for Payment

Bills for accessory services (dental and bedside nursing) outlined above shall give the information required on Forms 78M and 77N, respectively.

* Bills for medicines and medical supplies, outlined in the following section shall be subject to the same general requirements. Bills for drugs shall list the name and quantity of each. The formula and number of each prescription costing more than \$0.25 shall be made a part of the pharmacist's bill.

Fees for professional services are to cover drugs and supplies ordinarily dispensed.

Medicine and Medical Supplies

* Physicians providing authorized medical care to unemployed persons shall use a formulary which excludes expensive drugs where less expensive drugs can be used with the same therapeutic effect.

* When expensive nonemergency medication is considered essential by the authorized attending physician

it may be authorized after approval has been given by the local medical advisory committee.

* All prescriptions for necessary drugs and medicines shall be filled from the National Formulary or the United States Pharmacopeia. To avoid excessive expenditures for remedies of unknown or doubtful value proprietary or patent medicines or foods shall not be authorized. Local relief officials shall make trade agreements with local pharmaceutical organizations and agree to reduced rates for prescriptions. (Prescriptions costing in excess of \$0.50 must have special authorization by the County Emergency Relief Board.)

* Authorizations for medical supplies shall be restricted to the simplest emergency needs of the patient consistent with good medical care.

* Authorizations for medicine and medical supplies shall not be issued except upon written request of the physician authorized to attend the person for whose use they are desired.

Note: The following is a direct quotation from Federal Relief Pamphlet No. 7: "The scope of medical care as above defined shall be construed to include: Bedside nursing care as an adjunct to medical care; and emergency dental service for those families that are receiving relief."

HAROLD A. MILLER, M.D., *Director*

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

Dr. Harold A. Miller, of Pittsburgh, recently appointed Director of Emergency Medical Relief by Executive Director Eric H. Biddle of the State Emergency Relief Board, has always been the type of medical man who delights the heart of the president of his medical society because of his ability and energy in undertaking and completing committee assignments. Dr. Miller is a member of the Board of Directors of the Pittsburgh District Nursing Association and also of the Public Relations Auxiliary Committee on Maternal Care of the Allegheny County Medical Society. He was president of the latter Society in 1924 and a member of its Board of Directors for several years.

CONTRIBUTION TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contribution to the fund:

Woman's Auxiliary to Lycoming County Society \$75.00

Total contributions since 1933 report .. \$622.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Nov. 18:

ADAMS: *Death*—William E. Wolff, Arendtsville (Med. Chi. Coll., Phila. '97), Nov. 3, age 64.

ALLEGHENY: *New Members*—Charles F. Berg, 858 Lockhart St., N. S.; John E. Bryson, 1309 Federal St., N. S.; Ralph G. Fabian, 420 Foreland Ave.;

Boyce M. Field, 1617 Brownsville Road; Joseph W. Hampsey, May Bldg.; C. Russell Schaefer, Magee Hospital, Pittsburgh; William G. Carman, 11 Joel St., Crafton P. O.; Frances M. DeBane, 411 Mitchell Ave., George A. Dragan, 424 St. Clair Ave., Clairton; George W. Floss, 2230 Columbus Ave., Swissvale; Arthur W. Glick, 208 E. 8th Ave., Homestead; Florence Gordon, 737 Braddock Ave., Braddock; Charles W. Reed, Braddock Hospital, Braddock; Ensign C. Balch, 1226 State St., Coraopolis. *Reinstated Members*—Harold Jubelirer, East End Trust Bldg., Pittsburgh; Frank S. Rossiter, 2023 Noble Ave., Swissvale. *Removal*—Milton M. Auslander from McKeesport to Ernest (Indiana Co.). *Deaths*—D. Grant Black, Wilkinsburg (Univ. of Pgh. '99), Oct. 14, age 70; Moses Schonfield, Pittsburgh (Univ. of Pgh. '01), Oct. 23, age 53; George W. Dippel, Pittsburgh (Univ. of Pgh. '02), Oct. 31, age 54.

BRADFORD: *New Member*—Harry S. Fish, Sayre.

CHESTER: *Removal*—C. Ira Pratt from Coatesville to 418 E. Main St., Parkesburg; Fred C. Aldridge from Devon to Wayne.

DAUPHIN: *New Members*—Charles J. Shillott, 1613 Revere St., Bernard Viener, 1001 N. Second St., Morris A. Silver, 126 State St., J. Moore Campbell, 720 N. 16th St., Harrisburg. *Deaths*—Maurice O. Putt, Oberlin (Univ. of Pa. '73), Sept. 29, age 81; Benjamin B. Jeffers, Steelton (Howard Univ. '97), Sept. 30, age 61.

DELAWARE: *New Members*—Joseph C. Cobots, 331 W. Third St., Chester; Rolfe M. Harvey, 101 E. Baltimore Ave., Media; Douglas C. Wasley, 1539 Chichester Ave., Linwood.

ERIE: *Reinstated Member*—Frank A. Trippe, 634 W. 18th St., Erie.

JEFFERSON: *Reinstated Member*—Charles R. Stevenson, Ebensburg.

LANCASTER: *New Member*—Max I. Meyers, 252 Walnut St., Lancaster. *Reinstated Members*—Henry J. Roddy, Jr., Conestoga; Henry D. Lawrence, 20 W. Market St., Marietta. *Death*—Howard A. Long, Brickerville (Balt. Med. Coll. '93), Sept. 14, age 61.

LEHIGH: *Death*—Alvin J. Kern, Slatington (Univ. Pa. '88), Oct. 14, age 68.

LUZERNE: *New Members*—William R. A. Boben, Blytheburn; Donald F. Closterman, 1166 Wyoming Ave., Forty Fort; Joseph F. Hoffman, 1276 Wyoming Ave., Exeter; Nicholas D. Mauriello, 407 Wyoming Ave., Wyoming; Herman A. Fischer, Jr., 316 S. Washington St., Wilkes-Barre.

LYCOMING: *New Members*—Frederic E. Sanford, Jersey Shore; Charles W. Straub, Hughesville.

MERCER: *New Member*—John H. Martin, Greenville. *Reinstated Member*—Irvin E. Rosenberg, Sharon. *Resignation*—Harold R. Leffingwell, Worcester, Mass. (to join Mass. State Medical Society).

MONTGOMERY: *New Member*—Kenneth E. Propst, Green Lane. *Death*—Herbert A. Arnold, Ardmore (Jeff. Med. Coll. '78), Oct. 27, age 76.

NORTHUMBERLAND: *New Member*—George M. Simmonds, Shamokin State Hospital, Shamokin.

PHILADELPHIA: *New Members*—Marion W. Benjamin, 1838 W. Venango St., Raul R. Betancourt, 1900 Spruce St., Martin P. Crane, 2412 N. Broad St., Bernard Hark, 3453 Ryan Ave., John G. Manley, 1411 S. 29th St., Desiderio Roman, 250 S. 17th St., John H. Taefner, 7222 Lincoln Drive, Louis Tickner, 5016 Walnut St., Eugene M. Landis, Maloney Bldg., 36th and Spruce Sts., Robert Megowan, 1211 Foulkrod St., Philadelphia; Richard K. Loewen, 106 N. Reading Ave., Boyertown. *Deaths*—Charles A. O'Reilly, Devon (Univ. Pa. '00), Nov. 1, age 55; John Speese, Philadelphia (Univ. Pa. '02), Oct. 15, age 53.

SCHUYLKILL: *Removal*—Harold G. O'Donnell from Ashland to Girardville.

VENANGO: *Reinstated Member*—Henry B. Gaynor, Polk.

WASHINGTON: *Death*—Charles B. Wood, Monongahela (Univ. Pa. '76), recently, age 84.

WAYNE-PIKE: *Reinstated Member*—Alfred H. Catterall, Hawley.

YORK: *New Member*—Kenneth L. Benfer, York Hospital, York.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Oct. 16. Figures in first column indicate county society numbers; second column, State Society numbers.

1933

Oct. 16	Luzerne	302	7629	\$7.50
	Wayne-Pike	25	7630	7.50
	Lancaster	166-168	7631-7633	18.75
Nov. 1	Bradford	40	7634	7.50
	Erie	158	7635	7.50
2	Allegheny	10-23	1-14	105.00
	Allegheny	1272-1273	7636-7637	15.00
8	Dauphin	1-4	15-18	30.00
	Northumberland	1-2	19-20	15.00
	Montgomery	178	7638	7.50
	York	1	21	7.50
	Jefferson	46	7639	7.50
11	Cambria	146-172	7640-7666	202.50
	Delaware	143	7667	7.50
	Luzerne	1-5	22-26	37.50
	Beaver	86	7668	7.50
	Philadelphia	1943-1957	7669-7683	108.75
13	Lycoming	1-2	27-28	15.00
	Mercer	1	29	7.50
	Mercer	74	7684	7.50
15	McKean	1-2	30-31	15.00
16	Delaware	1-3	32-34	22.50
21	Delaware	144	7685	7.50
	Venango	52	7686	7.50
23	Franklin	1-2	35-36	15.00

County Society Reports

ALLEGHENY

Oct. 17, 1933

The meeting was held at the Hotel Schenley, Pittsburgh, President George W. Grier in the chair. Thomas B. Carroll, chairman, Public Relations Committee, discussed the arrangement whereby physicians of the City of Pittsburgh are paid by the City after approval by a committee of the Society the sum of \$25 for maternity cases in those who are receiving relief from the Welfare Fund. Howard G. Schleiter, of the Auxiliary Committee on Dispensary Practice, reported that the Committee had met with the hospital superintendents of the city, and received assurance of coöperation in correcting those dispensary practices under criticism at various times by the medical profession.

Walter F. Donaldson, in discussing new provisions arising out of the new Workmen's Compensation Act, stated that if organized medicine is to retain its high position, the County Societies must assume responsibility for the quality of the service rendered and the fairness of charges.

District Councilor Robert L. Anderson stressed the necessity of watchfulness by organized medicine in regard to the Legislature for encroachment by the various cults, and reviewed the work of the Committee

on Public Health Legislation in the various sessions of the Legislature since 1925, and particularly noted some harmful legislation which had been blocked.

Maud L. Menten, H. H. Finlay, and C. G. King, Ph.D., presented a paper on "Susceptibility to and Immunization Against Scarlet Fever," who said in part: During a series of Dick skin tests made at the Children's Hospital, Pittsburgh, conjunction with William W. Briant, Jr., they were impressed with the high percentage of positive reactions persistently obtained in nurses and doctors. In spite of continued exposure to scarlet fever, none of these individuals contracted the disease. They questioned the reliability of the test as an absolute index of susceptibility to scarlet fever. In many of such positive individuals, control tests made with toxin boiled 1½ hours likewise remained positive. With a view to studying the influence of age, environmental, and other conditions on the Dick reaction about 1000 susceptibility and 150 immunization tests were made.

A group of 779 individuals from the Children's Hospital, the Industrial Home for Crippled Children, and St. Paul's Orphanage were given skin tests with the commercial Dick toxin and a specific toxin chemically prepared by the authors from a sterile filtrate in which streptococcus scarlatinae had been grown. Below one year of age, 9 per cent were positive. Above that age the percentage varied between 50 and 75 per cent.

At the Industrial Home 35 per cent of the 75 individuals tested were positive. At St. Paul's Orphanage, 160 of the 263 tested, or 61 per cent, were positive. The difference between these 2 figures is probably because the inmates of the latter institution are recruited from the country, in which exposure to streptococcal infections is considerably less than in the group in the Industrial Home, whose members are city bred. In St. Paul's, 57 of the 112 children, or 51 per cent, receiving 5 doses of immunizing toxin of progressively increasing concentration remained positive after the fifth dose.

Supplementary tests made on these 57 positive individuals with a view to distinguishing between the pseudo and true susceptibility reactions, lead the authors to believe that all these had acquired immunity to the streptococcus scarlatinae. They agree with the conclusions reached by several recent investigators that negative Dick reactions indicate immunity against scarlet fever but positive reactions are not necessarily an index of susceptibility.

In discussion, Henry J. Benz said there has been a pandemic of scarlet fever east of the Mississippi River for the past year and a half. The types have been mild, and many have been missed; some are in question. It is best to take the path of safety in diagnosis in these mild cases, and diagnose scarlet fever. The spread of the disease is largely caused by the mild missed cases. As to the age in relation to immunization, the younger the better. The natural immunity at birth is lost at the end of the first year. Children from the congested areas furnish most of the positives. Physicians should immunize the positives. Testing should be done by one with large experience. Joseph S. Baird, in charge of the Municipal Hospital, discussed the clinical use of the scarlet fever antitoxin. There are septic or toxic types seen occasionally. One cannot tell which of the mild cases may become worse. At the Municipal Hospital there have been treated 1174 cases of scarlet fever. Antitoxin was used in about 25 per cent of these cases. It comes in a syringe package of 6000 units, this being the usual dosage. In the severe or late cases, 2, 3, or 4 syringes may be used. In the mild cases, or

in the very young, 3000 units may be used. The indications for the use of antitoxin are: Class I.—Severe or moderately severe cases seen before the eruption has disappeared, or in the first 2 or 3 days. Class II.—All cases under age 4. Class III.—Those, regardless of age, who have a chronic condition which would be made worse by scarlet fever, as diabetes, otitis media, compound fractures, and the puerperal state. The results of antitoxin treatment: There is a decreasing of toxicity; there is a lowering of pulse rate and temperature; there is a rapid disappearance of the eruption, within 24 hours; complications are reduced; and, there is a reduction in mortality.

An illustrative clinical case: A boy who had been ill for 36 hours, temperature 105%° F. on admission, pulse over 190, semicomatose and delirious, and extremely toxic, was admitted to the hospital at 8 p. m. He was given 18,000 units of antitoxin intravenously. The next day the patient was rational, the temperature normal, and he made an uneventful recovery.

Routinely the antitoxin is used intramuscularly. It is given intravenously in toxic and severe cases. The earlier it is used, the better the results. The mortality rate appears to be dropping. There have been about 2900 cases in the past 5 years. Last year the mortality was 0.88 per cent; 1931, 0.77 per cent; 1930, 1.5 per cent; 1929, 3 per cent. The average for the past 5 years is 1.2 per cent. Serum reactions are seen in about 50 per cent of the cases after antitoxin, but not more than 10 per cent of these are severe. Dr. Finlay, in closing, said that some positive reactions were seen after infection.

Raymond D. Gillis read a paper on "The Mechanism of Breech Delivery," which was illustrated by means of lantern slides. He considers the reported 10 to 15 per cent mortality of these presentations is too high, and could be reduced by proper treatment.

The 4 causes of stillbirth in breech presentation are: Pressure on the cord by the aftercoming head or chest, and, the cord in these cases should be loosened or pulled down; premature inspiration caused by relative coldness of the part of the fetus already born, which can be prevented by the use of hot moist towels applied to the fetus; premature separation of the placenta; and, cerebral injury resulting from too rapid delivery.

The outcome of the breech presentation depends on proper dilatation of the cervix and soft parts; and interference with the normal flexion of the fetus by traction from below.

Dilatation of the cervix is accomplished best by preservation of the membranes; should the membranes be ruptured, then dilatation is done by the breech, and a frank breech is best. One foot down is better than two. Potter does not do a version until the cervix is dilated, which fact is often not noted. It may be necessary to convert a frank breech and bring down a foot, as in an elderly primipara, to act as a tractor if necessary. The foot is brought through the cervix and left there. No traction is made. Maintenance of flexion is very important to preserve. Early traction must of necessity create resistance, and adds to the injury to the child. Traction may be made when the buttocks are born, with pressure on the fundus at the same time. The pressure on the fundus prevents extension of the fetus. Rotate the breech so that the back comes to the front. Deliver the arms when the scapulæ appears. To deliver the aftercoming head, the head is flexed, finger in the mouth, the occiput is pushed up, flexing the head. Much damage may be done by traction. If traction is necessary, it is best to use forceps on the aftercoming head, even if it is not quite ideal.

In discussion, Joseph H. Carroll said there is a possibility of the prevention of breech presentation by means of external version done at the thirty-second week, at the office or under gas anesthesia. He warned against the routine use of forceps on the aftercoming head.

Nov. 15

A public meeting was held, Nov. 15, in the ballroom of the Hotel Schenley, Pittsburgh, with an attendance of more than 900. After music, the meeting was opened by President George W. Grier, who said: "The meeting this evening is being held in observance of Pennsylvania Health Day. For several years the City of Philadelphia has set aside a day each year to be celebrated as Philadelphia Health Day. Last year Dr. James M. Anders suggested to Governor Pinchot that it would be a good idea to extend this plan to cover the entire State. The Governor thought well of the idea and after conferring with Secretary of Health Appel, referred the matter to The Medical Society of the State of Pennsylvania for consideration and action. The State Society represents an amalgamation of the various county medical societies of the entire State. On their recommendation, each county medical society has undertaken to carry out the plan by setting aside one day each year on which the medical profession will endeavor to meet the public and discuss with them various matters of public health.

"The first meeting of the sort in this community was held in the William Penn Hotel, October, 1932. The meeting was so successful, the attendance so large and the comment from friends so favorable that we have been encouraged to arrange a second meeting this year.

"The meeting tonight is being held under the auspices of the Allegheny County Medical Society, which is composed of the regular practicing physicians of this community. The program has been arranged by the Committee on Public Relations of that Society under the able direction of Thomas B. Carroll, chairman. Our aim is to present to you certain matters of general interest regarding public health and in such a way that they will be understood by all. That is to say, our speakers will omit technical medical terms and confine their remarks to the language of everyday conversation. We hope the meeting will be both entertaining and instructive. The first speaker was to have been His Honor Mayor Herron, but because of illness he is unable to be present. Mayor Herron has ably supported all health measures and suggestions made to him by the Society, and his coöperation is appreciated.

"Probably no matter of public health commands such instant and ready attention as that of the epidemic diseases. Under ordinary conditions, the average individual has his own routine and habits which he relies upon to maintain health. In the face of the epidemic, if he sees friends and acquaintances stricken on all sides, without apparent rhyme or reason, the futility of any effort of his own to escape contagions is forced upon him. It is little wonder that one of the unforgettable items of history is a record of the great epidemics. The recent epidemic of sleeping sickness in St. Louis was not of this magnitude, but it was of sufficient severity to arouse interest in the entire country. Though there is no reason in the world for thinking that such an epidemic will visit this community, an authentic description of some aspects of the disease and a recital of various experiences noted in St. Louis should be of general interest to our citizens. Among St. Louis physicians who had an opportunity to observe victims of this epidemic, none is more fitted by his experience

than the gentleman who will speak to you this evening, Howard A. McCordock, pathologist to Washington University, St. Louis."

Howard A. McCordock: The recent epidemic in St. Louis was the largest single epidemic that has occurred in this country or Europe outside of the 1924 epidemic of Japan, but this was in a large area populated by millions of persons; there were 7000 persons affected, with a mortality of 50 per cent. The St. Louis metropolitan area has a population of about 1,000,000. From the middle of July to the present time there have been 1200 cases with 225 deaths. The city and suburban cases were about equal in number; the rate was higher in the rural district.

The first case was that of a negro who was admitted to the hospital on July 23, with headache, fever, and drowsiness, passing into a comatose condition. The man had pulmonary tuberculosis and a diagnosis of tuberculous meningitis was made. The second case resembled the first. The patient was a woman, whose husband had tuberculosis, and again a diagnosis of tuberculous meningitis was made. The third case had the same symptoms, but again to diagnose tuberculous meningitis was too much. Tuberculous meningitis is not rare, but 3 cases in succession would be rare. On July 30, the negro died. At necropsy the brain showed no tuberculous meningitis, but showed encephalitis. The disease had spread by Aug. 8 so that 16 patients were in the isolation hospital. There were no cases in the city proper up to this time. The Health Council had a meeting on Aug. 14 and representatives of the U. S. Public Health Service arrived. It was recommended that all patients be kept in hospital until 3 weeks after the onset of symptoms.

There are 2 types of encephalitis: The postinfectious type, that which is seen occasionally after measles, vaccinia, and influenza; and encephalitis lethargica, which has been in the country since 1918, and was first described by Economo of Vienna, and is known by his name.

The encephalitis of Economo is seen in winter or early spring. The young are attacked. There is a gradual development of symptoms; drowsiness, rise of temperature, lethargy, and paralysis of the muscles of the eyes, and a generalized muscular weakness. The mortality runs from 10 to 50 per cent. There is more or less complete recovery in a few weeks or a few months. Some patients have a residue of nervous symptoms.

The encephalitis seen in St. Louis occurred in a hot, dry summer, which weather records showed to be the driest since 1837. The cases were in the upper age group, more than half of those affected being over age 50. The onset was abrupt, with headache, rise of temperature, and gastro-intestinal symptoms. These lasted 2 or 3 days. Following these there was increasing stiffness of the neck, the patients gradually became drowsy, and went into stupor. They could be aroused, but were disoriented. Some deepened into a fatal coma. The recovery was usually abrupt, the temperature dropped to normal. The mind was blank for events of the past few days. The spinal fluid showed increased pressure, and the cell count showed 50 or more cells. The white blood cell count was raised and indicated some infection. There were officially 1200 cases. The St. Louis type differs from the Economo type in that paralysis of the muscles of the eye was seen only in one case, a child.

The epidemic in Japan in 1924 was called by them type B, to distinguish it from the Economo type, type A.

There was an epidemic in Australia called the Australian "X" disease, as the cause was unknown.

At necropsy the changes in the brain were the same as in the ordinary type. In fatal cases there were: A. Naked eye changes: Blood vessel congestion; and, small hemorrhages in the brain.

B. Microscopic changes: There were inflammatory cells encircling the blood vessels the well-known perivascular "cuffing"; a degeneration and complete destruction of the nerve cells; and in the kidneys occlusion bodies, indicative of some virus.

Factors in the spread of the epidemic: The rainfall was the lowest since 1837, as far back as the weather records go. The drainage and sewerage in places were favorable for the development of mosquitoes. There were many suggestions sent in, many sensible and some foolish. Those suggestions which had any reasonableness were followed for what they might be worth. The water supply was ruled out as a source of infection. Separate water supplies for both rural and urban areas would do that; mosquitoes were hard to rule out; milk was ruled out, and house investigation showed no common supply of food, so that was ruled out.

To determine the rôle of mosquitoes, monkeys were bitten by infected mosquitoes, and the result was negative. With 3 men of the U. S. Public Health Service the result was the same. On prisoners in Missouri and Virginia the results were negative. There is no positive evidence that the mosquito transmits the disease.

There are 3 different strains of the virus. In monkeys, 30 per cent develop the disease. The disease has been transmitted from monkeys to a second generation of white mice; the virus has been established in monkeys and mice, and this permits extensive study of the disease. The changes in the brains of mice and monkeys are similar to those in human beings.

Logan Clendenning, of Kansas City, who has been in practice in Kansas City for many years, and has been clinical professor of medicine in the University of Kansas since 1924, spoke on "The Heritage of Medicine." He had no stereotyped defense of the medical profession; it needs no stereotyped defense; it needs no defense at all. State medicine need not be feared at all. If it does come, it will come like prohibition and pass out again. You cannot have the same pills for everybody, and persons will not have it. Comparing the present depression with the one he characterized as the longest one of all, which lasted for 800 years, the Middle Ages, he pointed out that what was salvaged out of that civilization was preventive medicine. He predicted that there was no limit to what biology and medicine may accomplish in the future, remembering that modern medicine is only about 90 years old.

Music concluded the program.

GEORGE R. HARRIS, *Reporter.*

BEAVER—SEPTEMBER-OCTOBER-NOVEMBER

The first monthly meeting of the 1933-34 season was held, according to annual custom, at the Beaver County Tuberculosis Sanatorium, Sept. 14, John D. Stevenson presiding. There was a total attendance of about 125 consisting of doctors, their wives and guests. William D. Stroud, professor of cardiology at the Graduate School of the University of Pennsylvania, gave a lecture illustrated with slides and motion pictures on "What We Should Know About Heart Disease." He emphasized the newer thought on the prevention of

heart disease and the importance of the problem from a public health point of view. The motion pictures illustrated the heart action. After the lecture, the entire group had dinner at the sanatorium.

The October meeting of the Beaver County Medical Society was held at the Rochester General Hospital, Oct. 12. Alfred E. Chadwick gave an illustrated talk on "Laboratory Aids in Medicine." Dr. Chadwick limited the subject particularly to the findings in the urine and blood which are of particular significance to the physician.

The Nov. 9 meeting of the County Medical Society was held at the Rochester General Hospital. President Stevenson appointed the following nominating committee: Fred B. Wilson, Leslie L. Hunter, and Milton L. McCandless, who are to report at the next meeting. A Medical Advisory Committee to assist the Emergency Relief Committee was also appointed consisting of Edward H. Douds, Horace D. Washburn, and Louis H. Landay. Masha F. Pettler discussed "Lichen Planus." Some of the cases are very rebellious to almost any form of treatment and are subject to recurrence. Dr. Pettler demonstrated a case now under treatment in which he was getting a good result.

LOUIS H. LANDAY, *Reporter.*

BERKS—OCTOBER

The regular meeting was held at 4:15 p.m., Oct. 10, at Medical Hall, Reading, Pa., with President Erwin D. Funk presiding. There were present about 75 physicians, and 26 dentists, members of the Reading Dental Society, who were guests at this meeting. Arthur C. Morgan, professor emeritus of clinical medicine, Temple University Medical School, Philadelphia, spoke on the topic of "Medical Economics."

Dr. Morgan said in part: At the Milwaukee Convention of the A. M. A., held June 12 to 16, 1933, many things happened which we might review today with respect to the authority of the medical profession of this country. You will note in the report, briefly outlined in the July, 1933, issue of our State JOURNAL some of the resolutions adopted on various questions.

The matter of birth control was again presented, but as this subject has had a good deal of discussion in the past 2 years, nothing further was done except to hold it in abeyance for further study and report at the 1934 meeting.

In regard to abortions, the medical profession is fortified by the code of ethics of the A. M. A., which lays down the law, and by the oath of Hippocrates which guides our actions in such instances. That there is safety in numbers is easily understood by us, for no one man should assume the responsibility of making a lone decision as to performing an abortion. No matter what the reason or emergency may be, he should take counsel with one of his elder brethren of the profession, who should be of good reputation. With the advice of 2 or more, there can be no hesitancy in regard to the legality or ethics of the procedure. The law provides that if and when a physician is convicted of performing an illegal operation, and the official records being presented to the State Board bear that out, the procedure is to revoke his license to practice medicine.

Cases involving the habitual use of narcotic drugs are also brought before the Board, and on conviction of such improper use, the procedure is to suspend the license of such physicians. If a license is revoked, it requires legislative action for its restoration; but if only suspended, the Board has authority to lift such suspension, provided the physician has agreed to and

taken a specially prescribed treatment in a hospital equipped for such cases, and continues the treatment to effect a cure. If at the end of 7 days the patient shows no recurring symptoms, the physicians treating him certify under the seal of the State that the physician in question is free from effects of narcotic addiction. In such cases, it is the usual policy of the State Narcotic Board to keep a careful check on him for a while.

In our State we are governed by the Pennsylvania Narcotic Act, as well as by the federal Harrison Narcotic Act, although the latter is not as rigid as our State law. All physicians, dentists, and veterinarians are required to keep a record of all narcotics dispensed, with names, addresses, dates, etc. This record must be kept intact for at least 2 years for inspection if necessary by the proper authorities; no record need be kept of emergency cases so treated.

There should be established in the A. M. A., a Section on Stomatology, so as to give definite recognition to the dentists who are now joining with us as associate members. Dr. Morgan recommended the election of dentists as associate members, for there is a liaison which should be established between both professions, particularly in cases of focal infections. There is no reason why the dentists should not be our co-equals in helping solve such problems.

At Milwaukee the matter of race prejudice was discussed and a resolution adopted. The matter of contract practice was, by resolution, referred to the Committees on Public Relations and on Economics in order to develop more details on the subject. There was no resolution in regard to the Eighteenth Amendment. Two years ago the Bureau of Medical Economics was established in Chicago, supervised by Dr. R. G. Leland, whose office is located at No. 535 North Dearborn Street, A. M. A. headquarters.

Dr. Morgan has been much interested in the matter of the A. M. A. Biographical Index, and as chairman of the Health Committee of the State Society in 1926, he learned about the value of this Index. They have the complete record from the time a student enrolls as a medical freshman until the end of his career.

At the coming State election, there are amendments to be ratified or rejected, and his suggestion is that both committees handling such matters meet together and read and summarize all the proposed amendments. In one of them is contained an item of a proposed loan of \$25,000,000 dollars, of which \$20,000,000 will be used for the purpose of caring for the indigent of the State, while the balance will be spent for the relief of hospitals for work done, etc. The laborer is worthy of his hire, and the chances are that some of this money may return to the doctors.

In discussion, Dr. Hartman asked if a physician writes a prescription containing narcotic drugs, is the physician or the druggist required to keep the record? Dr. Morgan answered that if the doctor writes the prescription, he is required to have his registry number thereon, written in ink. Then his responsibility ceases. Gilbert I. Winston asked if a record must be kept of hypodermics given. Dr. Morgan replied, "No, that is considered an 'emergency.' However, too many emergency injections may be questioned." Dr. Scholl, Sr., asked concerning the rule in using a 10 per cent solution of cocaine as a prophylaxis. Dr. Morgan replied if you order that quantity from the druggist, he will doubtless supply it because he considers you a reputable practitioner. Acquiring the crystals and preparing the solution for use day by day is quite all right,

but if the use of cocaine is thought to be disproportionate, the inspector is likely to request an inspection of your books.

David S. Grim asked if this \$25,000,000 loan goes through, will only those institutions now receiving State aid, benefit. Dr. Morgan answered: "I cannot answer that question. All I know is that the money will be spent in many directions, but all of it is supposed to go for relief. The \$5,000,000 goes especially to those institutions taking care of the indigent."

Ira G. Shoemaker said he understood that the government has issued Bulletin No. 7, which contains a reference to federal aid in payments for physicians, and suggested that our Secretary procure a copy of this bulletin and publish it. Erwin D. Funk reminded the members of the proposed Public Health Day, observed on Thursday, Oct. 26, when Dr. Meyers spoke in our City Hall Auditorium on some aspects of tuberculosis.

PEARL E. HACKMAN, *Reporter*.

BLAIR—OCTOBER

The Blair County Medical Society met in the Altoona Hospital, Oct. 24, at 3:30 p.m.; John R. T. Snyder presiding.

William H. Howell read a paper on "Cancer of the Breast" from the point of view of the general surgeon. The importance of early diagnosis was stressed. The speaker claimed that a marked increase in the percentage of cures has been effected by thorough preoperative irradiation. He noted the following contraindications to operation in cancer of the breast: Palpable nodes in the skin over 3 inches from the growth; nodes above the clavicle, in the supraclavicular or infraclavicular glands; metastases to the liver, shoulder, girdle, or opposite breast. He emphasized: Give 8 to 10 erythema doses of roentgen ray before operation; wait 6 weeks after the last irradiation before operating; and do a thorough removal.

Claude E. Snyder discussed "Cancer of the Uterus." All patients should have a follow up examination after each delivery and the cervix treated if necessary. All patients should have frequent examinations of the cervix after the age of 35. All vaginal discharges should be investigated. Suspicious cervixes should have the Schiller test done; confirmed by biopsy and diagnostic curettage, with microscopic examination of the removed tissue. The care of erosions, cervical lacerations and infections of the cervix will in many cases prevent cancer later in life. The early diagnosis of cancer of the cervix and body of the uterus will be more frequently made if proper means are taken for investigation. The education of the public about cancer should be continuous and more intensive. If the physician is unable to treat properly the erosions and lacerations or unable to carry out the necessary procedures for an early diagnosis the patient should be referred to one who is equipped to carry out this procedure. Cancer should be considered as an emergency and immediate treatment instituted. The treatment should be in the hands of one who is thoroughly experienced.

John C. Noss discussed "Cancer of the Rectum." He stated that 3 per cent of all cancers occur in the rectum, and that 80 per cent of all those occurring in the intestinal tract are found in the rectum. The importance of educating the public on the subject was emphasized, acquainting them with the early symptoms in this region, and urging the importance of early and repeated examinations. The importance of careful and complete case histories, proper rectal examinations together with

biopsy, microscopic study, and roentgen ray with barium enemata was stressed. JOHN D. HOGUE, *Reporter*.

BUCKS—NOVEMBER

The eighty-fifth annual meeting was held at the Fountain House, Doylestown, Nov. 8 at 4:30 p.m. First Vice President Harvey P. Feigley in the chair. Seventy-five members and guests were present.

President James Collins, having arrived, took charge of the meeting. Clairmont A. Kressley, chairman of the Toxoid Committee, reported that during the past 2 months approximately 2754 children in the county had been inoculated. The cost of advertising the campaign in the county papers was \$27.74. John B. Carrell, chairman of the Program Committee for the Anniversary Meeting, reported that his committee had arranged for the dinner and celebration to be held on this the eighty-fifth anniversary and that it was to be a Testimonial Dinner to the secretary, Anthony F. Myers, who has served for 38 years.

The following officers were elected: President, Harvey P. Feigley; first vice president, H. Doyle Webb; second vice president, Linford B. Roberts; secretary-treasurer, Anthony F. Myers; assistant secretary-treasurer, Mary E. Lehman; censors: William C. LeCompte, John A. Weierbach, and William S. Erdman; reporter, Mary E. Lehman; and editor, Otto H. Strouse.

It was moved, seconded, and passed that the officers be elected by acclamation.

President Collins, in his retiring address, stressed the importance of being a member of the county society; the need in the county of a hospital for acute infectious diseases and for a sanatorium for tuberculous patients; the favorable location of Bucks County with its ease of access to Philadelphia and New York. In closing, he handed over the gavel to the new president, Harvey P. Feigley.

Mary E. Lehman introduced Faith S. Fetterman, clinical professor of gynecology and urology at the Woman's Medical College of Pennsylvania, who read a paper on "Referred Ureteral Pain." The paper was illustrated with lantern slides. It represented the results of the study of some 1500 cases.

The celebration that followed the scientific program was a testimonial dinner to Secretary Anthony F. Myers on the occasion of the eighty-fifth anniversary of the founding of the Bucks County Medical Society and the second annual celebration of Pennsylvania State Health Day. John B. Carrell was toastmaster. The speakers were: Miss Laura C. Haines, president, Bucks County Public Health Association; Mary E. Lehman, "History of Bucks County Medical Society"; Moses Behrend, president-elect, State Medical Society; Wilmer Krusen, Philadelphia; Mr. George Hotchkiss, editor, *Doylestown Intelligencer*; Bruce McCreary, assistant State Secretary of Health, "State Health Day"; Judge Hiram Keller; Mrs. Frank Lehman, president, Woman's Auxiliary; and Secretary Anthony F. Myers.

The society was organized in 1848, and its first president was Phineas Jenks, of Newtown, part of whose cane was made into a gavel which is always used by the society. Dr. Behrend stressed the changes that should be made in the workmen's compensation laws, in which Judge Keller concurred. Dr. Krusen, who was born in Bucks County, paid a tribute to some of the deceased members.

Dr. McCreary spoke particularly of the opportunity offered by State Health Day for educating the public concerning the need for better health observance.

Health Day, started a year ago, has made the people more health conscious, and has done a great deal to offset the tactless report on medical care. It has impressed the importance of early diagnosis. It has helped direct more attention to infant mortality, and generally aided in educating the public concerning health measures. This is especially necessary because of the inroads on health made by undernourishment during the depression. He announced that the state will soon resume the distribution of free biologic products.

Mrs. Frank Lehman, speaking for the woman's auxiliary, explained that the auxiliary desires to be more helpful to the parent organization. One way she indicated is by using influence to have authoritative speakers on health subjects before women's clubs and other organizations.

Responding to the tribute paid him, Dr. Myers, the last of the physicians living when he joined the society 45 years ago, told of the pleasure he has had in association and working with the members of the society, and their kindness and courtesy toward him.

CLINTON—OCTOBER

The stated meeting was held at the Lock Haven Hospital, Oct. 27, at 8:00 p.m. Wellington David Griesemer, of Reading, discussed "Some Points on the Diagnosis and Treatment of Fractures." Roentgenograms were shown by means of lantern slides, and the proper method of applying emergency splints was shown by motion pictures.

DAVID W. THOMAS, *Secretary*.

DELAWARE—SEPTEMBER-OCTOBER

The monthly meeting was held at 8:30 p.m., Oct. 12, at Chester Hospital, Chester, President Harry C. Donahoo presiding.

A report of the delegates to the State Society's meeting in Philadelphia was read by C. Irvin Stiteler. District Councilor Edgar S. Buyers spoke concerning the use of Federal money for medical relief. Ellen E. Brown was congratulated by the president, on behalf of the society, for having completed 50 years in the practice of medicine.

Charles C. Wolferth, chief cardiologist at the University of Pennsylvania, discussed, "Recent Advances in the Treatment of Heart Disease." He said in part: The etiology of one-third of the cases of heart disease can be traced to rheumatic fever. In rheumatic fever there may or may not be joint manifestations; the cardiac manifestations are always serious, wrecking many lives each year. Carditis caused by rheumatic fever is liable to be a long drawn out affair, some individuals going on for years with a low grade infection in the heart. There is no evidence to show that salicylates favorably modify rheumatic carditis, but they do modify the joint manifestations of the disease. The use of sera and vaccines intramuscularly or intravenously has not shown any marked benefit in the cure or prophylaxis of rheumatic carditis. Rheumatic fever is far less common in semitropical climates than in the northern parts of this country. With this idea in mind convalescent homes for rheumatic children have been established in the south with encouraging results. Statistical evidence does not show much benefit from the removal of tonsils as a prophylactic against recurrences of rheumatic fever. It is possible that not all the lymphoid tissue is removed. Long periods of rest and attempts to eliminate foci of infection are always advisable in the treatment of rheumatic heart conditions.

Available evidence shows that adequate antisiphilitic

treatment cuts down the incidence of syphilitic cardiovascular disease. Those individuals who have developed cardiovascular syphilis should be very carefully treated by specifics, mercury, bismuth, and iodides. No neoarsphenamine should be given for at least 6 months, then very cautiously and in small doses. Many cases of arrested cardiovascular syphilis follow this line of treatment.

Hypertension is the most important subject in cardiovascular disease. Most clinicians believe that hypertension comes first, with kidney insufficiency later. The only drugs of much value in the treatment of hypertension are the sedatives. If associated with obesity, the taking off of weight usually brings down the pressure. Patients with little kidney involvement should take their usual amount of water, not much salt, and the necessary amount of protein per kilo of body weight. Kidney involvement must be treated from that angle also.

The pain of a typical attack of angina pectoris is coronary in origin, there is some disturbance in the function of the coronary arteries. No drug is so effective as nitroglycerine under the tongue for quick relief from pain. Theobromine and theophylline have a definite value in the treatment of this condition. The use of pancreatic extracts, as developed at this time, have no real value. The use of iodides is quite often rewarded by good results. Physical therapy treatment is the most important of all; the proper amount of rest, diet, and regulated activity. Surgical treatment of angina, such as injection of paravertebral sympathetics with alcohol, and cervical sympathectomy, have met with varying success. Very gratifying results have followed total surgical abolition of the thyroid gland. The basal metabolism is lowered, not so much blood is needed by the body, thus the heart does not have so much work to do. Abolition of the thyroid gland has also been used in cases of severe cardiac decompensation, with gratifying results.

In treating cases of coronary occlusion it is necessary for the patient to have from 4 to 6 weeks of absolute rest. Firm fibrous tissue should be established in occluded area before permitting any exertion. Some of these cases can be carried over the critical period by the use of the oxygen tent.

In cardiac decompensation emphasis should be placed on diuresis. The mercurial diuretics aid materially in the effectiveness of the treatment of congestive heart failure. Always seek outside the heart for causes of congestion, hypothyroidism, anemia, etc. There has been very little change in the use of digitalis in these cases. Most of the leading cardiologists recommend the use of powdered digitalis in preference to other preparations of the drug.

Dr. Wolferth, in closing the discussion, said he believes that sinus infection is not important in relation to rheumatic fever, but it is important as a site of focal infection. All chronic infections at some time or other affect the heart adversely.

FRANCIS G. MILLER, *Reporter*.

DELAWARE (EASTERN BRANCH)

Sept. 26, 1933

The first meeting of the Eastern Branch of the Delaware County Medical Society was held at the Fitzgerald Mercy Hospital, Lansdowne, Sept. 26, President Walter E. Kepler presiding. Frederic H. Leavitt, associate professor of nervous diseases, Graduate Hospital, Philadelphia, spoke on the "Types and Differential Diagnosis of Meningitis." W. Egbert Robertson, Philadel-

phila, discussed "Encephalitis." Carl J. Bucher, assistant director of the laboratory of Jefferson Hospital, spoke on "Laboratory Findings of Both Diseases." Charles W. Burr opened the discussion.

Oct. 24

The Society met at the Fitzgerald-Mercy Hospital, Oct. 24, at 9 p.m. Percy S. Pelouze, Philadelphia, spoke on the "Management of Focal Infective Prostatitis." He divided prostatitis into 2 classes; that caused by gonorrhea; and, the chronic infected type. Gonorrheal prostatitis will clear up if let alone though mild measures were advised in treatment. Chronic infective prostatitis requires the removal of foci of infection, most commonly found in the teeth and tonsils. In tooth infections the teeth should be roentgen rayed every 3 months to discover new foci, otherwise a repetition of the syndrome will occur.

Treatment of mild conditions should be carried out by massage twice weekly. He warned against treatment by severe massage, of cases showing keratitis, iritis, myocarditis, and severe joint involvement; even stating that the mere pressure of the finger against the prostate would cause a severe flare up of symptoms which sometimes cause permanent disability. This was emphasized as a good diagnostic procedure to determine if the prostate was causing the trouble elsewhere. Massive reactions cause harm, mild reactions seem to accelerate improvement.

Vaccines are either not understood or they are given in too large doses. Great care should be observed in giving vaccines. Diathermy, dilatation, and instillation of chemicals were considered of no value in treatment. Massage is the best form of treatment in these cases, observing the rules laid down previously. In massaging the prostate, begin with the right lobe, massaging from above downwards; follow with treatment of left lobe, as this portion is more sensitive. Leave the middle lobe until last as this is the most sensitive. Many cases show pus at first, some show pus on later treatments, which is not caused by massage of prostate, but by deep foci of infection draining after treatment.

He also spoke on the management of specific and non-specific urethritis. Nonspecific urethritis does not occur after age 40 or 45. In gonorrheal urethritis he advised the discontinuance of chemicals into the urethra as early as possible, and warned against trauma by instrumentation, as this causes a chronic condition which might never clear up. The indiscriminate use of vaccines also caused the gonococci to remain in the discharges for years.

Cloudy urine containing shreds was the result of treatment instituted too early and given too roughly.

John A. McGlinn, Philadelphia, compared endocervicitis in the female with chronic prostatitis in the male and spoke on the treatment of endocervicitis, stating that most local treatments are useless; as complete cures oftentimes are accomplished only by destruction of the glands of the cervix or by amputation.

After adjournment the assembly was invited to the home of Howard S. Busler for refreshments prepared by the Woman's Auxiliary.

AUGUSTUS H. CLAGETT, *Reporter*.

ERIE—NOVEMBER

The regular meeting was held at Hamot Hospital, Nov. 7, Maxwell Lick presiding.

Michael Skovron, A. H. Williams and Kunj Kichlu, of Erie, and J. K. Tannehill, of Girard, were admitted to membership.

Orel N. Chaffee gave a short talk on the subject of

malpractice in which he emphasized the necessity of adequate consultation in cases involving the use of narcotics.

Frederick B. Utley, of Pittsburgh, who discussed the "Surgical and Medical Aspects of Focal Infection." He outlined the etiologic factors in the production of disease in which focal infection is the cause. In spite of the bactericidal power of the blood stream, dissemination of infected material in the form of emboli takes place in the blood and lymph channels. Such factors as lowered resistance on the part of the patient to the elements, certain errors of diet and changes in environment contribute to the initiation of disease or to the exacerbation of existing disease. In addition, the virulence of the offending organism countered against the natural or acquired immunity of the host is probably the final consideration which determines the severity of the disease.

When patients present themselves, a thorough history, a searching physical examination, and a free use of clinical laboratory facilities should be the rule. Every attempt should be made to determine the etiologic factor, and when this is accomplished, the patient's condition permitting, the early eradication of foci should be resorted to.

A series of cases were reviewed. Dr. Utley strongly emphasized that in the removal of teeth, not only should roentgen-ray examinations be made first but that vitality tests should be done as well. He deprecated the widespread removal of many infected teeth at the same sitting, pointing out that there is less danger of spreading infected processes if but 2 or 3 teeth are removed at a time.

BENJAMIN GOLDMAN, *Reporter*.

HUNTINGDON—NOVEMBER

Pennsylvania Health Day was observed by the Huntingdon County Medical Society, Nov. 9, during which 2 public meetings were held.

The first meeting was held at the courthouse in Huntingdon in the afternoon, Howard C. Frontz, chairman of the Public Relations Committee, presided. William A. Doebele, director of the chest clinic in Huntingdon, spoke about the work done among the children in this clinic. He emphasized the need of supporting the sale of the Christmas Seals in order that this work could be carried on effectively. J. Roy St. Clair, county medical director, reviewed some of the aspects of his work, especially in the outlying rural sections. He related how the spread of epidemics is often not checked early enough because parents do not seek a diagnosis of their children's ailments until the whole school has been infected. Charles R. Reinert, director of the genito-urinary clinic in Huntingdon, gave a report of his work. This clinic has too many patients, and venereal disease must be further prevented by education, rather than by remedy. Only those who are not working are treated in this clinic. The main address was given by Emlyn Jones, of the Bureau of Vital Statistics at Harrisburg. His philosophic interpretation of the statistics, rendered interesting these otherwise dry facts. He related that 10 per cent of all those called to arms in America in the World War were rejected on physical grounds. Of those accepted, 47 per cent had some remedial faults. Prevention of disease has gone far in the past 25 years. During that time the death rate of tuberculosis has dropped from 100 per 100,000 population, to 55; diphtheria from 35 to 4; typhoid fever from 55 to 2. Last year in this State there were 165,000 births, and 110,000 deaths. Sixty-five per cent of the deaths were from the following 5 diseases: Heart, pneumonia, apoplexy, cancer,

and diabetes. In 25 years the infant mortality has fallen from 168 per 1000 births to 60. The average span of life in Napoleon's day was 33 years, during Lincoln's day 40, and today in Pennsylvania it is 58 years. Over the past 40 years there has been no material decrease in the death rate, but the lengthening of the average span of life is due to the saving in child life. Dr. Jones showed that in the past 12 years there has been a decrease of 62,000 births in the State, along with a decrease of 26,000 marriages. During the same span there have been 83,000 divorces. From these statistics he inferred that if America is to survive we must keep the home intact. A child without a home is an orphan. A population without its roots set in the family home can not live on.

A meeting was held at Mt. Union in the evening, presided over by John S. Herkness. Dr. Jones also addressed this meeting, as did several of Mt. Union's civic leaders. At both meetings a motion picture, entitled "Man Against Microbe," was shown through the courtesy of the Metropolitan Life Insurance Company.

WALTER ORTHNER, *Reporter.*

LACKAWANNA

Pennsylvania State Health Day Activities

Councilor Frederick J. Bishop, Chairman Lackawanna County Medical Society's Committee on Public Relations, submits the following report of meetings held.

Moosic. New Auditorium, Nov. 2, at 8 p.m. Speaker: Dr. Frank R. Wheelock, "Tuberculosis." Film: "Tuberculosis and How It May Be Avoided." High School Glee Club. Also, High School Auditorium at Assembly, Nov. 8, at 8:30 a.m. Speaker: Dr. Byron H. Jackson, "Childhood Tuberculosis."

Moscow. High School Auditorium, Nov. 8, at 2:30 p.m. "Communicable Diseases." First Aid Demonstration.

Taylor. High School Auditorium, Nov. 8, 8 p.m. Dr. Carl Brown, "Tuberculosis." Film: "Tuberculosis and How It May Be Avoided."

Olyphant for Mid-Valley. St. Cyril's Auditorium, Nov. 8, at 8 p.m. Dr. Rossiter J. Lloyd, "Communicable Diseases." Mr. D. C. Darrow, Health Officer for County. Dr. Vincent T. Curtin, "Teeth." Musical numbers by St. Cyril's Choir and Methodist Quartet.

Abingtons. Waverly Community House, Nov. 8, at 8 p.m. Dr. Frank G. Bryant, "Communicable Diseases"; Dr. Friend A. Cross, "Eyes"; and Dr. F. W. Nash, "Teeth." First Aid Demonstration by Boy Scouts. Nutrition.

South Scranton. P. O. S. of A. Hall, Nov. 8, at 8 p.m. Drs. William E. Keller and Frank R. Wheelock, "Communicable Diseases," and "Tuberculosis," respectively. Film: "Many Happy Returns."

East Scranton. No. 38 School, Nov. 8, at 8 p.m. Dr. Jonathan M. Wainwright, "Cancer."

North Scranton. Holy Rosary Auditorium, Nov. 8, at 8 p.m. Drs. Frank G. Bryant, J. W. Houck, Walter J. Larkin, "Contagious Diseases," "Teeth." Film: "Diphtheria."

West Scranton. Jackson Street Baptist Church, Nov. 8, 8 p.m. Speakers: Rev. B. L. C. Baer, Dr. Irwin W. Severson, Mrs. A. D. Upton, Dr. W. Rowland Davies. Subjects: "Greetings," "The Importance of Quarantine," "Parents' Reaction to Health of the Family," "What Happens When You Do Without A Doctor." Sketch: Why Call A Physician? Music. Film: "Man Against Microbe."

Dunmore. Child Health Center, Nov. 8, at 2 p.m. Dr. Frank L. Swift, "Tuberculosis."

Carbondale. High School Auditorium, Nov. 8, at

8 p.m. Dr. A. J. Kaufman, "Communicable Diseases." Film: "Diphtheria."

DISTRICT COUNCILOR FREDERICK J. BISHOP, *Reporter.*

One of the most inclusive, best attended, and best received postgraduate seminars in the history of the Society was recently completed by Richard Kern, of Philadelphia, with an afternoon clinic at the Scranton State Hospital. Dr. Kern covered the subject of "Allergy," in 12 hours of lectures and clinics over a period of 4 weeks. Two of the lectures were given before the Society at the regular weekly meeting. The first of these, on Oct. 17, considered primarily the "Diagnosis of Allergic Conditions."

Among the characteristics presenting the symptom-complex of an allergic condition are hay fever, asthma, eczema, urticaria, and migraine. Some obscure forms have no presenting symptom-complex, but there may be a past history of allergy (10-15 per cent of all whites are allergic). Many cases will give a family history of allergic manifestations which can be traced through several generations. In the laboratory, eosinophilia is seen more often on an allergic basis than from any other single cause. Skin testing might offer a clue, but is not absolute; a common cause of failure is neglect in finding all allergic factors. Multiple allergy is the rule. The 4 chief aids to diagnosis are: The history, the physical examination, skin tests, and trial and error methods. Skin testing is of secondary importance; it can be delegated to a good technician. In taking the history, the allergist should demonstrate real ability.

In history taking, one should remember: Infinite detail; length and completeness; to continue history taking as long as the patient is contacted; and the high spots such as (a) age of onset, (b) exact description of symptoms at onset (contacts, colds, etc.); (c) accurate time of symptoms (house dust most often is active at night); (d) relation to diet (meals; certain foods); (e) type of intake, asthmatics have trouble more often after a full meal, than a light one, cold foods often produce attacks; asthmatics should never take ice cream or cold drinks before retiring; (f) keep a food diary, do not fix attention on any one food or expect trouble with every intake. There is a quantitative factor and minimal intake might not provoke the symptoms; (g) inquire into food dislikes, often a protective mechanism in children; (h) any relation to location, as infectious cases carry the cause with them; (i) what occupation? what handled? what dusts? working member of family may carry dusts home to susceptible member of family; (j) what inhalable dusts? pets (past and present), furs, pillows, mattresses, upholstery, wall coverings, and rugs? (beware of grass, straw, or fiber mats or rugs); (k) are there climatic factors? (if worst on rainy days, it is not pollen); most allergies are good weather prophets as their symptoms increase with a falling barometric pressure.

During the physical examination, it is wise to look for constitutional disease which may be coincidental. Allergic conditions may be the causative factor in cardiac disease. Highly diagnostic is the appearance of the nasal mucosa which in allergy is pallid, swollen, and edematous, in contrast to the moist, red, swollen mucosa of infection.

Skin testing measures the sensitivity of the skin; which is not a parallel to sensitivity elsewhere in the body. There may be positive skin tests with no clinical manifestations, and vice versa. The "scratch test" is the most valuable and dependable method. It is a cut, not an abrasion, and never deep enough to draw blood. Tenth normal sodium hydroxide is used

with the test materials. Interpret the test by putting down just what you see, measuring the erythema and wheal. Dry powders are fairly stable, but pastes are useless. Group tests are unreliable because the dilution is too great, but may help in the case of botanically related substances, such as peanuts, peas, and beans. Intracutaneous tests must be used with care. There may be a constitutional reaction with itching, wheezing, asthma and urticaria. It is well to have a tourniquet and adrenalin always ready. The "patch test" is of value but takes 24 to 48 hours. Other methods include the ophthalmic, intranasal and passive transfer. The scratch method is the simplest, safest, and should be used.

Other features of the past month, included a paper on "Blood Pressure," by H. D. Gardner, of Scranton, on Oct. 10. On Oct. 31, John C. A. Gerster, of Cornell University Medical School, held an afternoon clinic at the Moses Taylor Hospital and in the evening addressed the society on "Postoperative Complications of Suppurative Appendicitis and Their Treatment."

A new and quite iconoclastic concept of cardiac morphology in relation to physical signs was brought to the society by Benjamin Robinson, of Philadelphia General Hospital, on Nov. 7, who discussed his conclusions drawn from 15,000 necropsies made during the past 10 years.

FREDERIC B. DAVIES, *Reporter*.

LUZERNE

Nov. 1, 1933

The meeting was held in the Medical Building, Wilkes-Barre, on Nov. 1, Charles L. Shafer presiding. It was very largely attended. Four men were elected to membership: N. C. Mauriello, Wyoming; D. F. Closterman, Forty Fort; H. C. Fischer, Jr., Wilkes-Barre; and J. F. Hoffman, Exeter. Peter P. Mayock is to be recommended to the State President Donald Guthrie for chairman, Committee on Local Arrangements for the annual State meeting which is to be held in Wilkes-Barre next year. It was announced that the Jefferson Clinic Day will be held, Nov. 9, in the Wilkes-Barre General and Mercy Hospitals.

Herbert B. Gibby, Wilkes-Barre, read a paper on "Some Complications of Gallbladder and Biliary Duct Surgery." He said in part, that he would deal with only the complications which have occurred in his own experience. Even the simple cases can develop very annoying complications. Obesity always makes an operation difficult. A frequent complication is the control of hemorrhage and is due, first, to an obstructive jaundice or, second, to the friable condition of the tissues. Obstructive jaundice if not too far progressed can be treated satisfactorily with calcium preparations. If the treatment is ineffectual, blood transfusion should be used. The patient should be in the hospital for 3 or 4 days before operating or as long as necessary to reduce the clotting time. Pressure can be used to control the bleeding from an artery. Severe adhesions often cause hemorrhage in the process of breaking them up. Occasionally, even the bowel may acquire a tear which must be repaired.

Leakage of the bile into the peritoneal cavity is a complication. It may be due to loosening of the ligature on the stump of the cystic duct. This is not a serious mishap and after several weeks the fistula is healed.

CASE 1.—A female, age 48, complained of pain in the wrist, ankle, and right side; had arthritis and tenderness on the right side of the abdomen. On operation, September, 1922, cyst of the right ovary, chronic in-

flammation of the appendix, and gallbladder were found. Appendix and gallbladder were removed, and 10 days following she suddenly developed dyspnea and a pulse of 120. A needle was inserted between the sixth and seventh rib, dullness having extended above this point and bile-stained fluid was removed. On the next day she was operated on and the fluid was allowed to drain off.

CASE 2.—Patient complained of nausea, vomiting, and colic. In October, 1928, she was operated on and dense adhesions were found. The cystic duct was dissected free and the gallbladder was removed. After a smooth convalescence the patient was discharged in 2 weeks. Five days later a slight discharge was coming from the incision. In another 5 days the abdomen was found full of fluid and 2 gallons of bile fluid were removed. Later, another tap was done and 2 gallons again removed. On Dec. 1, she was operated on to discover the cause of the leak. Fluid drained through the wound and she was admitted to the University Hospital, Philadelphia. In September, 1929, another operation was done. The speaker always uses 20-day chromic gut as a ligature on the cystic duct.

CASE 3.—Mrs. R. S., operated upon, March, 1931: many gallstones were found. The hepatic duct entered at the lower end of the gallbladder and the cystic duct was dilated and contained 3 stones. An anastomosis of the hepatic with the common duct was done. The cut end of the common duct was not ligated so as to allow good drainage, and no back pressure on the sutures. After 9 months, jaundice appeared and after 6 weeks she applied for treatment. Calcium lactate was given. Later an operation was done, adhesions were present with stricture of the cystic duct. On the fourth day after operation, temperature was 104° F., and there was oozing from the wound which continued till death, which occurred on the twelfth day. The diagnosis was hemolytic hepatitis.

Two complications after cholecystectomy are reformation of the gallstones and carcinoma.

CASE 4 was given to represent the former, and CASE 5, the patient complained of severe epigastric pain, gas, which necessitated the use of morphia. Temperature was 100.8° F., pulse 86. Operated upon in 1914 and an inflamed gallbladder with stones found. A normal recovery was had. In 1921, seven years after the gallbladder drainage a dull ache through the back was experienced. Roentgen ray showed a fibrous band in the region of the gallbladder. In February, 1921, the gallbladder and fibrous tissue were removed; the latter was a scirrhous carcinoma. Nine months later she died with extension to the lungs.

MARJORIE E. REED, *Reporter*.

LUZERNE (HAZLETON BRANCH)— NOVEMBER

The regular meeting was held Nov. 8, at the Elk's Home. President William S. Carter was in the chair, and the guest speaker was Henry K. Mohler, chief of the medical services of the Jefferson Hospital, Philadelphia. Dr. Mohler read a paper on "Pneumonia," saying in part:

The pneumococcus of pneumonia is rarely a normal inhabitant of the mouth. It is, however, found in the surroundings of pneumonia patients and in those convalescent from pneumonia. Pneumonia is a transmissible disease. Theoretically every case is dependent for transmission from another, but practically such a relationship is not always, indeed not very often traceable. The contagiousness of pneumonia must be ad-

mitted. The immunity produced by an attack of pneumonia is not of long duration. Susceptibility returns, hence recurrence of attacks.

Though the pneumococcus is by all odds the chief cause of pneumonia, a word should be said about other causes, such as streptococcus, the influenza organism whatever it may be, and other organisms such as yeasts.

In the majority of cases the diagnosis is easy; a sudden onset of illness, pain in the side, cough and fever, rusty sputum, and leukocytosis mean pneumonia. In young children and senile persons, the diagnosis is often difficult. It is also difficult if pneumonia develops as a complication during the course of some other malady. Quite often in adults as well as in children one meets with cases that start out like pneumonia, with a chill and high fever, but with little or no cough, and without definite signs in the chest. After ruling out infection in the throat, in the upper respiratory tract, and the eruptive fevers, search should be made for evidence of pneumonia. The most satisfactory explanation of these cases is that the disease begins as a central pneumonia spreading afterwards to the periphery. On auscultation the breath sounds are muffled or suppressed, on coughing a few fine râles are usually heard, and the voice will have a nasal quality. If in addition the patient has an expiratory grunt, the diagnosis of pneumonia is justified. A high leukocyte count is valuable as a corroborative sign, but is not always present.

The most confusing cases are those in which pneumonia begins with abdominal symptoms. Pneumonia simulates appendicitis as well as gallstone colic. In one case an acute pleurisy was mistaken for acute pancreatitis. In all these instances the pain was located in the region of the organ that was supposed to be diseased. It is a good rule not to diagnose acute appendicitis or other abdominal disease until by thorough study of the chest pneumonia and pleurisy are excluded.

Treatment to be effective requires that the diagnosis be made and treatment begun at the earliest possible date. Treatment begun after the third day is usually of little avail. The sputum of a pneumonia patient should be disinfected because this disease may be transmitted by carriers and the pathologic types of pneumococci occur 10 times more frequently in the throat of pneumonia contacts than in noncontacts.

The patient is required to be bedfast, without bathroom privileges. The room should be so located that it is well lighted and readily ventilated, without the patient being exposed to drafts. The temperature of the bed room should be 72° F. or less, depending on the vigor of the patient. The problem that is uppermost in any plan of treatment is using means to combat toxemia. There is no better method to deal with this factor than by maintaining a free urinary output; keeping the bowels open and the skin moist. The activity of the kidneys is best maintained by the free use of water, it being the best diuretic. The daily urinary output should range from 2000 to 3000 c.c., at times even greater amounts, in an average weight adult. Twenty per cent glucose solution intravenously has proved beneficial in combating the toxemia.

Sponging the patient should not be done unless the temperature is over 104° F., but cold to the head gives comfort if the fever is above 102° F. If the skin is warm and dry, a fever mixture consisting of an alkali, *e.g.*, citrate of soda with sweet spirits of niter is beneficial. Pain may be controlled with codeine sulphate. Tympanites, an evidence of toxemia, is often troublesome, and may interfere with free breathing. For it, locally, counterirritation by turpentine stupes to abdomen, or mustard plasters prove beneficial. Generally,

pituitrin hypodermically is helpful. Tympanites is also benefited by the use of milk of asafetida enema, rectal tube, and asafetida suppositories.

If there is definite cyanosis the administration of oxygen or venesection often greatly relieves the condition. Circulatory failure may be present from almost the very beginning of the pneumonia, with marked toxemia. Here digitalis is useful if given in dosage of 10 to 15 minims 3 times daily. The onset of pulmonary edema is evidence of toxemia and circulatory failure. This condition is treated by the hypodermic injection of atropine, gr. 1/75, every hour or 2 for 3 doses; digitalis (preparation for hypodermic use) fourth hour, and caffeine sodium benzoate fourth hour, alternating so one or the other is given the second hour. For vasomotor paralysis as indicated by small rapid running pulse, with poor heart sounds 0.5 c.c. to 1 c.c. doses of epinephrine, 1:1000 solution, given hypodermically at 30-minute intervals for 5 or 6 doses may prove beneficial.

Convalescence is often not sufficiently supervised, and the effects may be noticed for many years after. Seven to 10 days in bed after the temperature returns to normal, and 10 days additional "getting around" before being allowed to leave the house, is a safe procedure in the average period of convalescence.

Serum treatment has not yet been universally accepted as the best form of therapy. It is being more extensively used now than heretofore in type I and type II cases, however, because a number of observations indicate its ability to reduce mortality in these cases.

In discussion, James A. Corrigan: I am glad to hear that counterirritation such as flaxseed poultices provide is still in vogue. We have found that a very convenient counterirritant may be had by using plasters of Bengué Balm Massage, covered over with cellophane. Such plasters, because of the vapors given off, seem to have additional value in alleviating upper respiratory distress in pneumonia.

J. M. Dyson: Dr. Mohler stressed the importance of not moving pneumonia patients. Occasionally patients are sent to the hospital on the fifth or sixth day of their disease. The benefit of hospitalization in such instances is of questionable value when compared with the danger in moving the patient so near the critical time. We do not use digitalis routinely in pneumonia in the Hazleton State Hospital, because its action is probably largely toxic on the myocardium. We reserve it for cases in which there is evidence of myocardial weakness unrelated to the pneumonia.

Herpes is considered to be a favorable prognostic sign in pneumonia. Mortality statistics from Bellevue Hospital seem to show that patients receiving digitalis do not do quite so well as those not receiving it as a routine measure. George B. Dornblasser asked Dr. Mohler whether he believes pneumococcus antigens are efficacious in treatment.

In conclusion, Dr. Mohler said that antigens are used to stimulate antibody formation, and this takes possibly 9 days or more. Their use certainly cannot be of value in lobar pneumonia, but may be in bronchopneumonia. To use or not to use digitalis is always a question for debate. We do not exactly use it routinely because of the danger of conduction defects, but we do use it frequently in selected cases.

JOHN M. DYSON, *Reporter*.

MIFFLIN—NOVEMBER

The meeting was held, Nov. 2, at the Lewistown Hospital. Plans were made for coöperating with the local

relief organization by the county society when the federal relief measures would sift down locally.

A. Reid Leopold, of Lewistown, read a paper on the "Treatment and Results of Varicose Vein Injection." The usual technic was discussed and the properties of the various types of solutions mentioned. Quinine and urethane seem to be the logical treatment for cases in which one can be sure of an intravenous injection. These are less painful than salicylates, saline, and other preparations. Sodium morrhuate in 5 per cent solution has been much discussed and used lately. It is ideal in that the injections are free from pain and do not cause slough if deliberately placed outside of the vein. This method can be used if it is impossible to locate the feeder veins supplying an ulcer, and it is desired to sclerose them. Intravenous injections give as good a sclerosing action as do the other types of solutions in the opinion of many who have had wide experience in this work.

Ulcer treatment was discussed. Direct pressure on the ulcer by means of a rubber sponge, through gauze, supporting the limb by an ACE bandage was recommended. Elevation of the limb is considered unnecessary and inadvisable if proper support is had for the limb.

A. REID LEOPOLD, *Reporter*.

MONTOUR—SEPTEMBER-OCTOBER

The meeting of the Montour County Medical Society was held, Sept. 15, at the Danville State Hospital. Reid Nebinger and A. J. Abbott discussed "Mastoiditis and Its Complications," and Sydney J. Hawley commented on roentgen-ray examination as a means of diagnosis. Acute ear infections which do not rapidly subside should be seen by a competent otologist. The onset of complications is often insidious and requires prompt and expert diagnosis. The best way to treat chronic ear infections is to prevent their chronicity by adequate treatment and early operation when indicated during the acute stage. A mastoid operation should be seriously considered if an ear discharges for more than 3 weeks.

The October meeting of the Montour County Medical Society was held in connection with the first of this year's Post-Graduate Medical Assemblies at the Geisinger Memorial Hospital on Oct. 26. Carl E. Ervin was chairman of the meeting. John Fraunfelder presented a case of "Carbon Monoxide Poisoning," and described its treatment with methylene blue intravenously. Recovery in this case because of prompt treatment was rapid and uneventful.

W. W. Vaughan presented a case of "Malta Fever." The diagnosis was confirmed by agglutination test. The patient recovered after having received a series of intravenous injections of typhoid vaccine administered for its nonspecific protein effect.

Sydney J. Hawley spoke on "Polycythemia Vera," illustrated with a case report. While drugs of the type of phenylhydrazine have been of assistance, roentgen-ray treatments are equally as effective and more accurately controlled. The roentgen-ray treatments, however, are only palliative, the disease being fatal.

Henry F. Hunt gave a lantern demonstration of the "Cytologic Changes in the Common Blood Dyscrasias." G. Paul Moser presented a review of "Acrodynia," illustrated with lantern slides and motion pictures." Carl E. Ervin and L. J. Schwalm discussed the treatment of gonorrheal and other types of chronic arthritis by pneumarthrosis and demonstrated the technic. John A. Kolmer, professor of medicine, Temple University, Philadelphia, presented a review of the present status

of biologic therapy in the prophylaxis and treatment of disease. The types of biologic therapy which to date have proved useful are as follows:

(a) Vaccine: (a) stock; (b) autogenous.

(b) Sera: Immune horse serum embracing the antitoxins, *etc.*; normal horse serum; convalescent or immune horse serum; and, normal human serum.

(c) Blood by (a) transfusion or (b) by intramuscular injection. Includes autohemotherapy.

(d) Various extracts of the allergens are exciting agents producing allergy, hay fever, asthma, *etc.*

(e) Various nonspecific proteins for the effects of nonspecific therapy.

Luncheon was served to about 95 visiting physicians. At the afternoon session, Dr. Kolmer discussed the methods of evaluating compounds employed in the treatment of syphilis and the amount of treatment to be given. He stated that arsphenamine, although one of the earliest of antisypilitic drugs developed, is still one of the best and safest. A syphilitic patient although apparently cured should have a serologic test at least once a year for the remainder of his life and should have at least one spinal fluid test before cessation of treatment.

J. Allen Jackson, superintendent of the Danville State Hospital, discussed the "Treatment of Paresis." He said that in the earlier years of his experience paresis was considered a hopelessly incurable disease, but that with modern methods of treatment, including malaria and arsenicals, 60 per cent of the patients are able to return to their homes.

Hawley Sanford discussed narcolepsy and gave a case demonstration.

Arthur E. Davis, of Scranton, discussed "Cardiac Irregularities" and commented on the Hurxthal motion picture films illustrating the mechanism of the heart beat. This excellent film illustrates graphically the neuromuscular changes responsible for electrocardiographic tracings. C. E. Phillips presented a case of arsenical dermatitis.

A Public Health Meeting, in celebration of Pennsylvania Health Day, was held in the Danville High School Auditorium, Nov. 8, at 8 p. m. The following program was arranged by Henry F. Hunt, chairman, the Public Relations Committee.

"Activities of Emergency Child Health Relief," Cameron Shultz, County Health Director; the "Geisinger Hospital and Its Relation to the Community," Harold L. Foss, superintendent, Geisinger Hospital; "Community Mental Health," J. Allen Jackson, superintendent, Danville State Hospital; "Medical Program in Federal Prisons," Joseph G. Wilson, medical director, Lewisburg Penitentiary; "The Problem of the Crippled Child," William J. Merrill, Philadelphia, consulting orthopedic surgeon, Geisinger Hospital. President R. E. Nicodemus, of the Montour County Medical Society, presided.

Because of the large attendance last year and because of repeated requests, an opportunity for postgraduate study is being offered by assemblies to be held each month throughout the winter at the Geisinger Hospital for the benefit of physicians practicing in this section. The second session was a "Goiter Symposium" on Dec. 1. The guest speakers were David Marine, of New York; Frank Lahey, of Boston; and William Reinhoff, of Baltimore.

FRANCIS W. DAVISON, *Reporter*.

WARREN—NOVEMBER

Burgess L. Gordon, of Jefferson Medical College, was the speaker at the November meeting. He referred

to some studies made on tuberculous patients in controlling pleural pressure by abdominal support. It was believed that the reason women suffering from tuberculosis seemed to feel more comfortable during pregnancy was that the child in utero pressed up the diaphragm thereby reducing the excursion of the lung as is attempted by an artificial pneumothorax.

In bronchiectasis and pneumoconiosis distinct improvement was obtained by the use of an abdominal belt to elevate the diaphragm. Lantern slides were shown illustrating this procedure.

The attendance was 33 members out of a possible 46, about 72 per cent. A report on Health Day, which was celebrated Nov. 6, was made. George S. Condit, James R. Durham, Clayton C. Flatt, and Christian J. Frantz were hosts for the dinner which followed.

The State Hospital staff has started a weekly meeting at that institution to which the members of the society are invited; and the physicians on service at the Warren General Hospital have inaugurated a monthly meeting at the hospital for reporting cases, to which any physician is welcome.

MICHAEL V. BALL, *Reporter.*

WESTMORELAND—OCTOBER

The Westmoreland County Medical Society met in the Latrobe Hospital, Oct. 10, at 8:00 p. m. The staff of the hospital was host for the evening and presented the program; the younger men predominated. They presented questions of practical interest to the general practitioner, the general practitioner whom we are hearing extolled by such leaders in the profession as the Mayo brothers, Harvey Cushing, and Dean Lewis. These educators are calling attention to an old truth which seemingly has been overlooked in recent years in the planning of medical education. That truth is that the proper preparation of the medical student for the broad and all embracing practice of medicine in the field known as general practice should be the chief aim of medical colleges. Let those who wish to practice in special lines do so after ample experience in general practice.

Alvin R. Megahan discussed a case of "Incarcerated Pregnant Uterus." The reasons the patient had for consulting the doctor were dwelled upon particularly: pain and difficulty in urination. Before being sent to the hospital the physician in charge made every effort to lift the uterus out of the pelvis but was unsuccessful. It was decided that the patient required operative relief. Under ether anesthesia on Oct. 10, 1933, an abdominal section was done, the uterus lifted out of the pelvis, and the patient discharged from the hospital on the tenth day. The pregnancy was not interrupted and the patient made an uneventful recovery.

Joseph F. Lechman talked on "Interesting Literature on the New Uses of Old Drugs," which included the new use of calcium gluconate given intravenously for the pain of cancer; of ergot in the treatment of surgical shock; of chlorotone in relief and prevention of seasickness and train sickness, in severe types of chorea and its uses in tetanus; of ovarian extract in the treatment of hemophilia. It has been observed and is generally known that there has never been a true case of hemophilia in a female. "One observer surmised that there was something in the female which would prevent the appearance of such a disease. Ovarian hormone was the thing." Experience in actual practice has proved this theory to be true. Pituitary extract has been used with success to relieve the pain of herpes zoster. Amidopyrine has found a place in the treatment of measles. Watermelon seed, "2 to 3 tablespoonfuls of

the decoction have been used as a diuretic; a single oral dose caused a fall in blood pressure in hypertension, the extent and duration of the fall being proportional to the dose in the same patient. After prolonged administration in 40 cases of hypertension there was a reduction of at least 10 mm. in 73 per cent of cases. The average fall in systolic pressure was 29 mm.; of the diastolic 15 mm. Out of 39 cases the symptoms referable to hypertension relief was obtained in 82 per cent. There were insufficient data to make conclusions concerning the effect of renal involvement upon its use. Absence of cardiovascular damage make for more hopeful results—though there was no consistent influence."

J. Wiley Hartman, Jr., read a paper on "The Significance of Cough in Infancy and Childhood." Cough may be acute or chronic and organically or psychically conditioned (nervous cough), irritative, laryngeal, croupy, whooping, etc. Acute cough is practically always organic. If a child suddenly begins to cough without any organic cause, one will often observe that somebody in its surroundings coughs exactly in the same manner. Any kind of a cough may be psychically aggravated, but a chronic cough is usually psychogenic and always psychically aggravated. The cough of children is often reported to be slight or hacking, and tuberculosis is feared. In very few cases is it really due to tuberculosis; it is practically always a tic and yields to suggestion treatment or may stop entirely on some indifferent medicine. The causes of cough are: inflammation of the nose and nasopharynx, coughs of pharyngeal origin, laryngeal conditions, trachea, bronchitis, lung, infectious diseases, and gastro-intestinal conditions. A case of enlarged thymus gland which caused cough and which was cured by roentgen-ray treatment was detailed.

Gervaise F. Nealon reported a case of malaria in a patient who never was out of this district except once when he went to a town 150 miles north of Latrobe. The diagnosis was made from the chills and fever, confirmed by blood examinations. During these blood examinations it was also discovered that the patient had paratyphoid fever as well as malaria. The diagnosis was confirmed too by the pathologist of a Pittsburgh hospital. With the use of quinine the patient made a good recovery.

At the conclusion of the meeting, luncheon was served.

THOMAS ST. CLAIR, *Reporter.*

YORK—NOVEMBER

The meeting was held, Nov. 18, President Francis R. Wise in the chair.

Martin E. Relfuss, Jefferson Medical College, Philadelphia, spoke on the "Medical Treatment of Gallbladder Diseases."

Commonest forms of upper abdominal indigestion are generally caused by the gallbladder. The anatomy and physiology of the gallbladder were given, laying special stress on the 3 layers of muscle of the gallbladder; that one can exhibit a contraction of the gallbladder muscle 2 to 3 times a minute; the musculature does some work; the muscularis mucosa is susceptible to disease; the organ acts rhythmically; Shofar showed that the type of bile in the gallbladder depends on the type which the liver forms, this in turn depends upon the type of portal blood; undue stagnation occurs; chemistry of bile is determined by the liver cell, this in turn by the portal system.

Cholesterol of bile depends on exogenous (diet) and endogenous (metabolic) sources; diet plays an important rôle.

Forty-eight per cent are infected; the other 52 per cent are sterile when submitted for study; in 26 per cent, bile not sterile; in 74 per cent, gallbladder wall but not bile infected.

Kinds of infection are: Typhoid-colon; streptococci; and staphylococci. Some preceding disease, either guins, throat, bowels, sinuses, tonsils, or teeth. The removal of the gallbladder does not always cure the individual, for the ducts, liver, and head of pancreas are often infected.

Diagnosis: History, physical examination, roentgen ray, and duodenal tube.

The gallbladder indigestion is flatulent type and the patient will have gas or distress whether something is in the stomach or not; this is in distinction to the stomach indigestion in which there is association with food eaten and regurgitation plus heartburn. Gallbladder patient is a tired patient, wakeful at night, and tired in morning; he must rest in the day, is sensitive to fats: 88 per cent have flatulent indigestion; 76 per cent have spastic constipation.

Physical examination shows tenderness or soreness with residual point of soreness after the acute attack. By roentgenography an attempt is made to visualize the gallbladder; halogen salts of phthalein are concentrated and kept in the bile. After medical treatment, one should use visualization by roentgen ray for comparison; oral administration of the dye preferred to intravenous. The duodenal tube does the same work as the roentgen ray, demonstrating nature of bile and gallbladder function.

Treatment: Omit fats and cod liver oil; small frequent meals are best, so as to cause small occasional contractions; modify the bile by giving Boldo, Carlsbad, Vichy; cinchophen works best with liver cases not badly damaged; the bourgeois formula of France. In America, the bile salts are used frequently. Constipation is very common; clear out bowel gradually, not by powerful purges and drastics. Patient is generally allergic. Remove all foci of infection; however, chronic focal (gallbladder) infection remains. Bowel lavage, then vaccinate with very small doses of vaccine, selecting the correct organism.

In discussion, J. Frank Small, York, asked the frequency of febrile association during the attack; Roland Jessop, York, asked when the medical treatment had

been carried far enough; James E. Throne, York, asked whether belladonna was useful in these cases; Benjamin A. Hoover, Wrightsville, asked if it was deleterious for a patient to take a lot of fat after removal of the gallbladder; Alma A. Thorun, Hallam, asked if the duodenal tube was valuable when not anticipating surgery and as to the value of the duodenal tube after operation; Louis S. Weaver, York, spoke of the danger of hemorrhage in removing gallbladders; W. Frank Gemmill, York, spoke of probing the ducts for stones and the value of large doses of formin in an alkaline medium, also the experience and accuracy of the speaker as regards the sediment test in jaundiced patients; George E. Holtzapple, York, asked if sodium salicylate or salicylic acid were useful as far as improving infection of biliary tract; also, if typhoid bacilli were common in the center of gallstones; Charles Rea, York, asked if the cholesterol content of food was not a very important point as the liver is the center of the cholesterol metabolism.

Dr. Rehfuess, in closing, stated that the average chronic gallbladder case is not febrile; seasonal liability to gallbladder disease; gross damage, stones, or hopeless disease means operation; if occasional localization of pain, *etc.*, the case is medical; majority of cases of stones must be operated upon. Doubtful gallbladder function should be medical. Belladonna is a great antispasmodic but he prefers Hyoscyamus or spasmolysin with atropine and papaverin or atropine valerianate. After operation, patient needs a diet to conserve liver function; green vegetables, fruits, then add flour and cereals. Duodenal tube, postoperative, is very valuable especially in low-grade catarrh of common duct. Hemorrhage is dangerous. Stones in common duct are silent with most jaundice. The administration of large doses of formin (100 grains per day plus alkalies) does not cover the effect on kidneys; one can not modify the alkali reserve of the bile. Lithium salicylate, 20 grains daily, may be useful; decholin and felamine may light up recent or old cases to activity. Cholesterol content of food difficult to estimate. Infection and allergy is a constitutional state of incomplete immunity. Propeptans for hypersensitive individuals.

This was the best attended meeting for 3 years.

H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

MESSAGE FROM CHAIRMAN OF ARCHIVES

An open letter to each member of The Medical Society of the State of Pennsylvania and its Auxiliary from the Chairman of Archives of the Auxiliary follows:

November 6, 1933.

MY DEAR FRIEND:

This year part of my work as Chairman of Archives will be the beginning of a permanent exhibit, of anything from anytime pertaining to the art and practice of medicine. Books, instruments, records, utensils used in the preparation of medicines, articles used in doctors' offices, old diplomas, certificates, medicine and instru-

ment cases are the things which should go into the making of an exhibit worthy of the Medical Society and its Auxiliary.

Each article received will bear the name of the donor; the name of the man or woman who used it, the dates of his birth and death, his graduation, and name of his medical school, his place of residence, and data pertinent to his medical life in his community. In that way each article in this exhibit will be a permanent record and a permanent monument to the man whose name it bears.

For this exhibit I am setting aside a room in my home, where it will be, at all times open to interested persons. Also I hope to have it take its place each year, as a very interesting part in the exhibits at the State meetings.

To that end I am asking that you, in order to preserve to our posterity the life work of those who have gone, assist me in this work by sending me at once, something from some one medical whom you held dear, which will be his tablet of fame, in our Medical Memorial.

Very sincerely yours,

MARGARET O. (MRS. DAVID B.) LUDWIG, *Chairman,
Committee on Archives.*

6231 Wellesley Ave.,
Pittsburgh, Pa.

COUNTY AUXILIARY REPORTS

Allegheny.—On the evening of Dec. 1, 1933, the auxiliary held its Annual Benefit Party in the College Club of Pittsburgh. The party this year took the form of a supper dance and bridge, the subscription price for which was \$3 a couple.

On Nov. 28, the Birthday Meeting was held at the College Club. Dr. William H. Mayer was the speaker.

Members who pay their dues now should make checks payable to Mrs. A. F. B. Morris, treasurer—and remember that out of each member's dues one dollar goes to the Medical Benevolence Fund, than which there is no better insurance in the world.

Berks.—The regular monthly meeting was held in Medical Hall, Oct. 9, at 2:30 p.m., with Mrs. Wellington D. Griesemer, presiding. Following the business session, Mrs. Griesemer gave a detailed and constructive report on the State Convention, held in Philadelphia, Oct. 2 to 5. Mrs. William F. Krick had been chosen to represent the State of Pennsylvania at the National Convention, to be held during June, 1934, in Cleveland.

Mrs. Leon C. Darrah, chairman of the Program Committee, introduced Miss Helen Cleaver, who spoke on the preventive work that her organization is doing in tuberculosis. Through the medium of the motion picture, her talk was made graphic and educational.

An interlude of music followed.

Mrs. Cecil Freed, chairman of the *Hygeia* Committee, had charge of the remainder of the program.

Butler.—The annual election of officers was held at the business meeting of the auxiliary, following a dinner of the Medical Society and Auxiliary at Hotel Nixon, June 13. The following officers were elected: President, Mrs. Robert S. Lucas; first vice-president, Mrs. William J. Armstrong; second vice-president, Mrs. Nicholas A. Dombart; secretary, Mrs. John W. Shadle; treasurer, Mrs. E. L. Mortimer; *Hygeia* chairman, Mrs. Ralph M. Christie.

The September meeting was held at the hospital with 12 members present; Mrs. Robert S. Lucas, presiding. Mrs. William J. Armstrong gave a talk about poliomyelitis. Miss Mabel Grace Wilson, superintendent of the Butler County Memorial Hospital, spoke concerning the things needed at the hospital and told the members how their services would be helpful. Material was received from Miss Wilson which will be made into towels for hospital use. A social hour followed the meeting.

October 14 was "Donation Day" for the Butler County Memorial Hospital by the Auxiliary with the cooperation of the Hospital Auxiliary. On that day fruits, vegetables, and canned goods were received.

Dauphin.—The regular meeting was held on Nov. 21, at 2:30 p.m., at the home of Miss Edna Muirard, Colonial Park. Miss Anne U. Wert gave an address on "Some Picturesque Mediterranean Places." Mrs.

Clarence R. Phillips spoke on "Current Medical Events." The musical program was in charge of Mrs. J. Landis Zimmerman. The members who attended the Halloween party given by the York County Auxiliary recommend that reciprocity meetings between counties be held more often as they cement friendly relations between doctors and their wives, a fundamental reason for the existence of medical auxiliaries. The auxiliary will have a Christmas party.

Delaware.—The annual meeting and luncheon was held at the Media Inn, Media, Oct. 10, 1933.

After luncheon the meeting was called to order with Mrs. William B. Evans, the president, in the chair. Twenty-three members and a guest of honor, Mrs. Fielding Otis Lewis, of Philadelphia, were present.

Mrs. Richard Owen, chairman, Membership Committee, reported 6 new members: Mesdames Taylor M. Beagle, Herman Gold, Roland W. Banks, John P. Nolan, John E. Smaltz, and Mrs. Wentz, Jr.

The treasurer reported a balance of \$59.12 in the treasury to Oct. 12. A letter was read from Dr. Walter F. Donaldson, secretary, of the Benevolence Fund, thanking the auxiliary for its contribution. It was decided to change the depository of the auxiliary from a bank in Chester to the First National Bank of Media for the convenience of the treasurer.

A letter from the Red Cross was read thanking the auxiliary for a contribution of \$25, as well as for surgical dressings made. Letters of thanks were read for flowers sent. Letters of resignation were read from Mrs. Robert S. Maison and Mrs. Paul C. Crowther.

Mrs. George L. Armitage announced a card party for the benefit of the Chester Hospital.

The following officers were elected: President, Mrs. Adrian V. B. Orr; vice-president, Mrs. E. Arthur Whitney; treasurer, Mrs. Ralph E. Bell; secretary, Mrs. Walter A. Landry.

Mrs. Frank R. Nothnagel asked the members to make dressings for the Red Cross.

The new president, Mrs. Orr, was inducted into office.

Mrs. Fielding Otis Lewis gave an interpretation of her ideas of the work that it is possible for an auxiliary to accomplish. She also invited our members to attend the meeting of the Philadelphia Auxiliary on Nov. 14, at which Dr. Barrett talked on Palestine and showed lantern slides.

The meeting adjourned to play cards.

Erie.—The first meeting of the season was held at the summer home of Mrs. George W. Schlindwein. Mr. Brooks, representative of the Erie Community Chest, spoke on the needs of the chest. After a business meeting, the gardens and grounds were viewed by the guests. Tea was served.

The November meeting was held on Nov. 6, at the home of Mrs. B. Swayne Putts. Following the business meeting, the members served tea to the Visiting Nurses' Association.

Indiana.—The annual meeting was held at the home of Mrs. John A. Elkin, in Smicksburg, Oct. 19, with 23 members and 3 guests present. Reports of the year's work were given by various committees. The historian, Mrs. H. DeV. Hotham, read a paper of historical value. The following are the officers for the ensuing year: President, Mrs. Frank B. Stevenson; first vice-president, Mrs. William F. Weitzel; second vice-president, Mrs. James C. Glasser; president-elect, Mrs. F. J. Kellam; secretary, Mrs. Warren L. Whitten; treasurer, Mrs. Todd R. Boden; directors, Mrs. Charles H. Bee and Mrs. George E. Simpson.

At the conclusion of the business meeting a musical program was rendered.

Nine meetings have been held during the year; 2 being social events; also one benefit bridge.

Fifteen dollars were contributed to the Medical Benevolence Fund. The year closes with a membership of 38.

Lancaster.—The September meeting was held at the home of Mrs. John T. Herr, in Landisville. After the business meeting, the members were entertained musically. Cards were played and refreshments served.

In October, Mrs. Clarence R. Farmer opened her home in Lancaster for a bridge-tea party, for the benefit of the Benevolence Fund. Prizes were given and refreshments served.

The annual banquet was held Nov. 8, at the Y. W. C. A. The members regretted that the State president, Mrs. Edward Lyon, was unable to attend. During the dinner, there were several vocal solos. Dr. Clarence R. Farmer, chairman of the Public Relations Committee of the Medical Society, explained in detail the preventive medicine and public health work recommended by the State. He announced that a Public Health Meeting would be held in Lancaster, the evening of Nov. 8, and all were urged to attend.

The business meeting followed, in which the members voted to give 12 surgical towels to each hospital, and 3 subscriptions to place *Hygeia* in public institutions. Reports of the State Convention were given by delegates. The next meeting will be held in January.

Lawrence.—A luncheon was given in the Castleton Hotel by officers of the auxiliary, with members of the auxiliary as guests. The tables were arranged for 25.

A business session followed and reports of the convention held in Philadelphia, Oct. 2 to 5, were given by Mrs. T. E. Biggins, of Sharpsville, and Mrs. W. W. Richardson, of Mercer.

Officers of the auxiliary comprise Mrs. James M. Blackwood, president; Mrs. Samuel W. Perry, first vice-president; Mrs. Loyal W. Wilson, second vice-president; Mrs. James D. Crawford, secretary; and Mrs. Edwin H. Willmarth, treasurer. Luncheon was served.

The remainder of the afternoon was devoted to a social period.

The next meeting will be in January, at the home of Mrs. Louis W. Grossman with Mrs. Earl F. Henderson, Mrs. Ernest U. Snyder, Mrs. Edwin C. McComb and Mrs. Don C. Lindley as associate hostesses.

Luzerne.—A meeting was held on Nov. 1, at the Wyoming Valley Women's Clubhouse, Mrs. Clarence W. Prevost, of Pittston, presided. Dr. Jesse P. Janjigian spoke on "Mental Hygiene," and stressed the importance of good mental health habits in childhood. Mrs. Charles Long spoke on the "Mental Health Institute," and the auxiliary endorsed her plan to sponsor a mental health clinic, held on Dec. 4. The executive committee assisted Mrs. Long in this project. Our delegates gave reports of the State convention, recently held in Philadelphia.

A business meeting was held following the addresses. There were committee reports by the various chairmen; a letter from the newly appointed State president was read. During the meeting, the members folded pamphlets for the welfare federation. The members voted to assist the County Medical Society in their Health Day Program.

Mercer.—The Mercer County Medical Auxiliary was organized in September. A report of the officers elected and the program of activities decided upon may be looked for in an early issue of the JOURNAL.

Montgomery.—The auxiliary held a short business meeting on Nov. 1, at the Nurses' Home. It was decided that the auxiliary would sponsor a supper dance and card party. The president, Mrs. J. Newton Hunsberger, appointed a committee to make arrangements for the affair, the date to be announced. After the meeting a benefit card party was held, and the proceeds, \$6, will be sent to the Corinne Keen Freeman National Memorial Fund. Prizes were awarded at each table. The afternoon was concluded with serving tea.

Northampton.—Instead of a regular meeting, a joint meeting was held with Lehigh County Medical Auxiliary, at the Elks' Club, Allentown, to honor the new State president, Mrs. Edward Lyon, of Williamsport, Mrs. Ramer presiding. Luncheon was served. After a business session of Lehigh County Auxiliary, Mrs. Lyon spoke on the value of the auxiliary to the physician, public relations and preventive medicine. After the meeting the group adjourned to play cards.

Philadelphia.—The business meeting of the auxiliary on Nov. 14 was followed at 3 p.m. by an address by Robert S. Barrett, a Fellow of the Royal Geographic Society. He spoke particularly on Palestine, prefacing his address by some remarks about the work founded by his mother, the National Florence Crittenton Mission, of which he is president.

The Public Relations Committee of this auxiliary chose for its first piece work this year the entertainment of the wives of physicians attending the Graduate Medical School of the University of Pennsylvania. At this meeting the committee welcomed the following group: Mrs. J. T. Pollard, Port au Prince, Haiti; Mrs. Walter M. Anderson, San Diego, Calif.; Mrs. Charles F. Willis, Evansville, Ind.; Mrs. L. D. Scheinbey, Moorehead, Miss.; Mrs. H. W. Greenburg, Memphis, Tenn.; Mrs. R. A. Phillips, Elk Point, S. D.; Mrs. Aaron Gopcik, Waukegan, Ill.; Mrs. J. H. Harris, Great Falls, Mont.; Mrs. D. H. Trowbridge, Fresno, Calif.; Mrs. L. Calvin Ogburn, Del.; Mrs. W. T. Bucher, Cuyahoga Falls, Ohio; Mrs. W. C. Robart, Akron, Ohio; Mrs. Thomas F. Furlong, Jr., Bryn Mawr, Pa. It is the wish of the auxiliary to help make the stay of these young women in a strange city a happy and friendly one. A tea in their honor will be given in December at the home of Mrs. Fielding O. Lewis, president.

The Ways and Means Committee gave a largely attended card party at the County Medical Society Building on Nov. 20.

Tioga.—The auxiliary met on Oct. 28, in Blossburg, at the home of the president, Mrs. John R. Davis. State President Mrs. Edward Lyon and a past counselor, Mrs. Walter S. Brenholtz, were present. Officers were elected and plans outlined for the coming year. Mrs. John H. Doane, of Mansfield, spoke on "What Is Expected of a Doctor's Wife." Mrs. Lyon gave an informal talk, suggesting activities of the auxiliary. A new member was introduced and 2 new subscribers to *Hygeia* reported.

Medical News

Births

TO DR. AND MRS. J. MONTGOMERY DEEVER, Wyncote, a daughter, Nov. 14.

TO DR. AND MRS. JAMES BURROWS, Williamsport, a son, Richard Kiessling, Oct. 1.

TO DR. AND MRS. THOMAS PARKE, Downingtown, a daughter, Martha Hoopes, Nov. 5.

TO DR. AND MRS. LEWIS EMMOR WELLS, JR., Waynesburg, a son, Charles Lewis, Aug. 30.

TO DR. AND MRS. WILLIAM LEWIS WEBER, Philadelphia, a son, William Lewis, Jr., July 16.

Engagement

MISS SARAH ST. CLAIR REED, daughter of Dr. and Mrs. Charles Paul Reed, Indiana, and Mr. Joseph Rittenhouse Weir Dodge, Allenhurst, N. J.

Marriages

MISS NELLIE H. OAKES, Hazleton, to Dr. Joseph Thomas Cadden, Philadelphia, Oct. 13.

MISS ELLEN HARRINGTON to Dr. Paul Newton Morrow, both of Philadelphia, in October.

DR. LAURA M. FISHER, Reading, to Dr. Harold J. Dvorak, Minneapolis, Minn., Sept. 20.

MISS EUNICE MAY ROUSHER, Ocean City, N. J., to Dr. Austin Lewis Kimble, Manoa, Sept. 7.

MISS MARTHA JANE GREEN, Carlisle, to Dr. Frederic E. Sanford, Jersey Shore, Nov. 17.

MISS ISABELLE MENZIES SCOTT, Forty Fort, to Dr. Charles W. Letcher, Wilkes-Barre, Oct. 16.

Deaths

MRS. ADALINE TOBIAS, wife of Dr. John B. Tobias, Wilkes-Barre; Oct. 11.

HOWARD A. LONG, Brickerville; Baltimore Medical College, 1893; aged 61; Sept. 14.

JOHN H. KILEY, Blossburg; Starling Medical College, Columbus, 1886; aged 72; Oct. 2.

WILLIAM G. McLAUGHLIN, son of Dr. and Mrs. P. A. McLaughlin, Wilkes-Barre; Oct. 9.

JOHN J. O'BRIEN, son of Dr. and Mrs. John P. O'Brien, Philadelphia; aged 21; Oct. 31.

HENRY C. ISEMAN, Beaver Falls; licensed, Pennsylvania, 1885; aged 101; Sept. 5, in Ithaca, Mich.

ELMER G. WHINNA, Philadelphia; Hahnemann Medical College, Philadelphia, 1891; aged 64; Sept. 30.

CHARLES H. HUBBARD, Swarthmore; Hahnemann Medical College, Philadelphia, 1883; aged 83; Nov. 12.

DAREALL GRANT BLACK, Wilkinsburg; University of Pittsburgh School of Medicine, 1899; aged 70; Oct. 14.

MAURICE O. PUTT, Oberlin; University of Pennsylvania School of Medicine, 1873; aged 81; Sept. 29.

CHARLES ALOYSIUS O'REILLY, Devon; University of Pennsylvania School of Medicine, 1900; aged 55; Nov. 1.

CHARLES BENNETT WOOD, Monongahela; University of Pennsylvania School of Medicine, 1876; aged 84; recently.

FREDERICK A. ACHEY, Lancaster; University of Pennsylvania School of Medicine, 1886; aged 71; Sept. 2, gastric hemorrhages.

GEORGE M. KELLY, North East; University of Pittsburgh School of Medicine, 1888; aged 69; June 1, uremia and prostatic hypertrophy.

BENJAMIN BUTLER JEFFERS, Steelton; Howard University College of Medicine, Washington, D. C., 1897; aged 61; Sept. 30, chronic nephritis.

WILLIAM FREDERICK KAERCHER, Philadelphia; Hahnemann Medical College, Philadelphia, 1885; aged 73; Oct. 13, carcinoma of the prostate.

WILLIAM WAYNE BARCOCK, 3d, son of Dr. and Mrs. W. Wayne Babcock, Philadelphia; aged 8; Nov. 5, at Temple University Hospital, cause of death, blood stream infection.

LOUIS S. MERSHON, Alhambra, Calif. (formerly of Philadelphia); aged 75; in November. Among his survivors is a brother, Dr. John V. Mershon of Philadelphia.

MOSES SCHONFIELD, Pittsburgh; University of Pittsburgh School of Medicine, 1901; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 53; Oct. 23.

MRS. ANNIE PRICE SHUMWAY, wife of Dr. Edward A. Shumway, Philadelphia; Nov. 14. Mrs. Shumway was active in the West Philadelphia branch of the Visiting Nurses' Association.

HARVEY M. GRIGGS, Philadelphia; University of Maryland School of Medicine, 1890; aged 67; Aug. 20, in the Homeopathic Hospital, Reading, of injuries received in an automobile accident.

GEORGE W. DIPPEL, Pittsburgh; University of Pittsburgh School of Medicine, 1902; born in Pittsburgh, Jan. 13, 1879; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 54; Oct. 31.

WILLIAM E. WOLFF, Arendtsville; Medico-Chirurgical College, Philadelphia, 1897; member of the staff of the Warner Hospital, Gettysburg; member of his county and State medical societies and the A. M. A.; aged 64; Nov. 3.

EDWIN ISAAC BECKER, Philadelphia; Jefferson Medical College, 1897; member of the Jewish Hospital and Germantown Hospital staffs; aged 57; Oct. 29, died suddenly in his office. He is survived by his widow, a daughter, and a son.

MRS. LOUISE GASKILL FOX, wife of Dr. Herbert Fox, Haverford, director of the William Pepper Clinical Laboratory, University of Pennsylvania School of Medicine; aged 51; Nov. 16. In addition to her husband she is survived by a daughter and a son.

WILLIAM HERSCHEL KNAP, Ardmore; University of Illinois School of Medicine, 1886; aged 73; Nov. 7. Dr. Knap came to Ardmore in 1900 and practiced medicine there until a few years ago when he retired. He is survived by his widow, a sister, and 2 brothers.

MRS. MARGARET DUDLEY WALKER, Bethlehem; aged 62; Aug. 17, following an operation. Mrs. Walker was the widow of Dr. William Pomp Walker, who died 2 years ago and for many years was one of the surgeons at St. Luke's Hospital, Bethlehem. Among the survivors is a son, Dr. Dudley P. Walker of Bethlehem.

MRS. CECILIA BEATRICE BICKERTON FOX, Philadelphia, widow of the late Dr. L. Webster Fox; aged 73; Oct. 12, heart disease. Mrs. Fox was one of the founders of the Art Alliance Trans-Atlantic Society and for several years was president of the Society of the Daughters of the British Empire. She is survived by a son and daughter.

FRANCIS M. HAYES, a senior student, Temple University School of Medicine; aged 24; Nov. 2, was killed with a companion in an automobile accident near Boyertown, Pa. He is survived by his parents, Dr. and Mrs. Leo Z. Hayes, Force, Pa., and the following brothers and sister who are physicians, Helen Hayes Ryan and Vincent Hayes, Philadelphia; and Gerald Hayes, Ridgway.

JACOB MARKWOOD PETERS, Eberly's Mills; Jefferson Medical College, 1886; served many years as a surgeon in the Eighth Regiment, Pennsylvania National Guard; preceding the World War, he served with his regiment on the Mexican Border; retired with the rank of major; member of his county and State medical societies, and the A. M. A.; aged 71; Nov. 15. He is survived by his widow, 3 nieces, and 3 nephews.

ARTHUR J. WILLSON, Philadelphia; University of Pennsylvania School of Medicine, 1901; former University of Pennsylvania track star; aged 58; Oct. 29,

from drinking poison. Dr. Willson left a note which indicated he had committed suicide. In 1901 he began the practice of medicine in Scranton; some 10 years ago he came to Philadelphia and entered the real estate business but lately devoted all his time to medicine. He is survived by his widow.

LOUIS AUDENRIED SALADE, Medford, Ore. (formerly of Philadelphia); University of Pennsylvania School of Medicine, 1888; aged 69; Nov. 14. Dr. Salade was born in Tamaqua, the son of a physician. He began practice in Catasauqua, Pa. He was surgeon at the Methodist Hospital, Philadelphia, from 1907 to 1910, when he retired on account of ill health. Dr. Robert C. Coffey, of Portland, Ore., and an assistant were killed in an aeroplane accident while en route to perform an emergency operation upon Dr. Salade.

WILLIAM WORMIAN LIVINGOOD, Robesonia; University of Pennsylvania School of Medicine, 1899; aged 57; Oct. 25. He was born in Reading and was a life long resident of Berks County; was elected to membership in his county society in 1901, and remained an active member until 1932 when honorary membership was conferred upon him. He was a member of his State Society and a Fellow of the A. M. A. After practicing medicine for a number of years in Reading he retired from general practice and moved to Robesonia and devoted the time to his farms.

Herbert A. Arnold, Ardmore; Jefferson Medical School, 1878; aged 76; Oct. 27, at the home of his son, Dr. Clifford H. Arnold, Ardmore. Dr. Arnold practiced on the Main Line for 50 years. He served in Puerto Rico during the Spanish American War and retired from the National Guard in 1914 as lieutenant colonel. He was an affiliate member of the Montgomery County Medical Society, and a member of his State Society; also a member of the Naval and Military Order of the Spanish American War, of which he was former State Commander, and the Military Order of Foreign Wars. He is survived by 3 other sons and a daughter.

JOHN SPEESE, Philadelphia; University of Pennsylvania School of Medicine, 1902; associate professor of surgery in the Graduate School of Medicine, University of Pennsylvania; president of the medical and surgical staff of the Presbyterian Hospital; president of the Philadelphia Academy of Surgery at the time of his death; Fellow of the American College of Surgeons; member of the American Surgical Association and of the Surgical Research Club; consulting surgeon to the Philadelphia Home for Incurables; a member of his county and State medical societies and the A. M. A.; contributed to medical and surgical journals, and the author of many brochures on surgical subjects; aged 53; Oct. 15. He is survived by his widow, a son, and a sister.

JOSEPH ELMER SCHAEFER, Quigerville; College of Physicians and Surgeons, Baltimore, 1896; aged 65; Sept. 15, at the Williamsport Hospital. Dr. Schaefer was born at Quigerville, Lycoming Co., Sept. 14, 1868. He received a rural school education, and entered the Lycoming County Normal School in 1885 to prepare for teaching. He taught 8 years at Pennsdale, Quigerville, Crescent and Pleasant Valley. He began to practice medicine in 1897 in the community where he was born, and continued to do so until his illness began last June. He was a member of his county and State medical societies, and a Fellow of the A. M. A. He was Democratic Standing Committeeman for Lycoming Township for 20 years; and a member of the Board of Education of Lycoming Township from 1907 to 1922, the greater part of the time serving as secretary. He is survived by his widow, a son and a daughter.

Miscellaneous

ST. JOSEPH'S HOSPITAL, Lancaster, celebrated its Fiftieth Anniversary, Oct. 18.

DR. LEONARD F. BENDER, Philadelphia, has been

elected in charge of the Pediatric Department of the Episcopal Hospital.

THE EASTERN BRANCH OF THE DELAWARE (PA.) COUNTY MEDICAL SOCIETY, organized and held its first meeting at the Fitzgerald Mercy Hospital, Lansdowne, Sept. 26.

DR. FREDERICK S. BALDI, Philadelphia, was elected president of the Medical Section of the American Prison Association at their meeting in Atlantic City, N. J., Oct. 6.

DR. H. BROOKER MILLS, emeritus professor of pediatrics, Temple University School of Medicine, has been appointed consulting pediatricist to St. Agnes' Hospital, Philadelphia.

DR. A. F. HARDT, Williamsport, read a paper on "Electrosurgery and Radium," at the meeting of the Association of Surgeons of the Pennsylvania Railroad, held at Cincinnati in October.

DR. HENRY WILDERMAN, Philadelphia, sailed recently for Europe where he will spend a year for postgraduate studies of diseases of the heart at the Universities of Switzerland and France.

DR. J. D. LEEBRON of the Graduate School of the University of Pennsylvania addressed the Parent-Teachers' Association at its monthly meeting in Woodbine, N. J., on the "Care and Feeding of the Growing Child."

DR. LEWIS E. WELLS, Jollytown, a first lieutenant in the Medical Reserve Corps, U. S. A., is on a year's active duty with the Civilian Conservation Corps. He will resume private practice in June at Waynesburg, Pa.

DR. EZRA A. WHITNEY, chief physician at Elwyn Training School, has been appointed instructor in psychiatry in the Medical Department of the University of Pennsylvania. He will also teach in the Graduate School.

AN INFORMAL TESTIMONIAL DINNER was tendered Dr. Addinell Hewson, Oct. 10, by the Dental Alumni Association of Temple University, in honor of his many years of service as professor of anatomy in the Dental School.

THE PENNSYLVANIA STATE BOARD of Medical Education and Licensure will hold its midwinter examinations in Philadelphia, Jan. 2 to 6, 1934. The written examination will be held Jan. 2, 3, and 4; and the bedside examination the 4th, 5th, and 6th.

DR. PAUL CORRELL, chief surgeon of the Easton Hospital was the speaker at the October meeting of the Northampton County Medical Society; he also addressed the members of the Bradford County Medical Society in Towanda, Oct. 27, on "Gallbladder Disease."

THE PHILADELPHIA CHAPTER of the Physicians Square Club gave a dinner at the Sylvania Hotel, Oct. 30, to honor Dr. Herbert Goddard of Philadelphia, who has been elevated to Superior Sublime Healer of the Physicians Square Clubs of America; and Dr. John H. Frick, who has been elected Sublime Healer of the Philadelphia Chapter.

OUR MEMBERSHIP RECEIVED in November, Volume 28, No. 7, American Medical Association Bulletin, issue of October, 1933. This issue of the bulletin contains very instructive articles on Emergency Relief and other matters of interest to the general practitioner pertaining to organized medicine. We would urge our members to read carefully this issue of the bulletin.

WOMEN STUDENTS WERE ADMITTED to the School of Veterinary Medicine of the University of Pennsylvania this year for the first time in the history of that school. According to Dean George A. Dick, the growing demand on the part of women for such education is due to the many new opportunities opened to veterinarians in public health work and in research laboratories.

IN 1926 THE *Medical Comment*, the official bulletin of the Cambria County Medical Society, Pa., published an article by Dr. H. W. Salus, Johnstown, on the "Mystery Drug." The article deals with opium, its uses and abuses. The Director of Opium Traffic and Social Questions Section, League of Nations, Geneva, recently made a request for a reprint of this article.

THE AMERICAN COLLEGE OF SURGEONS has announced the approval of 2384 American hospitals. The total approved constitutes 67 per cent of the 3554 institutions surveyed by the college. One hundred and thirty-five more hospitals were approved this year than last year. This is the sixteenth year in which the college has published its list of approved hospitals. Only 89 hospitals met the requirements the first year.

MRS. ALICE F. LIVERIGHT, secretary of welfare of Pennsylvania, on Sept. 28, discussed at Harrisburg with the superintendents of State-owned general hospitals plans for the standardization of these institutions. The Department of Welfare proposes to put into effect standardized rates for paid patients. There was also discussed the question of payment for interns, pathologists, and radiologists.

THE FIRST ANNUAL ASSEMBLY of the Omaha Mid-West Clinical Society was held at Omaha, Nebraska, Oct. 30 to Nov. 3. The following Pennsylvanians participated: Joseph C. Birdsall, Philadelphia, who delivered addresses on "Diagnosis and Treatment of Renal Infections," and "Diagnosis and Treatment of Urinary Calculi," and also conducted a urologic clinic; Frederick DeForest Weidman, Philadelphia, delivered addresses on "Commonly Misunderstood Features About Cutaneous Cancer" and "Dermatophytosis Down to Date," and conducted a clinic on dermatophytosis.

AT THE JOINT MEETING of The Section on Medical History of the College of Physicians and The Philadelphia Psychiatric Society, held Nov. 13, Dr. Howard W. Haggard, of Yale University (by invitation), read a paper on "What a Frail Sunday School Teacher Did for Medicine and Humanity." Dr. Charles W. Burr read a paper "How a Yorkshire Tea Merchant and His Descendants Effected a Great Medical Reform." Dr. Francis R. Packard: Motion Picture Illustrating the Advent of Anesthesia (some of the actors in this drama are descendants of the original figures in this historic event). Credit was given to Morton.

A CHARTER HAS BEEN GRANTED to the Edward G. Heyer Memorial Clinic, organized for the treatment and care of individuals suffering from cancer and other disease for research purposes; to receive gifts and donations for maintaining the clinic; and to treat patients without reimbursement when necessary. The business of the clinic is to be transacted in Nanticoke, the home of the late Dr. Edward G. Heyer, for years superintendent of the Nanticoke State Hospital. Officers are Vincent B. Sheeder, Wanamie, president; William E. Weineck, Nanticoke, secretary; C. E. Bennett, Nanticoke, treasurer; C. K. Gloman, Wilkes-Barre, and Fred W. Heyer, Nanticoke, other incorporators.

THE AMERICAN ASSOCIATION FOR THE STUDY OF GOITER, for the fifth time, offers \$300 as a first award, and two honorable mentions for the best essays based upon original research work on any phase of goiter presented at their annual meeting in Cleveland, Ohio, June 7 to 9, 1934. It is hoped this will stimulate valuable research work, especially in regard to the basic cause of goiter.

Competing manuscripts must be in English, and submitted to the corresponding secretary, J. R. Yung, M.D., 670 Cherry St., Terre Haute, Ind., not later than April 1, 1934. Manuscripts received after this date will be held for the next year or returned at the author's request.

AT THE ANNUAL MEETING of the Homeopathic Medical Society of Pennsylvania, held in Philadelphia in

September, C. Dudley Saul, Philadelphia, was elected president; Jonas W. Stitzel, Hollidaysburg, first vice president; Joseph W. Post, Philadelphia, second vice president; Charles F. Kutteroff, Philadelphia, secretary; J. Sewell Stewart, Pittsburgh, treasurer; George A. Hopp, Philadelphia, necrologist; and William K. Matthewson, Altoona, censor. The society passed a resolution urging that women students be admitted to Hahnemann Medical School which with Jefferson Medical College are the medical schools in Philadelphia not admitting women students.

ANNOUNCEMENT IS MADE of the Annual Case Report Contest for the interns of approved hospitals in Allegheny County under the auspices of the Allegheny County Medical Society. A series of prizes is offered annually for the best case reports submitted by interns, the first prize being \$25; the second, \$15; and the third, \$10. Honorable mention will be made of such manuscripts as the judges deem worthy. The report must be that of a case which has been under the care of the intern, and shall not consist of more than 1000 words. The 3 judges are appointed by the president of the society and their decisions are final. All manuscripts submitted become the property of the society, and may be published in the bulletin of the society.

ON THE OCCASION of the Sesquicentennial of Dickinson College, Carlisle, 9 portraits were presented, and 4 of this notable group were physicians: Benjamin Rush, M.D., surgeon general of the Continental Army, and signer of the Declaration of Independence; one of the founders of the College; gift of the class of 1908. Matthew Brown, M.D., class of 1794, president of Washington and Jefferson College; gift of Dr. Maitland Alexander, Pittsburgh. William Henry Denny, M.D., class of 1814; gift of Misses Matilda Denny Gibson and Elizabeth Genevieve Gibson of Chicago. Richard A. F. Penrose, M.D., class of 1848, professor of gynecology in the University of Pennsylvania Medical School; presented by his son, Spencer Penrose.

A WIDELY KNOWN PHILADELPHIA PHYSICIAN who a few days ago ended his own life left an unusual kind of note for his wife.

Read this, and then draw your own conclusions: "It has been impossible for me to collect even the small bills owing me and rather than possibly cause some other person to prefer to take the same way out I would prefer that you make no attempt to collect my overdue professional accounts."

Quite remarkable, indeed, that a man sorely pressed for money could on the brink of death have so great consideration for others who may possibly be in a similar position.

But that kindly doctor's act does recall what was said many years ago: "Greater love hath no man than that he give his life for a friend."—*Philadelphia (Pa.) Inquirer*, Nov. 6, 1933.

THE WOMEN'S AUXILIARY of the Lankenau Hospital Research Institute for the Promotion of Cancer Research held a Conference on Research in Cancer (cooperating with the American Society for the Control of Cancer), Nov. 14, at the New Century Club, Philadelphia; Mrs. Alfred M. Gray presiding. The following was the program: Mrs. Robert G. Mead, New York City, "What Women Have Accomplished in Cancer and a Program for Further Results"; Dr. Clarence C. Little, managing director, American Society for the Control of Cancer, and director, Roscoe B. Jackson Memorial Laboratory, "Some Results of Recent Cancer Research as Guideposts for Present and Future Investigation"; Dr. Stanley P. Reimann, director, the Lankenau Hospital Research Institute, and associate professor, experimental pathology, University of Pennsylvania, "Specific Ways in Which Women Can Help in These Problems"; 12:45 p.m., luncheon; 1:45 p.m., visit to the Lankenau Hospital Research Institute, Corinthian Avenue and Poplar Street. Demonstration of cell growth by motion picture film.

THE FOLLOWING REQUESTS have recently been made: Presbyterian Hospital, Philadelphia, \$5000, will of Mrs. Edith B. Cunningham; and part of the residue of the estate to the American Oncological Hospital.

St. Luke's and Children's Homeopathic Hospital, Philadelphia, \$500, will of Mrs. Elizabeth K. Braun.

Episcopal Hospital, Philadelphia, \$2000, will of Miss Marianna B. Griffiths.

Memorial Hospital, Roxborough, \$2000; St. Luke's and Children's Homeopathic Hospital, \$2000; Northwestern Hospital, \$1000 (all of Philadelphia), will of John Henry Gallati.

Frankford Hospital, Philadelphia, \$2000; University of Pennsylvania, \$10,000 for cancer research, will of Mrs. Louise M. Holroyd.

Montgomery County Hospital, \$5000 for a bed in memory of Judge Miller; his medical library and cases and a trust fund of \$1500 to the Montgomery County Medical Society, will of Dr. William G. Miller, Norristown.

Chestnut Hill and Germantown Hospitals, \$5000 each; Methodist Hospital (all of Philadelphia), to share residuary estate, will of John Ervin Walt.

Lutheran Hospital, Germantown, Philadelphia, \$1000, will of Miss S. Elizabeth Stoever.

The Weekly Roster and Medical Digest, Oct. 28, 1933, published the following report submitted by Ralph B. Evans, Esq., Attorney for The Philadelphia County Medical Society:

Under the new schedule of rates filed by the Philadelphia Electric Company, effective March 2, 1933, a physician's office in a private house is included under the "retail light and power" rate, instead of under the "residence" rate as theretofore. Inasmuch as this change in classification results in an increase in rates for physicians who have their offices in their own homes, the Committee on Medical Economics was instructed by the Board of Directors to file a formal protest on behalf of the Society with the Public Service Commission. Accordingly, the Committee addressed a letter to the Chairman of the Public Service Commission protesting against this classification. The Committee, however, was advised by the Chairman of the Commission that it could not take cognizance of such a protest without the filing of a formal complaint, and the Committee thereupon consulted counsel for the Society.

Under the Public Service Company Law, where a complaint is filed before the effective date of a change in rates, the burden is upon the Public Service Company to justify the change, whereas if a complaint is filed after the rate becomes effective, the burden is upon the complainant. The Committee learned that a complaint had been filed by other parties affected prior to the effective date of the new rate and that the Public Service Commission had ruled that under these circumstances the burden was upon the Philadelphia Electric Company to justify the change. From this decision the Company appealed to the Dauphin County court, but the latter has not yet been decided.

Counsel for the Society have advised the Committee that if the decision of the Public Service Commission is sustained, the burden will be upon the Philadelphia Electric Company to justify the new schedule of rates, and that there will be a public hearing for that purpose at which the representatives of the Society will be entitled to be heard.

Under the circumstances, counsel advised that nothing further be done pending the decision of the Dauphin County court.

THE *Luzerne County Medical Society Bulletin*, November, 1933, calls attention in an editorial that the 1934 meeting of The Medical Society of the State of Pennsylvania will be held in Wilkes-Barre; that the Luzerne County Medical Society has not been host to the State Society since 1903; and that "this lapse of 31 years has not been entirely the result of abandonment by the parent organization, but has had its roots largely in the indifference of the child. During these years, Luzerne County has been noticeably isolated

from the State organization. Things have happened here, but contact with the State Society has been vicarious.

"Save for our representative in the House of Delegates of the American Medical Association, our active share in the administration of the affairs of the State Society for 20 years has been practically nil. A group of younger men 2 years ago determined this isolation should cease and decided that to break the bonds, Luzerne County should be host to an annual meeting. Whether there will develop a mutual benefit, only time will tell.

"During these 31 years, Luzerne County has built its own home well. Thanks to our fathers, we have our own property and County Society building paid for and maintained, with ample facilities for meetings and library work. The library itself, of nearly 10,000 volumes, housed in the Society's fire-proof building, was one of the charter members of the Medical Library Association. With an endowment fund at present ample for reasonable maintenance and expansion, through a paid part-time professional librarian, it offers to the membership and allied professions in Luzerne County, facilities for research and study that will prove to next fall's visitors we have not been dormant for 31 years.

"A lusty subdivision, the Hazleton Branch, has been formed and actively at work during these years..... It will be a pleasure to share with Hazleton the responsibility of entertaining our guests next fall.

"Our Woman's Auxiliary, young in years and spirit, but mature in a personnel experienced in the activity of women in club and community life, is now well established and ready to do its share.

"Wilkes-Barre city itself has not stood still. New and enlarged hotel accommodations should provide ample housing for our guests.

"For hospitality, we have felt that within recent years, Erie should have the palm. They made the best of their natural resources, an enormous fish fry and proximity to Canada; Allentown and their barbecue were not far behind; and for postprandial entertainment, Johnstown made a name. We have a long mark to shoot at, but have been long years arriving at the range. By now our eye should be good and hand steady, and by concerted effort, should make a bull's eye."

(We extend best wishes to the Luzerne County Medical Society for the preparations anticipated for the State Society meeting, and sincerely trust that all they hope for will be attained.—*Editor*.)

Book Review

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

MIGRAINE—Diagnosis and Treatment. Ray M. Bal-yeat, M.A., M.D., F.A.C.P., associate professor of medicine and lecturer on diseases due to allergy, University of Oklahoma Medical School; chief of the allergy clinic, University Hospital; consulting physician to St. Anthony's Hospital and to the State University Hospital. 242 pages. 26 illustrations, 5 of which are in color. Cloth, \$3.00. J. B. Lippincott Co., Philadelphia, London, and Montreal.

The book presents the relationship of allergy to migraine. A brief history of migraine is given and a discussion of its etiology and predisposing factors. The allergy case is based on the idea of sensitiveness to foods and a resulting localized edema of brain. A group of 64 case records completes the book. The records illustrate various features of the problem.

Many links in the chain of evidence pointing to an allergic basis for the condition are missing, which shows that there is much to be learned in this field. There is much suggestive material in the book and yet some of the above deficiencies in knowledge make it an interesting approach, but not a completely convincing exposition.

Lest we forget Dextri-Maltose
the carbohydrate
of choice for over twenty years—
never advertised to the public

No. 1 Maltose 51% Dextrins 42% NaCl 2% H₂O 5%.

No. 2 Maltose 52% Dextrins 43% H₂O 5%.

No. 3 Maltose 51% Dextrins 41% KCO₂ 3% H₂O 5%

"The dextrin-maltose preparations possess certain advantages. When they are added to cow's milk mixtures, we have a combination of three forms of carbohydrates, lactose, dextrin and maltose, all having different reactions in the intestinal tract and different absorption rates. Because of the relatively slower conversion of dextrins to maltose and then to dextrose, fermentative processes are less likely to develop. Those preparations containing relatively more maltose are more laxative than those containing a higher percentage of dextrin (unless alkali salts such as potassium salts are added). It is common experience clinically that larger amounts of dextrin-maltose preparations may be fed as compared with the simple sugars. Obviously, when there is a lessened sugar tolerance such as occurs in many digestive disturbances, dextrin-maltose compounds may be used to advantage." (Queries and Minor Notes, J. A. M. A., 88:266)

At the annual meeting of the British Empire Cancer Campaign, Dr. Thomas Lumsden, of the London Hospital, reported "encouraging results," in the treatment of 25 human cases of cancer with anticancer serum.

Twenty-five persons with cancer volunteered to undergo the serum treatment. These volunteers were suffering from cancers which had recurred after the original growths had been treated by surgery or radium, and whose conditions had been pronounced as hopeless by physicians. The serum was injected into the main mass of the cancer or into the artery leading to the cancer. Dr. Lumsden reports that the results in these patients were so encouraging as to justify "intensive pursuit of the method," although he considers the work still in the experimental stage.

To quote *Science News Letter*: "The serum not only cured spontaneous cancers in mice but prevented the recurrence of such cancers in 75 per cent of the animals. Some of these mice are now living, a year after the injection of the antiserum. The fact that one year of life for mice corresponds roughly to 30 years of life for man gives an idea of the effectiveness of this method of treatment. Five years of freedom from the disease is considered the criterion for cure of cancer in man."

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NORMAL AND PATHOLOGIC DEVELOPMENT OF THE SINUSES*

JOHN J. SHEA, M.D., MEMPHIS, TENN.

It gives me pleasure to present for your consideration a clinical study of the development of the para-nasal sinuses. This work was done in collaboration with Dr. E. C. Mitchell, professor of pediatrics in the Department of Medicine of the University of Tennessee.

Our observations are purely clinical, based upon accepted embryologic studies of two of your fellow members, Warren Davis and J. Parsons Schaeffer. In the demonstration, we will use liberally of their findings and wish to take this opportunity of thanking them for the knowledge we have gained from studying their masterful works.

We have tried to formulate certain obvious facts and apply them in our diagnosis and treatment of sinusitis. Some of the facts, that we now consider as truths in the present state of the art of medicine, will suffer with future developments. The application of these principles has afforded us a common working basis in the care of our patients.

Davis, in 1914, presented his studies on the embryology and development of the nasal accessory sinuses in man and the following is a brief extract from his work.

EMBRYOLOGIC CONSIDERATIONS

During the third week of embryonal life there is evidence of the beginning development of the nasal areas as shown by increasing thickness of the ectoderm on the anterolateral portions of the forebrain. At the end of the third week, or during the fourth week, the nasal area appears as a depression which is brought about by the increased thickness of the surrounding mesenchyme. The primitive nasal capsule develops as a part of the primordial cranium. In the second month the nasal capsule becomes

clearly differentiated from other mesoderm and shows beginning cartilaginous development. Schaeffer records that the concha nasalis inferior appears in embryos of 38 to 40 days as a bulging of the inferior portion of the lateral nasal wall immediately superior to the portion from which the palatal processes develop. From the fortieth to the forty-third day the ethmoidal fold appears superior and slightly dorsal to the fold representing the concha inferior, and from this ethmoidal fold the ethmoidal conchæ are developed as the nasal cavity increases in its supero-inferior diameter. In the 60-day embryo the lateral nasal wall shows two distinct folds, the lower being the concha nasalis inferior and the superior one the ethmoidal fold, which is beginning to assume the form of the concha nasalis media. In its posterosuperior portion, the ethmoidal fold shows a further differentiation, indicating the early formation of the concha superior. The conchæ, in their earlier stages of development, do not contain cartilage, but are folds of mesenchyme covered by nasal epithelium. From the posterior portion of the agger nasi there is seen in the 65-day embryo a ridge of mesenchyme extending in a postero-inferior direction along the superior curved border of the concha inferior. This ridge, which has its free edge directed posteriosuperiorly and slightly medially, is the early processus uncinatus, in which there soon appears a thickening or condensation of the mesoderm in its central portion, followed by transformation into cartilage. Just inferior to the attachment of the middle portion of the concha media, the early bulla ethmoidalis develops from the lateral ethmoidal mass as one of its secondary folds. Between the free antero-inferior surface of the bulla and the posterosuperior surface of the processus uncinatus is a narrow interval, the primitive hiatus semilunaris, which is the opening or means of

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

communication between the meatus medius and the infundibulum ethmoidale, the infundibulum developing as the gutterlike channel lateral to the processus uncinatus. The number of ethmoidal conchæ into which the lateral ethmoidal mass becomes differentiated varies from three to five. The majority of fetuses examined had three ethmoidal conchæ—four were not uncommonly present; but only on one side of one specimen were five demonstrable. All ethmoidal cells, the frontal and maxillary sinuses, have their origin from preformed grooves or furrows between the folds which develop on the lateral nasal wall. The meatus nasi medius soon becomes the most complex portion of the nasal cavity, and developing from it and extending into the surrounding areas are extensive processes of pneumatization which are termed the cellulæ ethmoidales anterior, the sinus maxillaris, and the sinus frontalis.

CELLULÆ ETHMOIDALES

All ethmoidal cells having their ostia inferior to the attachment of the concha nasalis media belong to the anterior group; those having their ostia superior to the concha media belong to the posterior group. This classification holds good regardless of how far the more distant portions of any irregularly developed cells of either group may invade the region ordinarily occupied by cells of the other group. Seydel observed that an ethmoid cell, having its origin from any given meatus, did not communicate with any cell having its origin from any other meatus. Zuckerkandl took exception to this statement, but certainly every specimen in this series supports Seydel's view.

DEVELOPMENT OF THE CELLULÆ ETHMOIDALES

The cellulæ ethmoidales develop as invaginations of the nasal mucosa, extending into the lateral masses of the ethmoid from the primitive grooves or furrows in the lateral nasal wall. These invaginations, representing the primitive ethmoidal cells, appear in the fourth fetal month as cylindric extensions of the mucosa, in which the epithelial surfaces are in contact. As the diameters of the invaginations increase there gradually develop lumina within the cylindric processes, which, by the sixth fetal month, usually show distinct cell formation.

CELLULÆ ETHMOIDALES ANTERIOR

Primitive cells of the anterior ethmoidal group develop earlier and more rapidly than those belonging to the posterior group. In the anterior group the bulla cells are usually the first to be distinctly demonstrable. The manner in

which the processus uncinatus is attached to the agger nasi, its relations to the bulla ethmoidalis, and the character of the attachment of the anterior portion of the concha media exert the greatest influence upon the proportion between the number and size of the cellulæ frontales and the cellulæ infundibulares. If the processus uncinatus is attached to the posterolateral portion of the agger nasi and the anterosuperior attachment of the concha media is high up on the lateral nasal wall, then the cellulæ frontales are apt to be well developed. If the anterior attachment of the processus uncinatus is more medial in position and the anterosuperior attachment of the concha media is situated lower on the lateral nasal wall, then the recess is small, the cellulæ frontales are apt to be deficient in development, and there is usually a corresponding increase in both the number and the extent of development of the cellulæ infundibulares.

CELLULÆ ETHMOIDALES POSTERIOR

The most posterior ethmoidal cell frequently develops dorsally until a portion of it lies superior to the ventral portion of the sinus sphenoidalis, but in no case was there a communication found between a posterior ethmoidal cell and the sphenoidal sinus.

SINUS FRONTALIS

A sinus frontalis may develop as an anterosuperior extension of a cell originating from either of these two recesses, as a direct extension of the infundibulum ethmoidale, as a direct extension of a recessus conchalis in which no frontal cells have developed, or, in rare instances, as an extension from a cell originating in the suprabulla furrow. from whichever of these sources a frontal sinus may have its origin, the process of pneumatization gradually extends from that portion of the anterior ethmoidal area toward and into the inferior portion of the frontal bone. The sinus, surrounded as it is by a thin lamina of compact bone, then advances toward the ascending portion of the frontal bone, advancing as the cancellous bone is resorbed. This rate of resorption, in an average case, is such that the sinus begins its ascent into the vertical portion of the bone during the second year, and in the third year is 3.8 mm. above the level of the nasion.

SINUS MAXILLARIS

This sinus maxillaris is the most constant of the nasal accessory sinuses and is seldom absent. Reschrciter mentions reports of four cases in which a sinus maxillaris was absent. In embryos 85 days old there is a lateral outpouch-

ing of mucosa, demonstrable in the inferolateral portion of the wall of the infundibulum ethmoidale, slightly anterior to its midpoint anteroposteriorly. This is the primitive sinus maxillaris, which gradually develops as an oblong recess, extending first into the lateral nasal capsule, after the absorption of which it continues its advance and development into the maxilla. The point of primary lateral pouching persists as the ostium maxillare. As the body of the maxilla increases in size there is a corresponding increase in the extent of the pneumatization.

SINUS SPHENOIDALIS

The sinus sphenoidalis differs in its early development from the other accessory sinuses in that the primitive sinus does not have its origin from one of the furrows situated on the lateral nasal wall, but develops as an invagination extending from the posterosuperior portion of the recessus sphenio-ethmoidalis. The site of this primitive invagination persists as the ostium sphenoidale. Embryos of 85 to 100 days show the development into the nasal capsule more distinctly, the advancement of the pouching process being most frequent in a postero-inferior and slightly lateral direction (Davis).

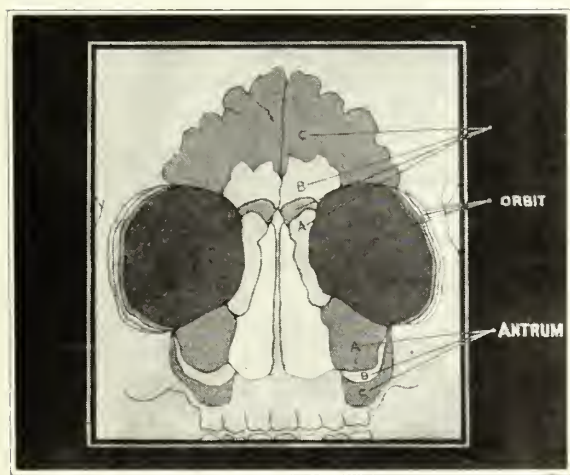


Fig. 1. Composite drawing of 100 roentgenograms: (a) Infancy; (b) puberty; (c) extremes of adult development.

SUMMARY

The ethmoid cells are present at birth. They develop by a process of pneumatization and capsulation until puberty is well established and reflect in their growth the influences of the infections they have suffered. The maxillary sinus pneumatizes as the superior maxilla grows. The frontal sinus is formed by the migration of an anterior ethmoid cell into the frontal bone and as soon as the cell enters the frontal bone it becomes the frontal sinus. The sphenoid sinus at

birth is a cavity situated in front of the sphenoid bone into which it migrates, so as to be completely encapsulated by the bone at the age of four. At birth and during the early years of life the ethmoid cells are sharply divided into an anterior group and a posterior group. The sphenio-ethmoid labyrinth will assume the size and shape that its component bones will allow and the presence or shape of the frontal sinus is governed by the migration of the anterior ethmoid cell. The growth of the sphenio-ethmoid labyrinth should be proportionately pneumatization and capsulation.

Roentgenograms of 100 so-called normals were made in the Law position and from these were selected an average normal for each year up to and including 16 years. The extreme degree of pneumatization was also recorded and from this study we made a chart.

Wittmack, of the University of Jena, contends that the persistent infantile mastoid is due to the arrest of pneumatization by infections of the mastoid bone in early childhood. The prototype of persistent infantile mastoid is seen in the persistent infantile sinuses.

One severe or many mild infections will arrest the growth of the sinuses. The infection if limited to the anterior ethmoid cells will influence these cells and possibly prevent the migration necessary for the development of the frontal sinuses. The maxillary sinuses may be involved alone.

In the persistent infantile sphenio-ethmoid labyrinth, the pneumatization is subnormal and the capsule hypertrophied, as shown by the roentgenogram. The characteristic persistent infantile sphenio-ethmoid labyrinth in the adult has few anterior cells and these are small with hard, thick walls, which do not migrate sufficiently to form a frontal sinus, or if they do form a frontal sinus, it is only rudimentary. The posterior cells are likewise few with hard thick walls, but are larger than the average posterior cell, though their aggregate volume is less. The sphenoid sinus is small and its walls are thick and firm. The membrane lining these cells is thin and not capable of normal secretory powers. Atypically placed cells are very common.

When first seen in the adult, persistent infantile sinuses may give the appearance of the so-called atrophic rhinitis, because the turbinates are small and the discharge chronic. The lack of sufficient moisture more readily dries the discharge into scabs and crusts. The roentgenogram will tell the story. Here will be found a skull with absent or rudimentary frontal sinuses, small ethmoids with thick walls, and small sphenoid sinuses with heavy walls and small antra.

Nasal obstructions, the results of early deformity of the septum, are capable of blocking sufficiently to limit the migration of the anterior ethmoid cells. When the infection is acute, the roentgenogram will show the healthier group of sinuses to be cloudy, because they are assisting the infection, whereas, a roentgenogram made during convalescence will show cloudiness in the arrested sinus, after the normal has cleared.

The clinical course is toward chronicity and even though operated on, the healing is slow. This is very notable if on one side the sphenoid is of average size and on the other, rudimentary. The normal sphenoid will follow the natural convalescence; the rudimentary sphenoid will not heal readily and requires long and persistent care.

The treatment in the adult is, as a rule, surgical and requires prolonged and careful post-operative care. Of course the best treatment would be the prevention of the persistent infantile sinus by early recognition in the infant and the institution of the necessary steps to cure or arrest these infections in early life.

HYPER-PNEUMATIZATION

Through the influence of factors unknown to us pneumatization may extend beyond the normal limiting capsule of the sinuses and produce a pathologic condition the opposite of the persistent infantile sinus. This cystic change is met with more frequently in the ethmoid group, but it is present at times in all the other sinuses. If the hyper-pneumatization occurs after the sinuses have reached the age of maturity, the cystic change should be considered a degeneration. The extension into the supra-orbital position of a highly pneumatized anterior ethmoid cell begets a headache and any surgery in such a case must include a thorough ventilation of these supra-orbital ethmoid cells. Cystic degeneration may be followed in some patients and the early recognition is of diagnostic value. Cystic degeneration of a posterior ethmoid cell endangers the optic nerve and in one of the earliest cases reported by Ellett of relief of blindness of sinus origin, was that of a distinct cyst of a posterior ethmoid cell. This cystic change likewise occurs in agger nasi cells, uncinate cells, or the middle turbinate. In these latter locations, the hyper-pneumatization will block the nasal passages. The maxillary sinuses have pneumatized under the floor of the nose and the sphenoidal sinus has extended into the wings of the sphenoid bone and into its pterygoid processes. A cyst of the cristagalli was encountered, but no attempt was made surgically to drain it.

SPHENOID SINUS

The sphenoid sinus is important in children. The sinus forms in pre-bone tissue and migrates back into the body of the sphenoid bone, so that by the fourth year it is encapsulated in bone. This sinus often develops to maturity by the tenth year and as a rule is the first sinus to reach maximum development; because of this it must be considered as a positive factor in the headaches of childhood. A clinical observation made by us is that the pupils in children dilate during an acute infection of the sphenoid. In a personal communication with Vail, he advised that the phenomenon can be explained by a reflex through the nerves in contact with the sphenoid. Hyper-pneumatization of the sphenoid is common and at times accounts for the inability surgically to drain its cavity. Six instances have been encountered in which the cavity of the sphenoid was obliterated by chronic suppuration.

HEREDITY

The child is the fruit of the family tree and inherits a tendency to sinusitis. In our experience, a child develops the same shaped sinuses possessed by the ancestor whom it resembles in facial appearances. This knowledge may be utilized in determining the state of development of a clinical case. It is our practice, when in doubt as to the arrest of development of a child's sinuses, to ray the sinuses of the parent or grandparent whom the child resembles. The application of the knowledge thus obtained aids in the formation of our opinion and the selection of treatment.

Two families are presented to demonstrate these deductions:

J. S., age 4, was found to have sinusitis. A roentgenologic study revealed an infantile ethmoidal shadow. The child resembled her mother and a roentgenogram made of the mother showed peculiar type of frontal sinuses. The child was treated and spent the winter in Florida. Her sinuses took on their natural development and the picture of her sinuses taken at age 12 presents a marked resemblance to those of her mother.

The second family was composed of the father, who was a sinus patient with a persistent infantile type of sinuses; one son and a daughter resemble him in facial appearance and have the same type of sinuses and are the victims of sinus disease. The mother and another son, who resembles her in facial appearance, have similar shaped sinuses and enjoy a freedom from sinus infections.

INFLUENCE OF THE DEVELOPMENT OF THE ANTRUM ON THE ERUPTION OF THE UPPER TEETH

At birth the antrum is smaller than the tooth bud of a deciduous molar, but is usually a cavity,

though at times it remains filled with the epithelial cells. As the superior maxilla grows, the antrum pneumatizes and by a process of thinning of its walls continues to enlarge until death. The site of the out pouching of the mucosa is forward and begins below the base of the nasal process. Infections with complicating otitis in infants will produce orbital swelling.

The buds of the permanent upper molars are stacked in the cancellous bone of the posterior wall of the antrum. The greatest growth of the maxillary sinus is backward and downward; and in so growing it displaces this cancellous tissue in a rotary direction so as to bring the molars into the alveolar process. An arrest of development of the antrum prevents the eruption of the second and third molar. The floor of the antrum descends as it develops. In the infant it is above the level of the floor of the nose, by puberty it is even; and in the adult it is lower and at times pneumatizes under the nasal cavity. Many of the orthodontia cases are the result of faulty sinus development. Though the failure of the proper eruption of the front teeth cannot be attributed to the antral development as much as to the growth of the bone itself. Every case of malocclusion can be helped by attention to the sinuses and likewise orthodontia assistance aids in the development of the antra. The phenomenon of one or more teeth within the antrum should be considered as one of the freaks of development or the result of an early accident. Cysts of the upper cuspid have a tendency to migrate towards and invade the antrum.

FRONTAL SINUS

The frontal sinus is formed by the migration of an ethmoid cell into the frontal bone during the second year. This pneumatization can be

delayed until the third year, but further delay is detrimental. We have observed the reestablishment of a delayed pneumatization as late as the seventh year, provided that the original process had previously begun, even though arrested for years. The frontal sinus is the best criterion in the study of sinus development. At puberty its diameters are approximately equal and its culdesac appearance is lost by the formation of peripheral septa. Extreme degrees of pneumatization are not infrequent, but are of slight clinical significance.

The frontal sinus reflects in its growth the infections and insults it has experienced. One severe or multiple mild infection will arrest its development and because of the ease with which its growth can be followed, we have utilized this observation in our study.

Radical surgery arrests the development, but in one case of osteomyelitis, in which it was necessary to destroy radically the anterior walls of both frontal sinuses and to remove the outer table past the site of the anterior fontanel, the frontal sinuses reformed and when last seen were functioning. Osteoma of the adult frontal sinus is not rare and though small tends to cause vertigo.

CONCLUSIONS

Nature in her wonderful program has designed a pattern for the development of the sinuses, which may be disturbed by infections or insults, but which may be corrected and reestablished.

In as much as the process of development is the result of pneumatization and capsulation, the patency of the ostii of the sinuses must be maintained.

1018 Madison Ave.

MANAGEMENT OF ACUTE UPPER RESPIRATORY INFECTIONS*†

FRANCIS W. DAVISON, M.D., DANVILLE, PA.

My purpose in presenting this paper is to endeavor to explain the clinically observed phenomena in cases of acute upper respiratory infections in terms of pathologic physiology. Any of our efforts to correct the disease processes may be made more rational by an analysis of the normal defense mechanisms. If we compare our therapeutic measures with those natural defenses ordinarily adequate in control-

ling this type of inflammation we will not often be wrong. This type of thinking may help us to reject or accept new drugs and new measures constantly being proposed for clinical use and at the same time give us a sense of confidence and security in what we recommend.

To simplify discussion, acute upper respiratory infections may be divided into two classes. In the first group is placed the simple coryzas, running a 7- to 10-day course, characterized by nasal congestion, mucoid or watery discharge, and little or no systemic toxemia. Regardless of the type of treatment, these run their course and

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

† From the Department of Otolaryngology, Geisinger Memorial Hospital, Danville, Pa.

subside without complications. There has been no uniformity of opinion whether this entity is bacterial in origin, because of a filtrable virus or merely an expression of disordered metabolism. Shibley, Mills, and Dochez in their studies of the etiology of the common cold conclude that the contagious cold in human beings is caused by an invisible, nonculturable, filtrable agent which in all likelihood belongs to the group of so-called submicroscopic viruses. They report that in apes one of the effects of infection with the filtrable agent is the stimulation into greatly increased activity of any potential pathogen that happens to be present in the upper respiratory flora and conclude that a most important significance of viruses of this type is their capacity to incite activity on the part of the more dangerous pathogenic organisms that infest the upper respiratory tract.

In the second group, is included those inflammatory reactions of the respiratory mucous membrane demonstrably bacterial in origin, usually caused by some type of streptococcus, producing besides local discomfort, considerable systemic reaction. Many of the principles of treatment are the same whether the individual has acute purulent sinusitis, mastoiditis, peritonsillar abscess, ulcerative laryngitis or any of their complications.

Let us consider some of the more detailed changes occurring in the tissues as the result of acute inflammation. The most obvious of these is active hyperemia. The arteries and capillaries are so dilated that the blood flow is more rapid. We should consider this change as one of the fundamental defense mechanisms. In answer to the question—How does Nature cure acute respiratory infections?—we may say, first by supplying more than the usual amount of blood to the inflamed part. Therefore, our local measures should be directed toward the encouragement of increased blood flow and the lessening of edema if it reaches a degree sufficient to strangle circulation. The other obvious consideration is that the blood must contain those factors both cellular and humoral which destroy bacteria. Some of the measures at our disposal are the application of cold, heat, friction, massage, and chemical agents. Any therapeutic value of silver nitrate is probably due to its counterirritant action. The application of moderate heat is one of the best means of producing active hyperemia. Exudation is another beneficial response to infection. Exudates contain antitoxic, antibacterial substances, and leukocytes. They also help by diluting and flushing out toxic products. The character and composition of inflammatory exudates vary widely in the

same anatomic locations. It has been my observation that the character of the exudate is more often an index of the resistance of the individual than of the type of the infecting organism. An outstanding example is the thick, tough, grayish or hemorrhagic membranous exudate commonly seen on mucous membrane in those fatal cases in which the total white count has been extremely low.

An individual might have sinusitis, otitis media, laryngitis, tonsillitis, or any combination of these. With any of these conditions he may be incapacitated not so much by local discomfort as by the manifestations of systemic toxemia. Too frequently we are content to make local applications to the inflamed area and permit the individual to attempt to carry on his normal activity. The intranasal application of antiseptics is a futile procedure because the organisms causing the trouble are buried in the tissues. The organisms found in the secretions are being washed away and are doing no harm. As further evidence of the fact that local application of antiseptics is ineffectual is the fact that it requires 15 minutes' contact with 1:1500 bichloride of mercury or 1:200 lysol or phenol to kill streptococci. In the presence of an acute infection the trauma produced by nasal treatments has in my experience been more often injurious than beneficial, resulting in more swelling than was originally present. The same thing may be said for the use of any solution in the nose which the patient appreciates as causing pain or irritation. In this respect most of the commercial adrenalin and ephedrine preparations are offenders. The use of adrenalin alone is to be avoided because of the marked secondary dilatation of the blood vessels which produces further engorgement of the mucous membranes after the initial constricting effect has worn off. In the treatment of acute rhino-sinusitis, Beck advises as little intranasal manipulation as possible. He feels that the olive-tipped suction is not to be recommended because of the possibility of producing swelling of the mucous membrane, thus obstructing the outlet of the sinuses.

We have found 0.5 per cent ephedrine in physiologic salt solution, as recommended by Proetz, to be the most satisfactory means of maintaining drainage during attacks of acute sinusitis. The aqueous dilution is irritating, sometimes sufficiently so to produce discomfort, either immediately or deferred. Strong solutions are unnecessary to effect the desired contraction and in susceptible individuals may result in restlessness and insomnia. The solution is best used by flooding the nose while the patient is in the dorsally recumbent position with the head hyper-

extended over the edge of a bed. During the most acute phase it is sometimes necessary to use this solution as often as every 2 hours. It is advisable to have the patient maintain the recumbent position for at least 4 minutes. Further advise against blowing the nose for 4 minutes longer in order to keep the solution in contact with the middle turbinate region as long as is consistent with comfort. Failure of result is usually because the patient has not accurately followed these instructions. Common errors are not having the head so hyperextended that the chin is vertical above the ears and not using sufficient quantity of solution. Five to 10 c.c. are accommodated by most noses. If the nose is tightly blocked by swelling, a small amount may be made to permeate the passages by forced inspiratory effort. Then within 10 minutes a larger and more effective quantity can be instilled. By this method, pain can be controlled in nearly all the patients who have acute sinusitis. Those who have come under our care during the first week of their illness have recovered completely without complications and without operative intervention. There have been several deaths from cavernous sinus thrombosis and meningitis among the patients in whom the above type of treatment was not instituted early in the course of the disease.

Morphine and other powerful hypnotics should be used sparingly for patients who have acute sinusitis. Pain is the outstanding signal of impending complications. Its persistence should lead us to redouble our efforts to combat toxemia and maintain drainage. An individual with blunted sensibilities cannot adequately inform us of the progress of the disease. Almost invariably the patients having acute sinusitis with complications give a history of having received repeated doses of morphine for several days. Had adequate therapy been administered early in the disease both the complication and the morphine might have been unnecessary.

We have not found it necessary to resort to puncture and lavage and have seen 4 severe cases of cellulitis of the face following puncture of the antra for the purpose of lavage during an acute attack of sinusitis. Beck, in speaking of the treatment of acute sinusitis, advises against puncture under the inferior turbinate. He further strongly advises against the practice of intranasal surgery during the acute phase of the disease. Postoperative swelling usually causes more obstruction than that produced by the tissue which was removed and operative trauma devitalizes the remaining mucous membrane to

such an extent that the organisms readily invade it.

We are too prone to neglect the matter of constitutional treatment until the infection becomes severe or a complication supervenes. Suitable systemic treatment for the severe cases should be good therapy for the mild cases and tend to prevent them from becoming severe. I have been interested in trying to determine accurately the important factors in systemic treatment because many authors dismiss the whole subject with a brief sentence to the effect that general treatment should not be neglected. The fact that a patient recovers does not mean that the optimum conditions favoring his recovery were provided.

Let us consider some of the means of combating the systemic effects of infection. With every severe infection there is a lowering of the alkali reserve. It would seem reasonable, therefore, to correct the depletion. This can be most simply done by supplying sodium bicarbonate in dosage sufficient to render the urine alkaline. The various citrates are time honored, but inefficient because they must be converted to sodium bicarbonate before they are utilized. A simple method of determining whether or not acidosis exists is Sellard's bicarbonate test which is applicable in all forms of acidosis. It consists briefly in giving 5 grams of sodium bicarbonate dissolved in water by mouth every 2 hours until the urine voided before each dose becomes neutral or faintly alkaline to litmus paper. The normal individual can take 3 to 5 grams before the urine becomes alkaline. Tolerance of 40 to 50 grams is observed in more marked grades of acidosis which still do not lead to symptoms beyond dyspnea on exertion. *Severe acidosis may occur with little or no acetoneuria.* Acidosis is one of the results of infection which produces symptoms all its own. These symptoms are increased depth and frequency of respiration, fever, tachycardia, cherry red lips, restlessness, and ketonuria. These are the results of acidosis and not alone due to toxemia the result of infection because occasionally we see them following tonsillectomy, both local and general, when they are promptly relieved by either orange juice by mouth or glucose intravenously.

A frequently neglected factor is sufficient quantity of fluid for the purpose of diluting toxins and stimulating the excretory organs. In the presence of fever and its accompanying increased respiratory exchange the fluid loss by means of the lungs and skin is amazing. In an individual with an acute infection fever is present, respiratory exchange is greatly increased,

and loss of fluids through the skin and lungs may be much greater than normal. Thus, unless an adequate fluid intake is maintained, the supply of water necessary for kidney metabolism may be deficient. The normal average specific gravity of urine is 1.017 to 1.020. Therefore, it is safe to conclude that if fluids are insufficient to keep the specific gravity below 1.020 an increased metabolic load is put upon the kidneys. I prefer to see the specific gravity of the urine of a toxic patient below 1.015, indicating that sufficient fluid has been received to compensate for the abnormally rapid loss of water vapor by lungs and skin and still leave sufficient reserve to carry on the metabolic work of the kidney. We should not forget that we may be dealing with a case of nephritis in which the specific gravity could not be raised above 1.015 even though the fluid intake were deficient. Most adults with an acute infection can tolerate with advantage between 3000 and 4000 c. c. intake every 24 hours.

The gastro-intestinal tract is an excretory organ capable of relieving the kidneys of considerable burden if kept active. Hence, a saline laxative is almost always indicated. Saline cathartics differ from the vegetable purgatives in not inducing irritation of the intestines, unless they are given in very large quantities. Their characteristic effect is not irritation but retarded absorption. If the patient is weak and sick enough to be confined continuously to bed a daily enema is usually indicated.

With many acute infections there is at least a transient bacteremia which can be demonstrated by blood cultures. Rockwell found positive streptococcic blood cultures in 50 per cent of a series of cases consisting of acute and severe colds, grippe, and so-called intestinal grippe. Overexhaustion of any organ favors the development of a metastatic focus in it.

Bed affords physiologic rest to all the organs and tissues. A warm room is important because antibody reactions take place more rapidly with increased temperature and because warmth favors more rapid circulation through peripheral vessels. There is one exception in which cool air is of extreme importance. The laryngeal edema secondary to acute infectious laryngotracheitis must be controlled if strangulation is to be avoided. Cool air of a motor-driven oxygen tent does this admirably. The oxygen tent is also a valuable means of controlling the dangerous subglottic edema which frequently follows bronchoscopy in children under age 2.

Fever is one of the natural responses if bacterial products are circulating in the blood. Therefore, we should not try to decrease it except by decreasing the toxemia. A rise of tem-

perature is not always a reliable index of the severity of an infection. With a given amount of infection and resulting toxemia, the temperature will rise higher in a young vigorous individual than it will in some one who is debilitated.

Tissue destruction and depletion is accelerated by infection and fever. Repair during illness should try to keep pace with destruction. A carbohydrate diet is the best means of furnishing easy energy. A basic amount of protein is all that is required. Much fat in the diet tends to produce acidosis; therefore, as little as possible is advisable. In the presence of fever the caloric requirements are considerably increased. If the fluid intake is adequate the patient's appetite is a good guide to the amount of food required. Food ingested does not mean food assimilated. Often the theoretic caloric requirement cannot be fulfilled because the function of the digestive tract is impaired by toxemia. In the presence of fever, milk is often badly tolerated, producing distention and vomiting because of its high fat and protein content. Most of the very sick youngsters have done well on a combination of orange juice, saline, and glucose. A catheter inserted through the nose into the esophagus is an indispensable means of administering fluid to youngsters and refractory adults who otherwise would not take a sufficient quantity. An adequate supply of mineral salts is necessary because these salts are essential for normal cell physiology. Orange juice is a palatable source of minerals. In this connection, the perfused frog heart will continue to beat for hours if the proper balance between sodium, potassium, and calcium be maintained in the solution. If an infection is of any considerable duration the vitamin intake must be kept adequate. As a means of supplying vitamins A and D, a good grade of cod or halibut liver oil has been the standard preparation. Marriott feels that Oscodal and Cod Liv-X are acceptable substitutes.

In our experience streptococcic antitoxic sera have not been efficient. Considering the many strains of streptococci it would be surprising if the commercial sera available were potent for each strain. In evaluating the effects of sera, it should not be forgotten that a therapeutic leukocytosis may be rapidly stimulated by intravenous injection of horse serum usually accompanied by clinical improvement. Therefore this nonspecific effect may account for some of the reported improvements following the use of various anti-streptococcic sera. We have used typhoid vaccine and milk injections with beneficial effect and attribute the improvement to the resulting

leukocytosis and fever. We have found transfusion of whole blood to be a most dependable means of combating severe streptococcic infections provided it is not delayed until the patient is moribund. The chief benefit of blood transfusions in the treatment of acute infections is derived not from the new cellular elements both red and white, but from the complement of the serum. This factor has been shown to be deficient in individuals having poor resistance to the infection they are harboring. If bacteria are reproducing in the blood it is evident that the blood has very few immune bodies to that particular strain of organism.

The importance of the neutrophilic leukocyte in combating streptococcic infections hardly needs amplification. We are accustomed to associate a good neutrophilic response to an acute infection with a favorable prognosis. A daily blood count, particularly of the Schilling type, is a good index of resistance and should be part of the routine in all severe cases.

Salicylates and other coal tar drugs are time honored and seemingly efficient in the treatment of streptococcic infections. It has been experimentally shown that this type of drug produces a leukocytosis, so this may be the mechanism of their therapeutic efficiency.

SUMMARY

1. In the management of acute upper respiratory infections, systemic treatment is of major importance.

2. Intranasal manipulation should be reduced to a minimum.

3. One-half per cent ephedrine sulphate in physiologic saline solution is an efficient means of maintaining drainage from the sinuses.

4. In cases of acute sinusitis, morphine should be used sparingly because it masks the onset of complications.

5. Bacteremia and septicemia are frequently associated with acute respiratory infections.

6. Blood transfusion is an effective means of combating streptococcic septicemia.

7. Urinary specific gravity is a good index of adequate fluid intake.

Geisinger Memorial Hospital.

ABSTRACT OF DISCUSSION

T. CARROLL DAVIS (Philadelphia): Too often we give the major portion of our attention to surgery, at the expense of medical treatment.

In the management of upper respiratory infections, rough nasal treatment defeats the very object of our endeavors, and instead of lending aid, prolongs the condition. Morphine and atropine lock up the secretions and prevent the natural protective forces of the body from exerting their beneficial influence.

Dr. Davison has spoken of the use of ephedrine sulphate, 0.5 per cent, in normal saline solution, as recommended by Proetz. He does not recommend the complete Proetz treatment with suction, but only that the solution be used while the patient is in the position suggested by Proetz; the patient lying on his back, head hanging backwards, so that the ear and chin are in a vertical line. Proetz requires that this position be held at least 4 minutes.

Proetz also warns against the use of his displacement treatment, which would add to Dr. Davison's idea the use of 5 pounds of negative pressure or suction. He says: "It is advisable to observe certain precautions. Patients with high blood pressure should not be placed in the position required nor be subjected to the negative pressure in the nose. I have also avoided any irrigation whatever in the early stages of acute nasal disease, both on account of the hyperemia, which is readily induced at such times, and because of the possibility of disseminating any infection which might otherwise remain localized."

I take it that Dr. Davison refrains from puncture and lavage of the antra for this latter reason, but has not seen bad results from the use of ephedrine in normal salt solution.

Would the danger of involving the ears through the route of the eustachian tube be increased by this instillation? Proetz defends the use of this displacement treatment after the acute stage as follows: "Some concern was felt at first in regard to the eustachian tube and the possibility of contaminating it with secretions from the nose. This proved to be groundless, however, as no solution has ever been found from roentgenograms to have penetrated the middle ear or even the tubes. The reason for this is obvious. The pharyngeal end of the tube is cartilaginous and is normally in a collapsed state. Even the patent osseous portion of the tube is relatively long and narrow, so that it is impossible for any air to escape from the middle ear when the vacuum is applied. As this is essential for the introduction of fluid, no penetration occurs. No case of infection of the middle ear as a result of this procedure has ever come to my notice."

Here then we have the use of ephedrine solution in acute conditions. If it is safe for use in the latter stages, the Proetz treatment has real value.

Dr. Davison's reference to alkalinization and fluid intake is very pertinent. I know a layman who had charge of a boarding school for native children in India during the epidemic of influenza in 1918. The nearest physician was unable to visit the school, but sent directions to use bicarbonate of soda with plenty of water, and also laxatives as needed. Nearly all the children were ill, but only one child died at home after its parents had insisted on removing it. That record is better than some of us had at the time in treating about 100 patients.

HERMAN B. COHEN (Philadelphia): An individual with a cold or an acute respiratory infection is similar to an individual with any other malady, in that we cannot lay down a plan of treatment that will work for all. Some start with laryngeal symptoms; others with nasal symptoms, and the treatment of necessity is different; it is the individual and not just another case. We should direct our efforts to helping the body go through the various stages of reaction to inflammation.

We can to a certain extent hasten these reactions by proper local treatment, such as heat in the form of warm saline irrigations of the nose, infra-red externally to the face and neck, mustard plasters, etc.

I disagree somewhat with the essayist in his statement that "intranasal antiseptic applications are futile proceedings and harmful." I find them very helpful and have never seen any untoward effects. Adrenalin is mentioned only to be condemned and is to be used only for operative purposes. Ephedrine, 0.5 per cent, in normal saline, used in the Proetz method, is very helpful only in the subacute and low grade chronic infections of the sinuses. Aqueous cocaine and weak ephedrine solutions rather than oily ones are more effective because of their ability to get in contact with the parts desired, and are helpful in the acute conditions used in the drop or spray form. Mild mass suction and topical or capillary suction, properly used, are of value—all for the purpose of drainage and ventilation. General medication will depend upon the stage of infection. The subject of fluids and alkaline treatment has been well covered by the essayist.

In acute sinusitis there are times when a dose of morphine is grateful. At the height of the acute stage, when the membranous lining is so swollen that the walls are touching, the ostium closed, the pain is intense. Here a dose of morphine and atropine is very much appreciated; but do not puncture the maxillary sinus at this time. The after pain is worse than before puncture. Wait 36 to 72 hours. Surgery in the acute stage is unthinkable.

The general treatment has been so well covered that I will close with 3 recommendations: First, small blood transfusions, especially for children; second, remember the individual and not a case is being treated; and finally, with the use of common sense there should be little trouble in the management.

GEORGE B. WOOD (Philadelphia): I wish to substantiate what Dr. Cohen has said about the use of morphine in upper respiratory infections in which there is pain. In the early stages of acute sinusitis, if there is intense pain, enough morphine to make the patient comfortable is not only justifiable but of great therapeutic value in keeping the patient quiet and giving the physical rest that is an essential part of treatment.

In acute infections in which there is severe inflammatory reaction, like orbital phlegmon a foreign protein shock is often of great value. One patient I recall had a threatened orbital abscess. The eyeball was fixed with marked proptosis and a temperature of 100 to 101° F. By a misunderstanding of orders this child was given as a protein shock about twice the ordinary dose of boiled milk. There was a severe reaction with a temperature going up to 105° F., but within 2 days the recovery was so rapid that we could hardly believe it possible. It had looked like an absolutely operative case in the beginning. The use of foreign protein in acute infections should be a very important addition to our therapeutic armamentarium.

ROBERT A. RIDPATH (Philadelphia): If we are dealing with upper respiratory infections we are not dealing with an entirely local condition but with a systemic condition, and the local manifestations in the mucous membrane of the upper respiratory tract are in a manner a picture of what is taking place in other parts of the body. In all these conditions, whether we use local remedies or not, we must treat the patient from a systemic standpoint.

One feature that Dr. Davison brought out, and also mentioned by Dr. Davis, is the alkalization of the patient. In all cases of acute infection there is a more or less disturbed condition of the whole system, and we should use alkalization to a decided extent, as well as

other treatment, to cure these patients as quickly as possible. Use whatever alkali you wish, but combine it with something that has a systemic effect. In all these acute infections, whether laryngeal conditions, or upper respiratory, two remedies are paramount. First, biniodide of mercury—not the protiodide—has a decided influence on the mucous membrane of the upper respiratory as well as the lower respiratory tract. In children the dose is 1/200 grain; adults, 1/40 grain, 3 times a day. Combine with urotropin small doses of 1 or 2 grains, and it will constitute an alternative for the mucous membrane, which will enhance the other remedies and increase their curative effect. Whenever there is an upper respiratory infection always deplete the mucous membrane by giving a purge. The local treatment you can follow according to your best judgment.

F. EARLE MAGEE (Oil City, Pa.): I have never done anything that has been more beneficial to the patient or gratifying to me as opening an acute maxillary sinus. Following Dr. Ridpath's suggestion last year, I found it very beneficial. A purge is required in these cases, and there is nothing quite as efficient as epsom salts. It is the one drug that depletes the brain and spinal cord at the same time. I quite agree with Dr. Wood as to giving morphine to these patients.

No less an authority than Dan Mackenzie, of England, said that nothing has proved so beneficial to the patient and creditable to the laryngologist as puncturing an acute suppurative antrum. Things we must do first are: Give these patients oil or salts, deplete them, order the patient to be put to bed, and treat them systemically, and you will have much less to do locally. If after 24 hours there is infection of the antrum, it should be opened. Pus should come out of an acute antrum the same as in other acute conditions in the body.

GEORGE W. MACKENZIE (Philadelphia): Hajek condemned local treatment of all kinds in acute infections of the upper respiratory tract, particularly if the nose was involved. If the nose cannot be treated mechanically it is possible by simple shrinking treatment to permit more air to the infected sinuses, and the atmosphere oxygen acts to decrease the virulence of the infecting microorganisms. Severe local treatment is out of order.

For the infected parts locally there is no antiseptic that will disinfect the mucous membrane. Fuchs pointed this out, and Wagner-Jauregg emphasized that it is impossible to sterilize a patient with syphilis, as the spirochetes are not destroyed by spirocheticides. All the drug does is to stimulate the production of antibodies.

SAMUEL R. SKILLERN (Philadelphia): The best procedure in treating an acute sinus infection is to get the patient immediately in bed; start medication with a dose of calomel to be followed in 4 to 6 hours by a saline purge; force alkaline fluids to the limit. Soda bicarbonate, by its stimulation of the acid-producing glands, is very apt to cause acidity—the thing we are trying to avoid. Many other alkalies do not stimulate the hydrochloric acid glands of the stomach. Citrous fruit juices, especially lemon and orange, well diluted with water, are very useful, as they alkalize as well as supply the necessary fluids. The systemic treatment is more important at this stage than the intranasal treatment. I agree with Dr. Magee that a filled maxillary sinus should be emptied. If you cannot empty it through the normal ostium, use the Lichtwitz needle and irrigate with hot normal saline and

soda. There may be some swelling of the mucosa of the antrum following needle puncture, but the installation of 0.5 per cent ephedrine in normal saline after irrigation will shrink the mucosa around the ostium, thus allowing aëration and drainage, and preventing the secondary closure of this opening.

There may be drainage without aëration, but there can be no complete aëration without drainage. The filling of the sinus with an exudate, be it serum or pus, may continue until the intra-sinus pressure is greater than the pressure of the swollen mucosa around the ostium. Should this occur, the exudate will force its way through the ostium, with drainage of the overflow into the nose. Thus there will be drainage without aëration; but, if we are to relieve this sinus infection, we must return the sinus to its normal state in the respiratory system by reëstablishing its function of warming, moistening, and filtering the inspired air by establishing the proper aëration.

DR. DAVISON (in closing):—Answering Dr. Davis' question, I do not use suction with ephedrine in saline in the treatment of acute conditions. Dr. Proetz's method of using suction is excellent in the treatment of chronic sinus infections.

In reply to Dr. Woods' statement that morphine is helpful, a patient must have sleep in order to recover. In most instances the pain of acute sinusitis can be controlled by the method described. If pain persists, morphine or other hypnotic is necessary.

Referring to Dr. Magee's statement in regard to antrum puncture during an attack of acute sinusitis, many experienced men do so but it is seldom necessary if the nasal passages and ostia are kept open by the method described. If this method is persistently used, puncture will seldom be necessary. My reason for not favoring routine puncture and lavage of acutely inflamed antra is that I have seen 4 severe cases of cellulitis of the face resulting from this practice.

TREATMENT OF ADVANCED CARCINOMA OF THE CERVIX*†

CHARLES A. BEHNEY, M.D., PHILADELPHIA

An enormous literature dealing with early and borderline carcinoma of the cervix, and the percentage of 5-year cures obtained by different technics, has appeared in the past 2 decades. Yet statistics from the best clinics rarely reveal cures of more than 25 per cent of the patients observed, regardless of the treatment employed. The remaining 75 per cent of these women who were considered hopeless when first seen or who died before the expiration of the 5-year period are almost completely ignored.

This attitude is not strange. In our zeal for increasing the percentage of cures we have been inclined to regard as failures any results short of complete eradication of the disease, and though the duration of life with carcinoma of the cervix is often greater than with some other common ailments, we sometimes permit our interest to wane if a complete cure is improbable. There has also been doubt as to the propriety of prolonging the life of an individual who is doomed to an often painful death, and measures for the relief of pain, except by opiates, have been regarded by many as useless if the expectancy of life is limited. As a result, women with advanced carcinoma of the cervix are frequently dismissed to their family physicians with vague instructions to "make them as comfortable as possible." The family of the patient is told that "everything that can be done has been done," and many of these women spend their remaining days under the influence of narcotics. Patients suffering from cancer are not as a rule depressed

as long as they are permitted to hope for relief. Can anything be more distressing than the realization that "nothing more can be done"? Is it then odd that these derelicts finally drift into any port which offers refuge from the troubled sea of torment and despair? Irregular practitioners flourish in nearly every community and it is to these that our patients often go in desperation after they have been abandoned by us. Indeed, cultists though untrained in scientific medicine, by means of simple surgical and hygienic measures, often give great comfort to their clients.

More than 85 per cent of the patients with carcinoma of the cervix, admitted to the Gynecologic Service of the Radiologic Department of the Philadelphia General Hospital, are advanced to the degree in which the attaining of 5-year cures is impossible. This so-called "hopeless" material offers abundant opportunities for the investigation of palliative measures, and the study of this aspect of the disease has for some time been one of our main objectives. Our experiences during the past 5 years have led us to agree with Jackson and Minot,¹ who say that much can still be accomplished when "nothing more is to be done."

An analysis of the necropsy records² of "166 of our patients who died of carcinoma of the cervix revealed that in only 7 of them (4 per cent) was the cause of death unrelated to the carcinoma. Eighty (48.2 per cent) died of extrapelvic causes related to the disease; and in 79, death was due directly to some local pelvic pathology." The extrapelvic causes included toxemia, cachexia, severe secondary anemia, bron-

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chopneumonia, and hypostatic pneumonia. These were regarded as secondary to the devitalizing effects of certain intrapelvic conditions notable among which are hemorrhage, infection, and uremia. The most frequent intrapelvic cause of death was uremia from ureteral obstruction which occurred 36 times. Fifteen patients died as the immediate result of sudden massive hemorrhages. The remaining intrapelvic causes included intestinal obstruction, peritonitis, and infectious processes, local or metastatic. It appeared, therefore, that if life is to be prolonged in these patients, infection, hemorrhage, and obstruction of the ureters or lower bowel must be prevented whenever possible. It is also interesting to note that although extrapelvic metastases were exhibited 86 times in 55 patients, in not a single instance could death be attributed exclusively to the secondary lesion.

INFECTIONS

The infectious nature of late carcinoma of the cervix has been demonstrated frequently. The commonest organisms identified have been, in the order of their frequency: Streptococci, Friedländer bacilli, diphtheroids, and staphylococci. It has also been shown that manipulation of the pelvic structures is frequently followed by activation of a quiescent infection and that curettage and application of radium in advanced carcinoma of the cervix may activate a dormant focus and cause early death from peritonitis or other infectious processes.

Infection may be attacked by mechanical, bacteriologic, and radiologic means. Purulent collections in the uterus or pelvis should always be drained. Vaccine therapy, probably because of the difficulty in isolating the pathogenic microorganisms, has proved disappointing. This problem may also explain the poor success which attended recent efforts of Strumia to prepare bacteriophage for patients in our clinic. Douches and topical applications of bactericidal substances are unsatisfactory because they disturb the affected structures and occasionally disseminate the infection which they are employed to eradicate. The time required to disinfect the lesion by these methods is also a decided disadvantage if treatment of the tumor is being withheld until the infection subsides. The antiseptic effect of high-voltage roentgen rays is well known in medicine and is widely utilized for commercial purposes. It has been demonstrated to be a most effectual and practical means of dealing with the infections complicating carcinoma of the cervix. This treatment not only affects the organisms but also retards the growth of the carcinoma and checks hemorrhage. If properly

administered, the primary lesion usually heals, toxic symptoms abate, and the patients are often restored to comfortable life for periods varying from two months to more than two years. It has also been demonstrated that metastases occur with greater frequency in patients who have not been irradiated than in those who have had irradiation. We, therefore, employ and recommend complete saturation with high-voltage roentgen rays as the first step in the treatment of carcinoma of the cervix. This preliminary irradiation is not infrequently followed by softening of the broad ligaments and diminution in the size of the tumor so that the lesion becomes suitable for radium irradiation.

HEMORRHAGE

The acute anemia from massive hemorrhage is best treated by tightly packing the crater and the vagina with sterile gauze and the application of a snug T-binder. This should be removed in 24 hours, the vagina and crater cleansed, and if the bleeding recurs, the packing must be replaced. The blood loss should be compensated by venoclysis of glucose in normal salt solution and rest secured with opiates and hypnotics to avoid fresh bleeding. As soon as donors can be procured, blood transfusions should be given.

The anemias resulting from the repeated loss of small quantities of blood can not be disregarded. Here a series of small transfusions are the greatest therapeutic aid. Medication directed toward replenishing the loss of iron and to stimulate the blood-forming organs will hasten the recovery of the blood picture. Because they do not disturb the digestive tract, we prefer to use hematronics which can be administered by intramuscular injection. Actinotherapy and heliotherapy have proved valuable accessories in the treatment of these secondary anemias. Deep roentgen-ray therapy checks bleeding and should be instituted whenever the condition of the blood permits, that is to say, if the hemoglobin is 40 per cent of normal or over and there are 2,000,000 or more erythrocytes per cubic millimeter of blood. If less, it is better to defer the irradiation until the blood has been restored to at least this quality.

URETERAL OBSTRUCTION

Extension of the neoplasm into the parametrium often compresses the ureters and produces hydronephrosis which slowly destroys the function of the kidneys. The patency of the ureters can sometimes be restored by careful dilatation. Such procedures, however, are contraindicated in the presence of uremia which affords a painless and fairly rapid termination of the disease.

Of all measures at our disposal for prolonging the life span of these women, high-voltage roentgen therapy is by far the most important. It should be employed in every case of carcinoma of the cervix. If the disease has progressed to the fourth stage, better palliative results can be obtained by its exclusive use than by any other method of irradiation. A recent review³ of "117 patients with Stage IV carcinoma of the cervix showed that the duration of life after treatment with radium combined with high-voltage roentgen-ray therapy was twice as long as if radium was used alone." When only high-voltage therapy was employed the patients lived 3 times as long as if only radium irradiations were given. The superiority of high voltage roentgen-ray therapy alone in advanced carcinoma of the cervix, we believe to be due to: (1) Its effectiveness is over a greater area; (2) its less caustic effect avoids rapid destruction of tissues and consequent toxic absorption; (3) there is decreased risk of fistula formation; and (4) there is no manipulation of the primary growth to disseminate infection and cancer cells. For effective treatment, an apparatus which will deliver rays at a potential difference of approximately 200,000 volts is needed. This apparatus should be standardized at regular intervals so that continuously efficient performance is assured. The irradiation should be administered in such a way that at least 100 per cent of a skin erythema dose is delivered into the tumor within a week, and this saturation must be maintained for an additional 10 to 14 days.

The roentgen-ray factors used by us are as follows: 20 kv. (peak), 0.5 cu. mm. and 2 mm. *al* filtration, half-layer value 0.85 cu. mm., 50 cm. focus-skin distance, fields 12 x 20 cm., and erythema dose 800 roentgens as measured in air. Whenever possible, the patient is treated routinely 3 times a week using 5 fields, 2 anteriorly and 2 posteriorly directed so as to cross-fire the tumor area, and a fifth over the spine. The tumor area is irradiated, treating 4 fields at one sitting and giving about 20 per cent over each area. The tumor area is given a 100 per cent skin saturation dose of 800 roentgens. Saturation is maintained until a total dose of 1600 roentgens are delivered to the tumor area, requiring about 3 weeks for one complete series. The number of roentgens delivered to each skin area will vary with the size of the patient. After about 6 weeks, a second complete series is routinely given. Further irradiation depends upon the condition of the patient.

Measures for prolonging the lives of patients with carcinoma of the cervix can hardly be justified unless there is reasonable assurance that the

additional life can be made comfortable. Pain may be due to irradiation reactions, fistulas, cystitis, proctitis, extensions of the growth, causing compression of the ureters and bowel, or involvement of the bony pelvis or of afferent nerve trunks by the tumor cells. It may also be due to purulent collections within the uterus or in the pelvis. In exceptional cases the carcinoma extends to the skin of the perineum.

Rectovaginal and vesicovaginal fistulas occur rarely if high-voltage therapy alone is used. If present, the annoyance of a rectovaginal fistula can be greatly decreased by a properly planned diet and by the use of drugs which control the frequency and consistency of evacuations. If the vagina is cleansed with a soothing douche, after each movement, there need be little discomfort. Vesicovaginal fistulas are more distressing because of the continuously offensive odor and the irritating effect of ammoniacal urine. This and phosphatic deposits on the skin of the vulva can be prevented by keeping the urine faintly acid with acid sodium phosphate. If the skin becomes inflamed it should be cleansed frequently with boric acid solution and a mildly acid ointment should be applied. Nupercaine or 4 per cent cocaine ointment will allay pain and itching in the most obstinate cases.

Cystitis may occur as the result of too intense irradiation or from involvement of the bladder wall. In either case, dilution of the urine by the copious ingestion of water, and its alkalization will usually diminish the discomfort. The injection of ½ ounce mineral oil after voiding prevents tenesmus. Proctitis, a less frequent complication, should be treated by injecting oil or cold, thin starch paste into the rectum. If relief does not follow, the application of an anesthetic ointment will prove effectual. The pain of hydronephrosis sometimes disappears after the application of high-voltage therapy presumably from destruction of the tumor tissue compressing the ureter. Ureteral catheterization or dilatation will bring prompt relief.

Carcinoma may extend through lymphatics to the pelvic wall or to the vertebral column and there involve bone. This can be recognized by roentgen-ray examination. Such bony metastases are usually radiosensitive and in most cases deep roentgen-ray therapy not only relieves the pain but also retards the progress of the secondary lesion.

The blood vessels, nerves, and lymphatics to the cervix are in close relationship both in the parametrium and below the bifurcation of the aorta in the region of the superior hypogastric plexus. Histologic studies by Philip Custer, of this portion of the sympathetic system, after

removal, which was followed by relief of the pain, has convinced us that the excruciating pelvic pain seen in these patients is often due to involvement of these afferent sympathetic fibers. Destruction of these nerve fibers by the growth may explain the spontaneous relief of pain sometimes observed in the later stage of this disease. Involvement of the sciatic nerve may also occur but is a more uncommon neurologic complication than the former.

Paravertebral block by alcoholic injections, into the posterior roots of the spinal nerves from the tenth thoracic to the third lumbar segments inclusive, is said to relieve pelvic pain for periods of from 2 to 12 months. As the disease progresses, additional injections may be required.

Cordotomy, proposed and practiced by Spiller and Frazier, for the relief of pain in the pelvis and lower extremities, has been used with success in many neurosurgic clinics. This operation consists of a laminectomy over the region of the fourth thoracic segment of the cord and division of the afferent sensory fibers in the anterolateral column. By this operation loss of pain and temperature sensation is secured in the lower abdomen and leg. Complete relief of pain has been reported by Grant in 84 per cent of cases. The advantages of this operation are that anesthesia is complete and permanent. It will relieve bone pain and pain from involvement of cutaneous nerves as well as visceral pain. Its chief disadvantage is that the operation requires expert neurosurgical skill. Improperly performed it may either fail to give relief or may result in motor as well as sensory paralysis of the lower extremities.

Excision of the superior hypogastric plexus (presacral nerve) has been recommended by Cotte, Leriche, Bittmann, and Fontaine and Hermann. It has been employed on numerous occasions for the relief of pain in inoperable pelvic carcinoma and a high percentage of relieved patients has been reported. In evaluating such operations the extent and duration of the analgesia should always be considered. Palliation which is temporary or partial can not be regarded as successful, and only statistics which state the number of patients completely relieved for the remainder of their lives are of any value. In this operation the abdomen is entered through a mid-line incision and the viscera are so retracted that the promontory of the sacrum is exposed. The posterior peritoneum is divided longitudinally and the sympathetic plexus is identified between the common iliac arteries, upon the prevertebral fascia. The plexus is separated from the underlying structures and is resected from the level of the bifurcation of the

aorta to a point as far down in the pelvis as possible. The posterior peritoneum is then sutured and the abdomen closed in the usual manner. Except if complicated by extensive metastases or adhesions, the operation is not particularly difficult to perform and can be completed in less than an hour. It is borne surprisingly well even by debilitated patients.

We have employed this operation at the Philadelphia General, University, and Bryn Mawr Hospitals, 21 times. Fifteen of the 21 patients were completely relieved for the remainder of their lives or until the present time. In one instance, extensive involvement of the pelvic viscera by the carcinoma prevented us from reaching the sympathetic fibers. In the remaining 5 women, the pain was either only partially relieved or else there was recurrence before death.

At the Philadelphia General Hospital, in the year 1932, thirty-two patients, all of whom had been treated with high-voltage roentgen therapy, died. Thirteen of these had severe pelvic pain and in 4 it also radiated to the legs. The superior hypogastric plexus was excised in 9 of these women. Of this group, 7 have died without return of the pain; 3 from uremia; 2 after hemorrhages; 1 from multiple abscesses; and 1 apparently from a pneumococcic infection of the mouth and nasopharynx. Two were incompletely relieved but were considered improved by their family physicians. One of these is of particular interest since pain in the lower abdomen and legs disappeared after the operation but there was no improvement in her rectal discomfort.

Pelvic sympathectomy has several advantages over other operations for the relief of pain in carcinoma of the cervix. The field of the operation is one with which every pelvic surgeon is familiar. There is no danger of impairment of either sensory or motor function to the lower extremities. The operation can be performed quickly without undue shock. Opportunity is afforded to study the intraperitoneal progress of the growth. Its disadvantages are that it does not relieve pain caused by involvement of the cutaneous nerves or bone. If the disease advances beyond the region supplied by the superior hypogastric plexus, there may be a return of the pain.

In addition to these special measures it is as important to keep patients who are suffering from advanced carcinoma of the cervix under continuous medical supervision as, for instance, patients with hopeless tuberculosis. A diet is required which is high in caloric value, easily assimilable, and which will maintain general nu-

trition without causing digestive disorders. Careful attention to the condition of the bowels will control the tendencies, in some cases to exhausting diarrhea, in others to obstinate constipation. Every effort should be made to keep these patients ambulatory, and they should be encouraged to follow their normal interests and activities as long as possible. A continuous recumbent posture favors the development of decubitus sores and hypostatic pneumonia. Fresh air and sunlight promote a feeling of well-being and strengthen the resistive powers. The administration of calcium and viosterol is of great value but should not be persisted in if they are found to impair the appetite or digestion. Alcohol provides an easily assimilated and readily available form of energy. It can be administered as malt liquors, wine, or whisky but when necessary can be disguised in a tonic. Combined with gentian it makes an excellent stomachic.

Even in the absence of pain these patients are rarely entirely comfortable. Nervousness and insomnia are frequent complaints and are common after narcotics have been withdrawn following the surgical relief of pain. In such situations, sedatives, particularly those of the hypnotic type, are almost indispensable. Of these, sodium amytal, in doses of from 3 to 6 grains at bedtime, has been most effectual. If taken with the juice of fruits, rich in citric acid, its action is accelerated. Amidopyrine, acetyl salicylic acid, or antipyrine will allay pain in most instances, but opiates by mouth, by rectum, or by hypodermic may be required. The latter should be prescribed only after all other means of allaying suffering have been tried unsuccessfully. Close supervision and the practice of the aforementioned procedures will limit the need of narcotics to a comparatively small group and to these only late in the course of their disease.

We have at our command means of relieving pain which can render the terminal stage of advanced carcinoma of the cervix scarcely more horrible than the end of other incurable diseases. It would seem, therefore, as desirable to defer this as long as possible. In most cases it can be accomplished by the use of high-voltage roentgen therapy, the replacement of lost blood, the elimination of infection, and such general measures as will promote nutrition, increase resistance, and elevate the morale of the patient.

ABSTRACT OF DISCUSSION

NORRIS W. VAUX (Philadelphia): As Dr. Behney has shown, there is a palliative treatment for these so-called hopeless cases of carcinoma. The two outstanding ideas which have been more or less brought to the fore lately, particularly through some of the work that Dr. Behney has done, are: (1) The deep roentgen-ray therapy with the high-voltage roentgen-ray machine. The saturation test should be done by some one who understands this work thoroughly. This treatment will give relief of pain, will help to cure the infection, and will stop the ravishing hemorrhages, and the spread of the disease. More than that, it unquestionably helps prevent metastases throughout the pelvis and other portions of the body.

(2) In the cases of inoperable carcinoma of Class IV type, we have not utilized the operation on the presacral plexus as much as we should. This should be done in 2 to 4 hours after the massive dose of roentgen ray has been given. It has proved a distinct advantage because it enables us to find out in opening the abdomen how much involvement there is in the pelvis. I should reserve the chordotomy and the paravertebral block for those cases in which the presacral nerve operation cannot be done because of the frozen pelvis and advancement of the disease.

Another important point is that patients with these advanced cases cannot always be cared for in their homes. They should be hospitalized as proper treatment for clearing up the infection, fresh air, and nutrition can be better carried out in an institution than in the home. Some can go home after treatment is instituted. They are usually free from pain, if the presacral operation is successful.

In all these more or less hopeless cases, Dr. Behney's paper holds out one important thing, that although we consider these cases to be hopeless, a large proportion of these patients can at least be made comfortable by carefully instituted palliative treatment.

LEWIS C. SCHEFFEY (Philadelphia): In performing sympathectomy, we have had the experience on the Gynecologic Service at Jefferson Hospital of but one case in which we considered that the pain might be relieved by this operation. For 2 or 3 weeks the patient was relieved of the pain experienced prior to the operation. After that, recurrent pain annoyed her for at least 6 weeks, until death occurred. The operation may offer to properly selected cases some help.

J. L. WEATHERWAX (Philadelphia): I should like to show lantern slides depicting a method of giving radiation. This method is carried out very well throughout Pennsylvania in practically every laboratory using high voltage. I wish to show how we deliver the radiation to the tumor area and control radiation of the skin. Depth intensity curves show the penetration of radiation to various depths beneath the surface of the skin. An anatomic cross-section diagram of the patient is made giving the anteroposterior and lateral dimensions of the patient being treated. A 4-field technic is used directing the radiation towards the tumor area. By means of depth intensity curves which have been worked out in the laboratory, the total tumor intensity can be determined.

The summation of radiation directed towards the tumor area from each of the 4 fields gives a tumor intensity of 145 per cent, compared to a skin intensity of 110 per cent. Therefore, to deliver 100 per cent skin dose to the tumor area, each skin area receives less than 100 per cent skin dose. The skin will further tolerate

133 South 36th Street.

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radiation if each of the 4 fields is irradiated at the same sitting. A larger total tumor dose can be given in this manner with relatively less skin damage. The output of radiation from any roentgen-ray machine can be measured and standardized in terms of the roentgen as determined by the Bureau of Standards.

A standardized dose of radiation, anatomic cross-section charts of the tumor drawn according to the antero-posterior and lateral dimensions of the patient, and application of depth dose charts to determine the tumor skin intensity tend to eliminate any danger in the use of high-voltage radiation.

SALVAGING THE HARD OF HEARING CHILD*

DOUGLAS MACFARLAN, M.D., PHILADELPHIA

There are a great many causes, urges, and drives taking possession of persons nowadays. The relative necessity of each is a matter of some moment; the relative cost of each is of more moment; and the relative saving sought, is of greatest moment.

The importance of such a "cause" as deafness in children must take its place somewhere amid problems such as undernutrition, tuberculosis, postural defects, poor vision, behavior problems, and such. All these problems have had an earlier consideration than childhood deafness, so that as the latter comes into a crowded field it is necessary to establish its case.

Small degrees of deafness go unnoticed. Deafness often creeps up gradually. In the initial stages nothing of it is seen or suspected. Such facts as these are the reasons why the importance of early deafness does not, in individual cases, force itself upon us. Let us take commonplace and extreme examples.

A child age 4 has had the usual childhood fevers so often considered of no moment. These have apparently passed off with no seeming consequence, yet one attack of mild measles has left a certain degree of deafness, that has gone unnoticed. Soon, this child merely appears as a "difficult" child, slow to understand, slow to learn, apparently listless, a daydreamer, really thrown into introspection and introversion. If she is an extrovert, projectile type, she meets a difficulty with her limited ability to understand acutely. It all arises through the failure or partial failure in hearing language—the keystone of all social and educational development. The "thwarting" by this child's handicap is an enormous menace to her future life.

Already a problem by age 6 when she started school, she does poorly, loses 2 or 3 grades in her school career, disappoints parents, and provokes teachers. Unfavorable comparisons from within and without, still further shock a sensitive misunderstood child. Ultimately, deafness is discovered and the way around the obstacle is

undertaken; but the damage has largely been done. In 4 years' time a "different" child has been established, the psychologic and spiritual mold has been formed and has largely set. All through life the difference, with its handicaps, is to drag upon this child's economic, social, and spiritual existence.

Until you have seen these cases in all stages, you will be unwilling to accept the conclusion that such profound damage can result from that which appears trivial, moderate deafness.

Let us turn to a serious and severe case in which the background was deafness alone. The moderate deafness began in childhood; the thwarting and misunderstanding produced a problem child. The child's will and efforts to overcome the obstacle, developed constant disappointment and failure. A stubborn antisocial spirit appeared and grew to such limits as to necessitate incarceration in an institution for the criminally insane. Here, grown to manhood, he was discovered by a doctor-psychologist who looked deeply enough to realize the cause. His rehabilitation was undertaken successfully through psychologic adjustment and through lip-reading lessons. He now understands and is understood. He is salvaged.

Individually we can work up sympathy on case records in any cause. But is the magnitude of the problem worthy of attention? How many cases are there? Statistics are now sufficiently complete to show that at least 3 to 5 per cent of the school population are handicapped by some degree of deafness. A 9 per cent hearing loss gives poor school performance. Consider then, these facts: Language and speech are most dependent upon hearing; education is most dependent upon hearing; language comprehension, speech, and education, are primal features in the structure of man as a social individual.

The individual and aggregate expense of the smaller degrees of deafness, though unmeasurable, must be enormous. We do know that the cost of repetition of school terms on account of deafness is huge. Here we deal with only part of the economic picture, for the deafened school child grows into an inefficient worker.

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania. Philadelphia Session, Oct. 5, 1933.

The expense of finding these cases is none other than that of alertness, keenness of observation on the part of doctors, teachers, and parents, and the cost of routine auditory testing in childhood.

The salvage of these deafened children and the restriction of some of this annual national loss are not easy matters, yet they are relatively inexpensive. It depends upon the aforementioned early detection of deafness, and upon the undertaking of methods already well proved which will keep these deafened individuals in normal capacity and in normal psychologic balance. You may note that, though I am an otologist, the treatment of deafness has not been mentioned. Let it be said that, as at least 50 per cent of the deafness is catarrhal, the progression of deafness can be checked in many instances. Occasionally, hearing can be restored if taken early.

The day is passed in which a doctor, or any one, dare say that nothing can be done for deafness. Modern hearing aids, lip reading, and psychologic adjustment, have been the means of salvaging thousands of cases. Add to this the possibility of the otologist's preventing the progress of many of the cases.

Our immediate problem is one of detecting deafness in the preschool age at which most of it starts. Suspect or eliminate deafness in every problem child and in every backward child. Examine the hearing after every attack of measles, scarlet fever, or mumps. Get the deafened

meningitis patient under language training immediately after recovery.

As doctors we have a large responsibility in this matter, and the public will ultimately look to us to detect early deafness. We should at least know of the problem, better still, know and understand the problem; and last, "but first," detect beginning deafness in childhood.

1805 Chestnut Street.

CASE REPORT

DOUGLAS MACFARLAN, M.D., Philadelphia. (In connection with his paper on "Salvaging the Hard of Hearing Child.")

This girl is now age 11. At birth she looked as though the condition was a hopeless case, and it appeared almost better to let nature take what would probably be the obvious course, but we have been working with her through these years and there has been much improvement. You can see the button ears, the macroglossia, and on examination we found no post-nasal opening so that she cannot breathe through the nose. The mother brings her in regularly, and the brothers and sisters are very conscientious in trying to teach her language. I hope to stimulate their efforts even more. She now has quite a vocabulary, although there is a speech defect on account of the tongue. I think we will have no trouble in having her educated. We hope to do something with the button ears, and give her more hearing through bone conduction. Her mother says that she has asked to have her mouth fixed so that she can close her lips.

We should take these cases early and try to adjust them psychologically to their handicap. It can be done, and if we do it we accomplish a great deal spiritually for them. In this case a child who would have been a total loss is salvaged.

NEWER ASPECTS OF HYPOGONADISM IN THE MALE*

JAMES F. McCahey, M.D., PHILADELPHIA

That the male gonads are organs of reproduction was common knowledge in very ancient times. Castration was practiced in the Orient in remote antiquity. It was also known that certain characteristics of the male were modified by removal of the testicles and that these changes depended upon whether castration was done before or after puberty. Those features of the normal male which were affected by gonadectomy were called secondary sexual characteristics. In some instances the primary purpose of castration was to modify normal development of extra-genital organs. Such, for example, was the practice, common until fairly recently in certain parts of Europe, of castrating boys to prevent natural development of the larynx so that the high pitch

of their singing voices would not be changed at puberty.

John Hunter showed that the prostate gland would atrophy in adult dogs following castration and that castration of young dogs resulted in failure of development of the prostate.

In 1849, Berthold demonstrated that the usual changes in the head furnishings of fowl which follow caponization did not occur if the gonads were transplanted from their normal site to another part of the abdomen. These experiments indicated that the male characteristics depended upon an internal secretion from the testes.

The particular structure of the testicles which secretes the specific hormone is undetermined. It is commonly supposed that the hormone originates in the interstitial cells. One reason for this view is that the tubular elements of the testes

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

may be almost completely destroyed by disease, injury, exposure to the roentgen ray, *etc.*, without ensuing changes in the secondary sexual characteristics of the affected individuals. Inasmuch as the interstitial cells are little if at all affected by the various factors mentioned, the deduction that the internal secretion is elaborated by these cells has appeared justifiable.

The existence of a relationship between the hypophysis and the gonads was indicated by Fröhlich who described hypoplasia of the genital organs as one of the manifestations of pituitary tumors. Abundant clinical and experimental evidence has accumulated to prove that although the male secondary sexual characteristics and the accessory sexual organs are dependent upon testes' hormone, the secretion of the anterior portion of the pituitary is essential to normal development and subsequent structural and functional maintenance of the gonads. Removal of the hypophysis in animals is invariably followed by atrophy of the testes and accessory sexual organs. Various investigators have demonstrated that castration in animals causes histologic changes in the pituitary. In the rat these changes consist principally of increase in size and number of the basophiles with vacuolization of some of these cells, increase in size of the blood channels, and production of colloid.

Recent investigations have increased our knowledge of some of the factors concerned with the maintenance of normal gonadal activity although the subject is still replete with unsolved problems. Reasons of space prohibit mention here of all recent contributors. Noteworthy work has been done by certain American biologists, in many instances with the coöperation of the Committee for the Study of Sex. An extensive bibliography may be found in *Sex and Internal Secretions*, edited by Edgar Allen, published by Williams & Wilkins Company, Baltimore.

In 1917, Lillie published the results of his investigations of the freemartin, a sterile hermaphrodite cow. It had been known that in most cases of heterosexual twins in cattle the male would be normal but the female would be a freemartin. A freemartin has the external appearance of a female but the internal genital organs are intersexed, that is, they partake of the structure of both sexes. Lillie demonstrated that fusion of the embryonic membranes with resultant anastomosis of the blood vessels was the essential factor in the production of the freemartin. The male sex hormone is elaborated earlier in fetal life than the female sex hormone and the anastomosis of the fetal vessels permits passage of the male hormone into the female

fetal circulatory system. The male hormone acts to retard development of the cortex of the ovary and stimulates development of the medullary portion into a testislike structure. In heterosexual twin pregnancies in cattle without anastomosis of the fetal vessels the female as well as the male is normal.

An analogous condition does not occur in the human. Nevertheless, Lillie's study of the freemartin is of fundamental importance because of its demonstration of the action of sex hormones and because of its stimulating effect on investigative study.

Some Japanese investigators (Matsuyama and Yatsu) were led to study the effects produced by joining small animals together artificially by means of parabiosis. Uniting rats by parabiosis is done by making an incision on adjacent sides of two animals through the skin, muscles, and peritoneum. The upper and lower edges of the two wounds are sutured together in layers so that the skin, muscles, and peritoneum of both animals are united above and below forming a communication between the peritoneal cavities. These investigators found that union of normal animals, males with males, females with females, or male with female, produced no particular change in either animal. Union of normal females with castrated males was followed by changes in the uterus and ovaries. The uterus became enlarged and edematous (hydrometra) and follicular cysts and corpora atretica developed in the ovaries.

The significance of these findings was not immediately recognized. It was thought that they were due to a hormone peculiar to castrates and the term kastrohormone was used to denote the substance thought to be the cause of the changes in the reproductive organs of the female. It was soon noted, however, that these effects were identical with those caused by injections of extracts of the anterior portion of the pituitary and it became apparent that castration is followed by hypersecretion of the hypophysis.

Evans and Simpson showed that artificial cryptorchidism produced by transplanting the testes of animals from the scrotum to the abdominal cavity which causes atrophy of the tubular elements of the glands was also associated with increased activity of the pituitary but not to so marked a degree as in castrated animals. Artificial cryptorchidism has no destructive effect upon the interstitial cells. It, therefore, appears that the hypersecretion of the hypophysis in such cases is related to destruction of the cells of the germinal line.

The fact that artificial cryptorchidism and castration are followed by abnormal activity of the

anterior lobe of the pituitary suggests that under normal conditions the testes exert an inhibitory effect upon the hypophysis. Further evidence of this inhibiting action is afforded by the experiments of Martens and Rocha. They united immature normal and castrated rats by parabiosis and found that the normal animal became sexually premature because of the stimulation of the anterior pituitary secretion absorbed from the castrate. Subcutaneous implants of testis substance into the immature castrate, however, prevented sexual precocity in the normal parabiotic twin which these experimenters attributed to a factor contained in the testis substance which had an inhibiting effect upon the pituitary of the castrate.

Moore and others have shown that testis extracts when injected into animals have a deleterious effect upon the gonads and accessory structures attributable to the depressing effects of these extracts upon the hypophysis. This is an important consideration in the field of hormone therapy.

McCullagh has succeeded in separating the accessory gland stimulating substance in the testis hormone from the hypophysis depressing factor. The former is called androten and the latter inhibin. These preparations are not yet available commercially.

The peculiar properties of the urine of pregnant women which hasten maturation of the ovaries when injected into certain immature animals is due to the presence of a substance called prolactin by Zondek. Prolactin is either excess secretion of the anterior pituitary eliminated in the urine or is a substance having similar properties.

Prolactin is found in the urine of castrated men and ovariectomized women and apparently persists through the life of these persons.

Of especial interest here is the demonstration of prolactin in the urine of men with malignant tumors of the testicle. The test for prolactin in the urine is becoming of importance in the differential diagnosis of scrotal masses. Ferguson found that the amount of prolactin in the urine varied with the type of testicular malignancy, the amount being fairly constant for each type, and that prolactin persists in the urine after removal of the primary tumor in the presence of metastases. He states that in cases of malignant tumors of the testicle the disappearance of prolactin from the urine is indicative of arrest of the entire malignant process and that the reappearance of prolactin in the urine after its previous disappearance is evidence of activity of a metastatic area.

Parabiotic union of normal male with castrated male rats causes enlargement of the acces-

sory sex glands of the normal animal because of stimulation of the testes from anterior pituitary secretion derived from the castrate. Reports of the effect of this union on the individual accessory sex glands are somewhat at variance probably because of the paucity of information relative to the normal (and variations of the normal) size and weight of these organs in experimental animals of different ages and weights. The increase in size of the seminal vesicles is the most striking change. The prostate and Cowper's glands are also affected. Lower has produced enlargement of the prostate in rats by injections of anterior pituitary extracts.

These experiments form the basis for the belief that prostatic enlargement in the human is a physiologic reaction to derangement of the pituitary-gonad hormone balance. We may expect that successful methods will be devised to correct this endocrine dysfunction in the early stages of prostatic enlargement.

The genital organs of the castrate parabiotic twins invariably undergo atrophy indicating that male hormone is not absorbed from the normal paired animals. No explanation can be given at present for the failure of testis hormone to pass from the normal to the castrate.

Castration changes have been extensively studied in animals with results which vary with the species selected. Atrophy of the accessory genital organs invariably occurs. Other changes depend upon the nature of the secondary male characteristics of the species. In some birds changes in feathering occur; in some horned animals the horns regress, *etc.* In many instances these changes may be prevented by the continuous use of testes extracts following castration. The later use of these extracts is often followed by partial or complete restoration of the affected structures to normal. These results afford methods of testing for the presence of male hormone.

Moore has pointed out that the subject of castration changes in the human is contaminated with popular ideas which have gained admission to medical literature but which have no scientific basis. The subject needs reconsideration in the light of present day knowledge.

The isolation of male hormone from urine by Funk and Harrow in 1928 has opened up a new field for investigation and should permit of accurate diagnosis in cases of hypogonadism.

In the Department of Chemistry of Jefferson Medical College, Drs. Bancroft and Hansen have recovered male hormone from urine using the method described by McCullagh. The preparation is tested by injection into capons. Caponization or removal of the gonads from cock-

erels causes failure of development of the comb and other head furnishings. A positive test for male hormone consists in increase in length and height of the comb of a white or brown leghorn capon following two or three daily injections of the preparation to be tested.

Male hormone has been found in the urine, blood, and spinal fluid of normal males. It is absent from the body fluids of castrated males. It has been found in the urine of normal non-pregnant women. Its source in the female supposedly is the medulla of the ovary which is the homologue in the female of the male gonad.

CONCLUSIONS

A great part of the newer knowledge of the endocrine function of the testes has developed from biologic investigations. If the pitfalls of the past are to be avoided, clinical application of this knowledge should be guided by biologic principles.

We may expect a better understanding of the changes associated with hypofunction of the testes in the human based upon clinical and investigative study and free of popular fallacies. These studies should take cognizance of the two endocrine functions of the male gonads.

The most practical problem at present is the correction of the pituitary-gonad hormone dysfunction in the early stages of enlargement of the prostate.

1709 Pine Street.

ABSTRACT OF DISCUSSION

GEORGE R. BANCROFT (Philadelphia): The first biochemical investigation which proved that an active extract can be prepared from testis tissue was carried out by L. C. McGee in 1927. He extracted the testicular tissue of bulls, which was finely ground with alcohol at room temperature. This extract was concentrated under diminished pressure until an aqueous suspension of lipins remained. This material was extracted with benzene, and the benzene-soluble portion was taken up in olive oil, and injected deeply into the breast muscles of single-combed leghorn capons. Brown leghorn capons were used and the injections were performed daily for 5 days with the result that comb-growth was observed to vary with the amount of hormone present. Changes in length, height, color, and turgor of the comb were observed.

McGee also showed that this active fraction, if injected into castrated guinea pigs, prevented the usual atrophy of the seminal vesicles. A better seminal vesicle test was devised by Moore, Koch, Gallagher, and Hughes on the rat by following the histologic changes produced in the seminal vesicles after castration and by the injection of the hormone.

Womack and Koch demonstrated this comb-growth stimulating hormone to be present in bull's blood, finding that it required a daily injection per capon of the hormone derived from 300 to 600 c. c. of whole blood to produce an unmistakable comb-growth in 5 days. Funk, Harrow, and Lejwa first showed this hormone to be

present in men's urine by the injection of white leghorn capons. The same physiologic activity has been reported in human female urine, and in ovarian extracts.

The quantitative assay of the comb-growth stimulating hormone is estimated by Gallagher and Koch in terms of bird units. Individual variations in the response shown by birds are eliminated so far as possible by standardizing the capons, and by using at least 10 capons for each dose tested. They have defined a bird-unit as the amount of the hormone which if injected daily for 5 days yields an average of 5 mm. increase in length plus height of the combs of at least 5 brown leghorn capons.

The Butenandt group in Germany seem to have been able to isolate this hormone from human urine in the purest form that has yet been obtained. Their analysis of the crystalline product obtained gives the formula $C_{16}H_{26}O_2$. This formula and other studies such as its chemical behavior with hydroxylamine indicate that the substance is a ketone-alcohol derivative of a saturated cyclic compound. The oil from 25,000 liters of urine after repeated hydrolysis yielded 15 mg. of a crystalline substance possessing an activity of approximately 0.005 to 0.001 mg. per bird unit.

In August, 1929, Doisy, Veler, and Thayer reported the isolation of a substance from the urine of pregnant women, which they named theelin. They showed this substance in crystalline form, and indicated its melting point as $240^{\circ}C$. In October, 1929, Butenandt by an independent method of separation and purification obtained the same result referring to the compound obtained as "progynon." Many others have confirmed this result in various laboratories and have found that this hormone produces estrus in spayed female rats. The compound has been shown to be represented by the formula $C_{18}H_{22}O_2$, and that it is an unsaturated ketomonatomic alcohol having a molecular weight of 270. The hydroxyl is phenolic in character since theelin gives phenol color reactions. The bio-assay of theelin depends upon its ability to produce estrus in ovariectomized rats and mice which is determined by the cornification of the vaginal smear. One liter of pregnancy urine contains 10,000 mice units or 1 mg. of theelin or 0.000,000.1 grain theelin equal to 1 unit, equivalent to 0.1 gamma. The work of Marrian and Kögl indicates theelin may be closely related in its structure to cholesterol, since it bears a similarity to cholestane and cholic acid.

The method used in the Jefferson Medical College laboratories for isolating the male hormone from male urine for its quantitative assay by the comb-growth reaction is that described by McCullagh. A 48-hour specimen was collected from each case under survey. The urine is acidified sufficiently to dissolve all the phosphates. Chloroform is added to the amount of 333 c. c. per liter of urine, and the whole boiled on a water-bath under a reflux condenser for 8 hours. A small stream of air is bubbled through the chloroform and urine layers to prevent bumping. The chloroform is separated from the urine at the end of the 8-hour period and is recovered by distillation. The residue in the distilling flask is taken up with ether and transferred to a small beaker. The ether is then evaporated by a current of air, and the residue from the ether is dissolved in a small amount of olive oil.

The preparation was tested by injection into the breast muscles of capons of the white leghorn variety. A positive test was obtained for the male hormone consisting in an increase in length and height of the comb of the capon following daily injections for 3 days of the preparation to be tested.

DR. HANSEN (Philadelphia): We have carried out extraction of the hormone and have been carrying on some experimental work with capons but we have not worked with a sufficient number at the present time. The result that one can produce with capons varies considerably with different capons and with their ages. Furthermore, the extraction is carried out by obtaining the hormone from blood as well as from urine. The method for obtaining it from blood is somewhat dif-

ferent. It is impossible to say how much impurity there may be along with the hormone and what effect it may have upon the results that are noticed in the animals, whether they are toxic or otherwise. Much more work needs to be done to be certain that one really gets the same thing by extracting different urines and to be able to say that one gets comparable results. It is necessary to have a much purer hormone extract than we are at present able to get.

KERATODERMIA BLENNORRHAGICUM*†

Report of Cases

BERNHARD A. GOLDMANN, PITTSBURGH

Sutton¹ defines this condition: "A chronic inflammatory disease of the skin, occurring in conjunction with gonorrheal infection of the genital tract or of the joints, and characterized by a symmetrical eruption of horny, conical nodules, pustules and crusts of the palms, soles, and other parts of the body."

Vidal, in 1893, first described this disease. Keim, in 1924, reviewed the literature and cited a total of 58 cases. Barrett, in 1930, cited 13 cases that had been reported up to 1930 and added one of his own. Chambers and Koetter, in 1933, brought the total number of cases up to 73. Since then Feldman and Sayer each presented a case before the Bronx Dermatological Society and with these 2 cases which are reported here the total is brought to 77.

ETIOLOGY

From the work of these investigators in finding this eruption in conjunction with gonococcal infection we may readily deduce that the etiologic factor is the gonococcus, but whether the eruption is the result of a gonococcal bacteremia or due to the direct action of the gonococcus in the skin has not been established. It is true that each exacerbation of the skin lesions is accompanied by a general body reaction, such as sudden rise in temperature, chills, and severe joint pains, which is probably due to a shower of the organism or its products into the blood stream; yet numerous workers, Gager, Wadsack, Campbell, DuBois, and Barrett, have demonstrated the presence of gram negative diplococci in microscopic sections and it may be possible that the presence of the organism in the tissues causes a thrombosis of the superficial vessels and thus gives cause for the pathologic picture.

SYMPTOMATOLOGY

This skin disease is always seen in individuals suffering from a gonococcal infection which is accompanied by definite signs of gonococcal arthritis. The patient is ill, runs a mild fever 99° to 101° F., although at times the temperature may rise to 104° F. There is loss of weight and appetite with general malaise. The joints are painful, swollen, and motion is limited. Later a rash may appear, generally on the extremities. The lesions at first are reddened papules, nodules, or vesicles which may become pustular, and coalesce, dry, and form crusts. These crusts become thick and hard, and form horny plaques which protrude above the surface of the skin and if removed leave moist pigmented patches on an inflamed skin.

The sites of predilection are the extremities, especially on the palms and soles, although any portion of the skin surface may be involved. Lesions of the mucous membranes have been described. Lesions of keratoderma blennorrhagicum are resistant to treatment and persist until all the deep foci of the gonococcal infection have been eradicated.

PATHOLOGY

On examining a microscopic section of keratoderma blennorrhagicum, there is found in the epidermis a marked parakeratosis, acanthosis, spongiosis, vesicle formation containing leukocytes and wandering cells. In the corium the changes are usually in the papillary and subpapillary layers. There is dilatation of the vessels with an infiltration of lymphocytes, leukocytes and plasma cells, and edema of the surrounding tissue.

REPORT OF CASES

CASE No. 1.—I. S., white female, age 27, married 5 years, was admitted to the Homeopathic Hospital, June 12, 1927, with a complaint of swollen and painful joints. She recorded in her history that after the birth of her

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†From the Department of Dermatology, University of Pittsburgh.

child 4 years ago she had a vaginal discharge with bearing down feeling in the pelvis. Her menses were painful. She tired easily. About this time she also complained of pain in both ankles and knees which became swollen and within a period of a year the back, fingers, and jaw became affected. In July, 1926, she was admitted to the South Side Hospital with a diagnosis of chronic salpingitis and both tubes and one ovary were



Fig. 1. Case No. 1, showing enlarged joints and skin lesions on the extremities.

removed. She had been bedridden for the past 4 months, because of pain and swelling in all the joints.

Examination revealed a well developed, poorly nourished white female, complaining of pain in her joints. Motion in the mandibulo-temporal articulation is limited and the patient can barely open her mouth due to the extreme pain. There is deformity and swelling of both hands. Both knee and ankle joints are enlarged but not inflamed. The skin is moist and clammy; temperature, 99.2° F.; pulse, 90; respiration, 18.

About 5 months after admission the patient complained of pruritus and a rash appeared on both feet. Dermatologic consultation was not requested until several weeks later and at that time there was a thick wartlike eruption on the body and extremities. The lesions, especially on the legs, consisted of erythematous pustules, most of which had coalesced and dried to form large raised plaques covered with a hard, easily removable crust. Where the crusts had been removed there were moist, inflammatory, and pigmented areas.

Wassermann and Kahn tests were negative. The com-

plement fixation test for gonococci was negative. Numerous vaginal and cervical smears revealed the presence of gram negative diplococci only on one occasion. Sections of the skin were stained for the presence of diplococci but all were negative. The microscopic examination of the skin showed over the center of the lesion a small dome-shaped crust composed of stratified epithelial cells with parakeratosis. There was marked acanthosis of all the layers in the epidermis with numerous leukocytes present. In the corium the vessels were dilated, the infiltration consisted of leukocytes, lymphocytes, and wandering cells; the surrounding tissue was markedly edematous. The patient remained in the hospital until July 6, 1928, receiving both local and general treatment and upon discharge the skin and arthritis were much improved.

The interesting feature regarding this case is the appearance of the skin lesions long after the deep foci, namely the tubes had been removed. It is probable that some gonococcal infection remained in some deep gland and was the focus for further disturbance.

CASE No. 2.—C. B., white male, age 20, admitted to the Presbyterian Hospital, Aug. 16, 1929, with the complaint of pain in the joints. The history as given was that in 1927 he contracted gonorrhea for which he was treated until cessation of the urethral discharge. About 2 weeks later he had a recurrence of the symptoms, pain, and burning on voiding and defecation, and a profuse urethral discharge. After a few local injections the discharge again ceased until Aug. 13, 1929, when the discharge became profuse. At this time he began to have a feeling of stiffness in the right ankle and the dorsum of the right foot. He also had chills followed by an elevation of temperature and a general feeling of malaise. The left wrist became painful and there was a feeling of tenderness over the back. He was able to

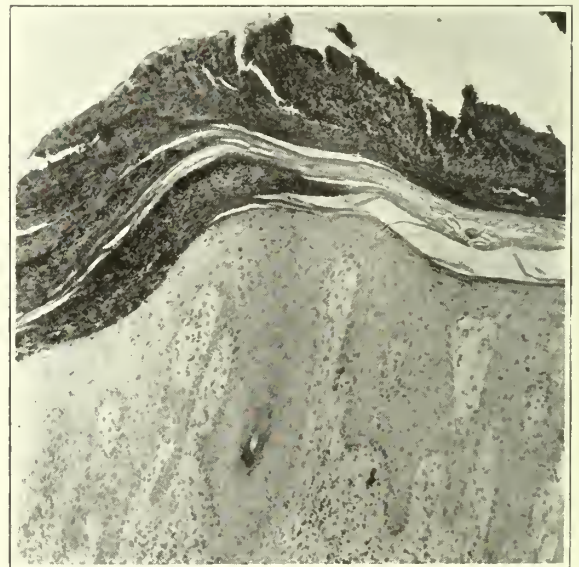


Fig. 2. Case No. 1. Section of skin. Low power magnification.

be about but the affected parts were extremely painful and he felt ill. At this time the eyes became affected, smarted, burned, and there was a copious thick yellow discharge.

Examination revealed a well developed, well nourished white male in bed, complaining of pain in the right

ankle, left wrist, left index finger, and lower portion of the back. Temperature, 99.3° F.; pulse, 96; respiration, 22. The skin was warm and moist, free from all eruptions. Eyes: Pupils equal, moderately dilated, sclera injected, slight amount of yellow discharge.

The inguinal nodes were enlarged and a small amount of thick, creamy, yellowish discharge expressed from the urethra. The prostate was enlarged and very tender.

The index finger of the left hand was moderately swollen, reddened, and there was an increase in temperature over these areas. Flexion and extension were painful. The left wrist exhibited the same picture. The right foot was swollen and there was a reddened area over the affected portion. The ankle was not particularly affected, although it was painful to motion. Pressure over the dorsum produced terrific pain. The discharge from the urethra showed gram negative intra- and extracellular diplococci. Complement fixation test was positive. Smears from the eyes were negative for gon-

larged and spread to the sole and a few days later similar lesions appeared on the sole of the left foot. The lesions later became moist, coalesced, and dried to form large superficial crusts over the dorsum of both feet. At the same time that the lesions appeared on the



Fig. 3. Case No. 2, showing skin lesions on the soles.

ococci and consultation with the ophthalmologist ruled out the possibility of eye involvement. Treatment consisted of combined vaccine as well as local treatment and on Sept. 5, 1929, the patient was discharged from the hospital, very much improved.

On Sept. 14, 1929, the patient was readmitted to the hospital complaining of pain on the right side of the mandible, right hand, knees, and legs and a recurring urethral discharge. Temperature, 101.6° F.; pulse, 96; respiration, 20. On Sept. 21, there appeared marked swelling of the right hand, a rise of temperature to 103° F., increased urethral discharge and numerous, varied in size, hard elevated nodules appeared over the inner surface of the right foot. These gradually en-



Fig. 4. Case No. 2, showing skin lesions on the hand.

left foot, several lesions appeared on the fingers. The patient was treated with intravenous injections of mercurochrome and with gonococci combined vaccine as local treatment to the skin lesions and on Nov. 11, 1929, was discharged from the hospital very much improved.

SUMMARY

1. The literature has been reviewed and two cases added to the list.

2. A brief résumé of the symptomatology and pathology has been recorded.

University of Pittsburgh.

REFERENCE

1. Sutton, R. L.: *Diseases of the Skin*, p. 488. C. V. Mosby Co., St. Louis, 1931.

ABSTRACT OF DISCUSSION

DONALD M. PILLSBURY (Ardmore, Pa.): The rarity of keratoderma blennorrhagicum, with only some 80 cases reported in the world's literature, is puzzling in view of the endemic nature of gonorrheal urethritis and the not infrequent occurrence of gonorrheal arthritis. The reason for its appearance in isolated cases awaits adequate explanation.

The gonococcus has been demonstrated in the lesions of only 4 cases in spite of the fact that almost all reported cases have been examined in this regard. Chambers and Koetter have recently observed a case in which 4 separate showers of new lesions were noted. The time relation in their case between development of fever, increase in the urethral discharge, and appearance of new skin lesions was extremely constant. They observed many lesions on the mucous membranes.

The resemblance of the process to arthropathic psoriasis is often remarkable and many investigators, particularly Adamson, have argued the identity of the processes. The weight of opinion is against this concept, however.

As Dr. Goldmann stated, treatment is not entirely satisfactory; general treatment for arthritis, administration of gonococcus vaccine, and treatment of the gonorrheal focus producing the best results. There are some indications that the disease, in so far as the skin lesions are concerned, tends slightly toward self-limitation. The longest reported duration of the process is 7 years.

While cases have been reported in which either urethritis or arthritis was absent and in which no positive evidence of gonorrhea could be uncovered, the triad of distinctive skin lesions, arthritis, and gonorrheal urethritis remain in the vast majority of cases as a striking syndrome, the significance of which should not be missed by any one at all familiar with the disease.

TREATMENT OF CONVERGENT STRABISMUS*

With Special Consideration of the Possible Loss of Vision

H. MAXWELL LANGDON, M.D., PHILADELPHIA

When I considered a topic for the paper which your committee asked me to read before this section, it seemed that I might use the time allotted to me better if it were devoted to one subject rather than trying to cover too many topics, and the one which seemed to be most fruitful of good results was the squint or strabismus which occurs during childhood, without paralysis of any of the extra-ocular muscles.

If one is to achieve a good physiologic result, it is necessary to start treatment very early in life, or should the squint not develop until age 3 or 4, as soon as it is noticed. The physician who has the care of the child's general condition is very likely to be consulted by the parents before they make any move to obtain advice from the ophthalmologist and should this physician not be conversant with the conditions of such cases he may, with the best intentions cause trouble by advising delay in the treatment, and this delay may lead to serious visual loss in one of the eyes.

Though this condition is one which has long been well known in medical history, it is only since the latter part of the last century that it has been handled in a really rational manner.

Donders first noticed that most of the children affected with this condition were hyperopic and he believed it was the over-activity of the accommodative power which was needed to overcome this hyperopia that brought about a convergence and resulted in the deviation of the visual axes from parallelism. He also noted that many children who were equally hyperopic did not develop squint and felt that there was another factor which probably was the deciding one. He believed that this factor was, as he expressed it, "the necessity of seeing an object singly with both eyes together."

Claude Worth later developed this idea of Donders into a very definite theory which he con-

sidered was a satisfactory explanation for the variation in the appearance of this form of strabismus. He agrees with Donders that hypermetropia is a great factor in causing a convergence of the visual axes but that there will be no actual deviations, in which the visual axes cannot be returned to parallelism if a good sense of fusion has been developed. He believes that hypermetropia is a factor in the production of concomitant convergent squint in children but it is not the determining one, this being the presence or absence of the fusion sense and that if the fusion sense is strong no amount of hypermetropia will cause strabismus; but with a poor fusion sense even a low hypermetropia may produce such a condition.

The fusion sense, as far as is known, is a function only of man and the higher orders of monkeys. Most animals have the eyes so placed that the visual axes are not intended to be parallel and really are used with much less interdependence than in man. This fusion sense in the human being shows signs of a slight development by the time the child is 6 months old and it will have usually reached full development by the time the child is age 6 years, therefore, if we are to develop this, and it must be developed if we are to have present physiologic binocular vision with good stereoscopic sense, and judgment of distance, we must start its training early.

There is another reason for having the child under observation and treatment early and that is the possibility of the lack of development of the function of the deviating eye.

Concomitant squint is of two types: Alternating, in which each eye is used as well as the other; one converging at one time and its fellow looking straight ahead; and these parts reversed at another time. In this type there is not likely to be any loss of sight from disuse. In the other type, which is known as the monocular variety, one eye is continually used and the other eye is continually converging and is not used

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

unless the preferred or fixing eye is deliberately put out of action in some way and then the visual act is performed by the deviating eye.

The first thing that is usually noticed by the parents of a child in the early stages of concomitant squint is frequently a change in the relations of the eyes which is present for a short time and then disappears. This is the stage which Worth calls "premonitory squint," and if actual deviation is occurring at these times, and it is not a mistaken observation on the part of the parents, this is the time that treatment should be instituted. The child very probably has considerable hyperopia and a partially developed fusion sense and if the hyperopia is so corrected as to relax the accommodation, and if the fusion sense is stimulated by training, a perfect cure frequently occurs with very little trouble. Parents usually are loath to believe that such an occurrence is happening to their child as they feel so sure the youngster will outgrow it that they delay seeking advice and much valuable time is lost.

The first thing necessary in the treatment of such a case is careful measurement of the error of refraction under a cycloplegic and as accurate a determination of visual acuity in each eye as can be made. Glasses should be prescribed to be worn continuously and if it can be determined that with the glasses the vision of one eye is less keen than that of the other the better eye should be tightly bandaged part of each day so as to force the use of the eye with less keen vision. This should be done as early as possible as the development of the fusion sense is much more easily accomplished before the child is age 6 than afterwards; in the greater majority of cases neither function can be greatly developed after age 6.

The loss of vision from disuse of an eye is probably the most serious result of this condition. In some of these children, the vision is so low that nothing can be recognized beyond the motion of a hand or the ability to count fingers a few feet from the eye. Though this is an extreme case, and vision is not usually this low, in at least half the cases, vision will be so low as to render the eye of little use for fine work of any description and will frequently interfere with employment. The best method of stimulating the vision of some of these unused eyes is completely to occlude the other eye with a tight bandage, as otherwise the child will do its best to use the preferred eye. In a young child the increase of the keenness of vision in these cases is usually very rapid. After age 6 its course is much slower and in the greater ma-

jority of cases after this age but little improvement may be expected.

The same may be said of the development of the fusion sense which may be considered to rate second in importance in the treatment of the physiology of this condition. Fusion training should be introduced as soon as a child is intelligent enough and this time will vary a great deal in development. It is seldom that much can be done along this line before age 3, but of course the hyperopia can be corrected and a sub-normal visual acuity increased long before this.

It may be remarked that until now nothing has been said particularly about the most noticeable feature of the condition and that which is most annoying to the parents, the deviation of the eyes. In the cases in which treatment is started very early, the squint will frequently disappear without any operation procedures. The longer the condition is allowed to go untreated the less likely is a good physiologic result to be obtained, and the more likely is an operation to be required to overcome the deviation. The operation may be done at any time at all. In a very small child a good result is difficult to obtain owing to the lack of development of the parts, although a good result may be obtained any time after age 2. Many operators prefer to wait until the child is age 7 or 8 as they feel they are then dealing with more developed muscles and a better operating field.

Fusion training in later years has been greatly developed with many new methods of stimulation, but in so many cases even the most advanced methods are useless because of the age of the patient and the fact that the age at which the fusion sense is plastic had passed before an attempt to stimulate it was made. It is to be remembered that the hope and expectations of the parents that the child will grow out of this condition can never be fulfilled until it is too late to obtain a normally acting ocular mechanism. At times in later life a convergent squint will disappear, but only because the effort to use one eye has been given up.

The greatest difficulty in getting a good result with these patients is frequently the difficulty with the parents. I know of four cases in which, in spite of every effort to obtain the consent of the parents to the use of the outlined treatment for a squinting child, for some reason it was delayed and in all 4 cases the children, now grown adults, have each a partially useless eye and 2 of them have a very noticeable squint. The other 2 were operated on later in life, whereas had the parents only been wise enough to have permitted early treatment of the condition, the vision in the amblyopic eye would have been

normal and possibly the visual axes straight without operation.

Amblyopia acquired from the lack of use of any eye may be present without deviation of the visual axes. Should one eye have a moderate error of refraction and the other eye a much greater one, the vision in the eye which is more out of focus may be distinctly subnormal even with an accurate correcting lens. These cases discovered early enough in the life of the individual may have the amblyopia overcome. Unfortunately, because there is no squint and they got along well with the one good eye the condition of the abnormal eye is frequently not discovered until too late for remedial measures. These cases, if they are going to have the vision of the undeveloped eye brought to normal, must have this work completed by the time the child is age 6 for it is seldom that after this age the amblyopia of such an eye can be improved.

The writer has seen the vision of such an eye improve from 5/60 to 5/9 in a boy age 12 whose condition was not discovered until that age at a school examination. The one eye had a moderate error of refraction; the other, 2 diopters of hyperopia with 4 diopters of hyperopic astigmatism; correction of this improved the vision to 5/30. Blinder exercises were ordered; the normal eye being tightly bandaged 2 hours a day and in 6 months the vision had improved to 5/9, at which it has remained.

A similar experience was also had with a girl age 8 and a boy age 9; but these are distinctly unusual. Ordinarily the age of 6 years, which Claude Worth placed as the limit for the successful prosecution of such measures holds good.

These 3 cases had developed a moderately good sense of fusion in spite of the difference of the vision of the 2 eyes and undoubtedly this was the reason all 3 children had never squinted. Recently the writer saw a man age 26 with 5 diopters of hyperopia in the right eye, with a corrected vision of 5/5; and 7 diopters in the left eye, with a corrected vision of 5/60. There is no squint at present and as far as he knows his visual axes have always been straight. He has a very weak sense of fusion, and it is in all probability this which prevented the appearance of a squint.

With these cases in mind, it is a sane suggestion that every child should have its eyes examined about the time it is age 4, even if squint is not present. The child by that time is old enough so that satisfactory visual tests may be made and should there be found a great difference in the refraction of the 2 eyes and amblyopia from disuse be present, the following 2 years will be sufficient to overcome this if possible measures are used. To accentuate: A case of strabismus should be under competent observation as soon as the condition is discovered and glasses should be worn when the child is old enough; frequently this is possible at one year of age; the eyes should be carefully watched for the loss of vision from disuse; training of the fusion sense should be started as soon as the child is old enough to be so managed; the visual axes can frequently be made parallel without operation; and operation only overcomes the deformity and does nothing towards reestablishing visual acuity or the sense of fusion.

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CORONARY DISEASE*†

CLINICAL DIAGNOSIS OF CORONARY DISEASE

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One of the medical advances of recent years has been the recognition of acute obstruction of the coronary vessels as a clinical entity distinct from the syndrome known as angina pectoris. This distinction has also served to clarify our understanding of coronary disease in general. Owing to the wide publicity given this subject it appears that the profession has become "coronary minded" and one frequently hears that coronary disease is on the increase. This per-

haps requires proof—after all the diagnosis is more frequently made because it is more often thought of; and a larger number of persons are surviving to the age at which coronary disease occurs. At the same time the percentage of coronary disease found at necropsy remains much the same as before.

The heart is supplied by the right and left coronary arteries and their branches. The coronary arteries arise from the aorta just beyond the aortic valves. There is a rather extensive anastomosis between their branches as well as between their terminal portions. The extent of this anastomosis differs in different indi-

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† Symposium presented at the request of The Pennsylvania Heart Association.

viduals and is doubtless responsible for the establishment or failure of establishment of collateral circulation when a coronary vessel has been occluded. In addition to the anastomoses between the coronary vessels and their branches, it is believed that a collateral circulation may take place through the small thebesian veins. It has also been shown there are some extra cardiac anastomoses with the parietal pericardium and with a network of small vessels in the adventitia of the aorta and the pulmonary artery. The latter communications are more prominent if adhesions exist between the parietal and visceral pericardium.

Coronary disease represents primarily and with few exceptions an arteriosclerotic process. This may be part of a generalized arteriosclerosis or vascular degeneration may be particularly advanced in the coronary vessels. Arteriosclerosis of the coronary tree is accompanied by narrowing of the vessels. As in diseased vessels elsewhere, thrombus formation may take place causing infarcts in the tissue beyond. Thrombus formation may develop gradually allowing time for a collateral circulation or it may take place suddenly causing complete absence of blood supply in the infarcted area. The most frequent positions for the formation of thrombi are in the anterior descending and circumflex branches of the left coronary and the terminal portion of the right coronary artery.

Rheumatism and syphilis play only a minor rôle in coronary disease. Syphilitic aortitis may cause anginal symptoms if it involves the coronary mouths—otherwise it is not a factor. The lesions of rheumatism are perivascular and sub-endocardial and rheumatism has only rarely a relation to coronary disease. Coronary disease rarely occurs among patients with mitral stenosis or in the subjects of auricular fibrillation, although auricular fibrillation as a sequel to coronary thrombosis is well recognized.

The clinical manifestations of coronary disease are dependent (as in arteriosclerotic disease elsewhere) on the narrowing of the lumen of the coronary vessels and on their obstruction by thrombus formation (more rarely by an embolus). Such obstruction may take place suddenly or gradually.

NARROWING OF THE LUMEN OF THE CORONARY VESSELS

This process may be responsible for a gradual and progressive decrease in the nutrition of the heart muscle and may give rise in course of time to the symptoms of cardiac insufficiency. Extreme narrowing of the coronary vessels may sometimes cause infarct formation even though

there is no thrombus. Arteriosclerotic thickening of the coronary vessels may also give rise to attacks of angina pectoris because the diminished coronary vessels are not able to deliver a full supply of blood to the cardiac muscle under stress so that a relative ischemia results, producing pain. It is not explained as yet why some patients with coronary arteriosclerosis should have congestive heart failure and others anginal heart failure. It is believed that in the latter group there is an increase of coronary tone under stress.

OBSTRUCTION BY THROMBUS FORMATION

Such obstruction represents the type of coronary accident most frequently observed. Thrombosis does not occur except in a vessel which has been previously subject to arteriosclerosis. It has been pointed out by Libman that the tendency to thrombosis is different from the tendency to arterial disease. Acute closure at the mouth of a coronary artery is usually due to syphilitic aortitis. In the infrequent cases of coronary occlusion caused by syphilis, the lesion is found in this location.

CORONARY DISEASE MANIFESTED BY CARDIAC INSUFFICIENCY

Cases of cardiac insufficiency dependent on coronary arteriosclerosis represent the type of heart which has been variously described as chronic myocarditis, chronic nonvalvular heart disease or senile heart. Through the interference with cardiac nutrition over a long period of time, cardiac insufficiency develops. If the narrowing of certain coronary vessels is extreme and the collateral circulation not free, cardiac infarcts may develop even though there is no thrombosis. It is also a fact not to be overlooked that post-mortem examination of the heart may reveal an extensive coronary sclerosis with myocardial fibrosis in which no symptoms of cardiac failure either congestive or anginal were present during life. It seems unnecessary to consider the symptoms of congestive heart failure caused by coronary disease since these do not differ from heart failure due to other causes. It becomes necessary, therefore, to select those findings which point characteristically to coronary disease. Such findings are: (a) The absence of other etiologic factors particularly rheumatic infection and syphilis. Hypertension is frequently associated with heart failure caused by coronary sclerosis, but not necessarily so. (b) The majority of the patients are in the middle and later years of life. (c) There is nothing characteristic in the symptoms except that they may be associated with attacks of angina pectoris and may be interrupted

by an attack of coronary thrombosis. The latter two complications are by no means inevitable. (d) The heart sounds are likely to be muffled although if one has not been previously acquainted with the patient, one should not lay too much stress on this finding. There may be gallop rhythm or an alternating pulse. The characteristic and well developed murmurs of valvular heart disease are usually absent. Such murmurs as may be present usually consist of a soft systolic murmur near the apex poorly transmitted, or a systolic murmur at the aortic area transmitted toward the right clavicle. (e) The electrocardiographic changes which represent a great variety of alterations in the ventricular waves are extremely valuable in helping to orient us as to this condition. They comprise a considerable number of changes such as prominent **Q**-waves, inverted **T**-waves, widening and deformity of *Q.R.S.*; derivation of *R.T.* or *S.T.* above or below the base line. In doubtful cases the electrocardiogram may be the deciding factor in diagnosis. On the other hand, the electrocardiogram should not be used in a prognostic way except in conjunction with the clinical findings.

CORONARY DISEASE MANIFESTED BY SUBSTERNAL PAIN ON EFFORT

This constitutes the syndrome that we have known for years as angina pectoris. Whether angina pectoris which represents only a symptom complex should be designated as a separate disease is questionable. At the same time the term represents such a definite entity that it is not likely to be dropped or altered. It is to be emphasized that the diagnosis of this condition rests entirely on the statement of the patient's symptoms and not on physical or laboratory findings. At the same time the subjective symptoms are so definite that if a patient's recital does not conform to them, the diagnosis of angina pectoris may be doubted. The symptoms of angina pectoris consist of a pressing or choking sensation in the substernal region after some form of overexertion which is promptly relieved by rest or nitrites. The sensation is steady and not intermittent or stabbing. It tends to radiate to one or both shoulders and arms and at times to the neck, jaw, or back. The feeling of oppression is always brought on by the same amount of exertion in the same patient. The physical findings are so variable that they contribute nothing to the diagnosis.

There are certain features that tend to relate the symptoms of angina pectoris to disease of the coronary vessels. These are: (1) The fact that coronary disease occurs in the middle and later years of life. (2) A considerable number

of cases of angina pectoris are associated with ventricular changes in the electrocardiogram which help to define the condition. (3) The pain of angina is similar in nature although not in degree to that of coronary occlusion. (4) Angina pectoris and coronary occlusion are frequently associated with each other. (5) Tying off a coronary vessel will produce pain whereas distention of the aorta will not produce pain. (6) In certain cases of pernicious anemia, in which condition the coronary circulation is at as great a pressure as that found in severe work, there are anginal pains. Most cases of pernicious anemia are not associated with coronary disease but, if they are, the increased work of the heart places the defective coronary vessels under stress so that anginal pain is produced. (7) The work of Rothschild and Kissin indicates that re-breathing experiments (*i. e.*, the production of anoxemia) in patients with angina pectoris produced precordial pain. (8) A few instances have been noted in which **T**-waves become inverted during an attack of angina pectoris just as after ligation of a coronary vessel or after the production of asphyxia. Considerable evidence has accumulated, therefore, to show that attacks of angina pectoris are due to failure of the coronary vessels to deliver a full amount of blood to the cardiac muscle under stress.

Since the diagnosis of angina pectoris is dependent on the patient's statement it is necessary that other chest pains not of coronary origin should be understood. Such for example, are the pains all too common of individuals suffering with neurocirculatory asthenia and anxiety states. In these cases the location of pain is usually to the left of the sternum and in the region of the cardiac apex. It is usually not brought on by any specific exertion. It is often of an intermittent, stabbing nature, and lacks the continuous character of anginal pain. It is likely to be accompanied by a tendency to hyperesthesia of the overlying area and a tendency to fainting attacks.

It is also necessary to distinguish between the pain of angina pectoris and that of acute coronary occlusion. Between the typical examples of these conditions this is not difficult. The duration of anginal pain is a matter of a few minutes; that of coronary occlusion may last many hours. Anginal pain is promptly relieved as a rule by rest or nitrites. The pain of coronary obstruction is relieved only partially and with difficulty by large doses of morphine. An attack of angina pectoris is not necessarily associated with any change in the heart sounds, pulse, blood pressure, breath sounds, temperature, or blood count. To differentiate between a mild occlusion and a severe attack of angina pectoris may be more diffi-

cult. In such cases the patient should be given the benefit of the doubt and treated as if the condition were an occlusion.

Certain attacks of angina pectoris are dependent on the sudden inception of a rapid rhythm, such as paroxysmal tachycardia, auricular flutter, or auricular fibrillation, in which pains may occur without effort and suggest coronary occlusion. The physical and laboratory characteristics of coronary occlusion are absent and one is guided also by the inception of a rapid heart rate without shock. The same thing may occur in certain cases of pernicious anemia in which the overwork of the heart in attempting to supply sufficient oxygen for the body is likely to bring on an attack of pain spontaneously or on the slightest exertion. In these cases, the characteristics of coronary obstruction are lacking and we are guided by the knowledge of the blood condition. Certain cases of cardiac valvular disease are disturbed at times by an aching sensation over the precordium. This sensation is not brought on by exertion and is not relieved by nitrites although sedatives and digitalis may relieve the symptoms.

CLINICAL MANIFESTATIONS OF CORONARY DISEASE CAUSED BY THROMBUS OR OTHER OBSTRUCTION

Obstruction of a coronary vessel may take place suddenly or gradually. When it occurs, the portion of heart muscle supplied by the affected vessel is cut off from its blood supply and an infarct with softening of the involved area develops. Such softening may extend inward to the endocardium. In this case a mural thrombus will develop on the endocardial surface. In the earlier weeks small portions of this thrombus may break off and give rise to embolism in the brain, spleen, kidney, extremity, or any other portion of the systemic circulation. If the infarct extends to the septum it may produce partial or complete heart block; it may extend to the pericardium and if the surface of the infarct is on the anterior aspect of the heart, frictions will be heard. If a collateral circulation is established in the infarcted area, healing with fibrosis takes place and is usually complete in about 8 weeks. At times, healing may be associated with weakness of the ventricular wall and a local aneurism in this region may form. If softening of the infarct continues more rapidly than fibrosis, rupture of the heart with sudden death may occur within the first two weeks.

The clinical picture of acute coronary obstruction, predicated on the infarct described, is accompanied by so many physical characteristics that it is easily recognized. The onset is usually sudden, often occurring at night after the patient

has gone to bed. There is usually no association with previous effort or if there has been, this is usually a considerable number of hours before. The patient feels a sudden terrific pain substernal in location of an agonizing and relentless character with radiation to the shoulders, arms, neck, or jaw. The pain has a tendency to be felt acutely under the lower end of the sternum toward the epigastrium. Though it may take place in a person who has been in good health, some of its victims have had attacks of angina pectoris. The latter individuals are often aware that something different from and of a more serious nature than their accustomed attack of angina pectoris is taking place. The pain is characteristic in that it usually lasts for many hours and is relieved only with difficulty by large and repeated doses of morphine. The onset may be accompanied by vomiting. Often there is shock and collapse with livid, moist skin, rapid thready pulse, and a decided fall in blood pressure.

In considering the symptoms of coronary obstruction, it should be borne in mind that these are not always of the typical kind previously described. The subjective symptoms may be very mild. In fact there may be very little to distinguish them from a rather severe anginal attack and the actual condition is realized only when an embolus has occurred at a subsequent date. At times there may be no pain at all—only a sensation of extreme weakness and dyspnea out of proportion to the physical conditions present. In some cases an attack is represented by the onset of acute pulmonary edema. In all atypical cases one will be guided by the physical and laboratory findings to be described. Not all these findings may be present but many of them are certain to be.

The most significant features in the physical examination are râles at the bases of the lungs and rapid feeble heart sounds which are sometimes associated with gallop rhythm or with an alternating pulse. Feebleness of heart sounds is of significance only if one has been acquainted with the heart sounds prior to the attack. The presence of acute infarct is indicated by fever, leukocytosis, and pericardial frictions. The fever and leukocytosis are transient phenomena, coming on in a few hours and lasting several hours or a day. They are both caused by the absorption of necrotic material from the infarcted area. To demonstrate fever in these cases it is necessary to take the temperature rectally since mouth temperatures during shock may be misleading. The leukocytosis is usually moderate (14,000 to 20,000). Pericardial frictions form a diagnostic sign if present, but they depend on the infarct reaching the pericardial surface on the anterior

aspect of the heart and are heard only in a comparatively small proportion of cases.

The electrocardiographic changes if present during the onset of the attack are striking and diagnostic. Some of these changes do not appear at the time of the acute attack but are noted some days later. In a very few cases, the electrocardiogram has at all times been normal. The number of normal tracings may, however, be fewer in the future through the use of chest leads. In any case it is fair to say that if sufficient clinical evidence of coronary thrombosis exists, a normal electrocardiogram does not stand in the way of a diagnosis.

About one-half of the patients suffering from acute coronary obstruction die in the attack. If they survive this, many are likely to recover. Up to the time of the healing of the infarcted area the patient is in danger of complications, although the most critical period is in the first few weeks. During this period there is a possibility of sudden death from rupture of the heart or from ventricular fibrillation. The mural thrombus may cause embolism in the brain, spleen, kidneys, or other portions of the peripheral circulation. The patient may succumb to congestive heart failure. Disturbances of rhythm may occur such as auricular fibrillation, extra systoles, or ventricular tachycardia. In some cases the patient though recovering from coronary thrombosis may succumb to general arteriosclerosis.

After the first 6 or 8 weeks, convalescence from acute coronary occlusion is usually well under way. Complete recovery is exceptional, but may occur. Usually the patient is obliged to live on a lower level of physical activity than before the attack and in fact may suffer from congestive heart failure. Recurrence of coronary thrombosis at a later period may take place and may produce a terminal accident. There is no condition in which prognosis is more difficult. The average length of life of patients who recover from coronary obstruction is 2 years but they may live up to 10 or 17 years longer. A patient apparently not very ill may suddenly die; another who has been severely shocked may recover. If the systolic blood pressure is 80 or below during an acute attack or if the mental changes are profound the outlook is usually grave. The character of the electrocardiogram does not materially affect the prognosis.

It becomes necessary at times to distinguish the findings of acute coronary thrombosis from

certain other acute conditions. The chief ones of these are acute inflammatory conditions in the upper abdomen and certain atypical cases of pneumonia. The acute conditions in the upper abdomen are likely to be perforated peptic ulcer, acute pancreatitis, or acute gallbladder disease. The pain in these conditions is in the epigastric and lower sternal regions as in acute coronary obstruction. It is also associated with shock. There is abdominal tenderness and rigidity in the affected area. Victims of coronary thrombosis, however, are usually more cyanosed than patients with upper abdominal conditions; and if the possibility of a coronary accident is kept in mind together with the findings in lungs, heart, and electrocardiogram, there should be little difficulty in diagnosis particularly if there is co-operation between surgeon and internist. Between atypical cases of pneumonia and acute coronary occlusion the distinction may be less clear as a number of findings will be similar in both cases. The location of pain, the presence of pericardial frictions, the character of the heart sounds, and the characteristic changes in the electrocardiogram will be usually sufficient to settle the difficulty.

SUMMARY

From the foregoing discussion it is apparent that coronary disease is an arteriosclerotic process with the attributes of arteriosclerosis elsewhere in the body but with certain particular features determined by the structure, functions, and relationships of the heart. The term "coronary disease" is a general one and has a pathologic rather than a clinical implication. If used for clinical diagnosis its meaning is not always clear. Moreover, it is possible that coronary disease may be present without producing symptoms, in the same way that a valvular heart lesion may be clinically inactive. It is likely in such cases that symptoms may never develop and the patient eventually die of some other disorder. For purposes of clarity, therefore, it is best to designate the manifestations of coronary disease as they appear to the clinician, and these take the form previously mentioned, of cardiac insufficiency, angina pectoris, and the acute condition with pain and shock caused by sudden occlusion. Each of these clinical states has certain well defined, recognizable characteristics, so that for the most part, its identification is readily practicable.

ELECTROCARDIOGRAPHIC DIAGNOSIS OF CORONARY OCCLUSION*

FRANCIS CLARK WOOD, M.D., PHILADELPHIA

The electrocardiographic method has two definite limitations in the diagnosis of coronary occlusion: (1) Acute cardiac infarction can occur without yielding electrocardiographic evidence of its presence; and (2) other conditions produce electrocardiographic signs similar to those of coronary occlusion. Clinical methods also have their limitations in the diagnosis of this condition: There are many cases which cannot be recognized by history and physical examination alone. There are relatively few cases which will be overlooked by a careful physician who has an electrocardiogram to help him and to supplement his clinical observations.

In the past, large acute cardiac infarcts have occurred without producing electrocardiographic signs of their existence. Recently, however, it has been found that certain of these cases can be diagnosed electrocardiographically, if an anteroposterior chest lead is used in addition to the conventional limb leads. Consequently this chest lead should be used in the study of all cases of suspected coronary occlusion.

within 2 minutes after ligation of a coronary artery. Therefore, in man, they should be present long before a tracing could be taken. We have had the opportunity of taking tracings in a few patients soon after the onset, *i. e.*, within 2 or 3 hours and, as our animal experimentation had led us to expect, the electrocardiographic signs of coronary occlusion were already clearly present. In some patients, however, the signs have been doubtful at first and have become much more definite after 24 hours. Whatever the explanation of this phenomenon may be, we have come to the conclusion that the best time to take an electrocardiogram in the average case of coronary occlusion is about 24 hours after the onset of the attack. The signs of acute infarction may persist for 7 or 10 days. Therefore, it may be worth while to take a tracing at any time during that period. One of the characteristic signs of coronary occlusion is a rapid change in the electrocardiogram from day to day. Consequently a repetition of the tracing in a day or two will often be helpful, if the first one is in-

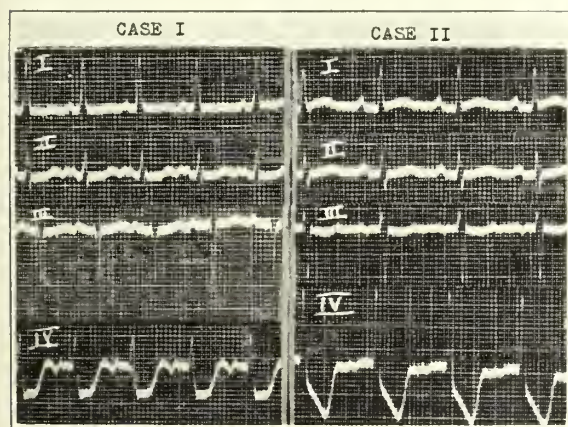


Fig. 1. Electrocardiograms of 2 cases, showing RS-T interval deviations in the anteroposterior chest lead (Lead IV) but not in the limb leads. This phenomenon occurred at some time during the course of 23 of 57 cases of acute coronary occlusion. Case I is presumably one of anterior infarction. At necropsy, Case II showed a large infarct in the anterior surface of the left ventricle, with obstruction of the left anterior descending coronary artery. Attack, Dec. 30, 1932; electrocardiogram, Jan. 7, 1933; necropsy, Jan. 24, 1933.

If the electrocardiograph is to be used intelligently, it is important to know at what period in the course of the disease the characteristic electrocardiographic signs are most likely to be elicited. There has been a good deal of debate as to the length of time required for these signs to appear after the onset of the attack. In the experimental animal, they make their appearance

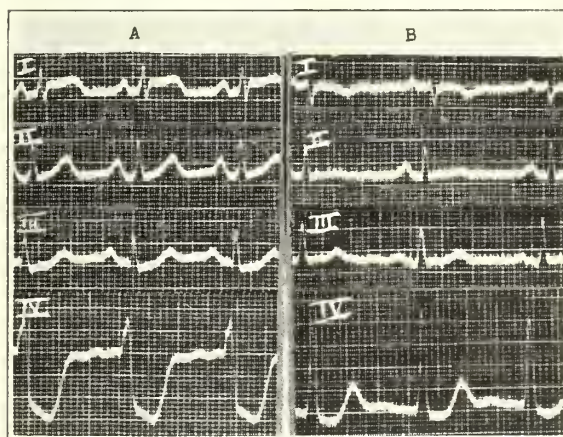


Fig. 2. Electrocardiograms of a case of presumable anterior infarction taken 3 hours after the onset and again 4 months later.

During the acute stage (A) the signs are: An elevation of the RS-T interval in Lead I; sometimes a depression of the RS-T interval in Lead III; an absence of the initial downward deflection and a depression of the RS-T interval in Lead IV.

After healing takes place (B), the RS-T interval deviations usually disappear; the T-wave is inverted in Lead I as a rule; Lead IV shows an upright T-wave (it is inverted in the normal) and often a continued absence of the initial downward deflection.

conclusive. After healing of the infarct has taken place, certain electrocardiographic signs, by which the lesion can be diagnosed, often persist for months. Because of financial or other reasons, many patients suspected of having coronary occlusion must be treated on that basis during the acute stage, without electrocardiographic study. In such cases, a tracing taken 6

* From the Robinette Foundation, Medical Division, Hospital of the University of Pennsylvania.

to 8 weeks after the attack will often fortify the physician in his diagnosis and help in decisions as to subsequent management.

It is probably possible to determine the location of a cardiac infarct in many cases, by means

in the 4 leads of one or the other of the 2 common types.

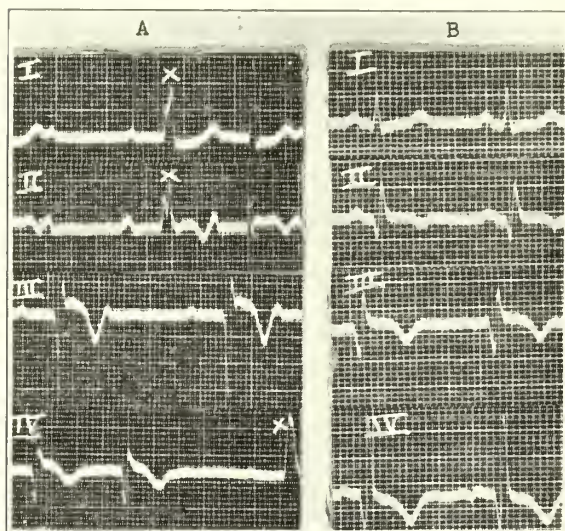


FIG. 3. Electrocardiograms showing the acute and healed stages of presumable posterior infarctions (18 cases):

During the acute stage (A) the signs are: Sometimes a depression of the RS-T interval in Lead I; an elevation of the RS-T interval in Leads II and III; a deep initial downward deflection in Lead III and often in Lead II; Lead IV sometimes is normal. X represents the aberrant complex. The initial downward deflection is preserved. If an RS-T interval deviation appears, it is an upward direction. Heart block, shown in this case, is more common in posterior infarction than in anterior infarction.

After healing has taken place (B), Lead I usually becomes normal. Leads II, III, and IV usually resemble one another, having a definite initial downward deflection and an inverted T-wave. (This is normal for Lead IV, but abnormal for Leads II and III.)

of the electrocardiograph. There are 2 common sites of infarction in the heart: (1) The anterior surface of the left ventricle, usually including the apex and the anterior portion of the interventricular septum; and (2) the posterior surface of the left ventricle. In our cases thus far, the electrocardiogram of each of these 2 types has been characteristic, and distinguishable from the other. The localization of the lesion may be of more than academic importance. In the group of patients we have studied there has been a clinical difference between the 2 types. The average anterior lesion seems to carry with it a much more serious prognosis than the average posterior one. Fairly complete recovery has been rare in the anterior cases, but not uncommon in the posterior type.

The diagnostic features of acute coronary occlusion in the electrocardiogram are: (1) Deviations of the RS-T interval from the iso-electric line; (2) changes in the tracing from day to day; (3) large upright T-waves in the chest lead. (4) The most important diagnostic feature is probably the presence of the complete picture

Result	Posterior Infarction (18 Cases)	Anterior Infarction (33 Cases)
Dead	3	14
Marked Restriction	2	13
Moderate Restriction	5	3
Status Practically Un- changed by the Attack	8	2
Not heard from		1

TABLE I.—A follow-up study of 52 cases of acute coronary occlusion. The cases of presumable posterior infarction show a small proportion of individuals who have died or who have been markedly restricted in their activity by their cardiac lesion. A large proportion have made a fairly satisfactory recovery. The cases of presumable anterior infarction show many individuals who have died, or who have been markedly restricted in their activities as a result of their cardiac lesion. Very few in this group have made a satisfactory recovery.

SUMMARY

(1) The electrocardiogram should be used together with the clinical examination of the patient in making the diagnosis of coronary occlusion. Either method alone is inadequate. Together these methods supplement each other and will enable one to diagnose the great majority of cases.

(2) A chest lead should be used in addition to the conventional limb leads in the electrocardiographic study of patients suspected of coronary occlusion.

(3) Probably the best time to take the tracing is 12 to 24 hours after the attack. Signs of acute infarction frequently persist for 7 to 10 days. After healing of the infarct, certain signs often remain by which the scar in the myocardium can be recognized and located.

(4) The location of an infarct can probably be determined in most cases from the electrocardiogram. This may be of practical importance, because it may have a bearing on both the immediate and the ultimate prognosis.

256 South Twenty-first Street.

Dr. Lloyd Arnold, of the University of Illinois College of Medicine, has stated that the high death rate from tuberculosis among girls in the age group 10 to 19 years is not due to the way girls dress or the dieting fad, but to the fact that girls in the adolescent period are physiologically more susceptible to tuberculosis than boys in the same group. Dr. Arnold has prepared charts showing that since 1870 (the first year in which vital statistics were collected in this country) the peak age for deaths from tuberculosis among girls was in the age group 10 to 14 years and it has remained in this group since. In 1870, there were 208 girls who died to each 100 boys in the group of children 10 to 14 years. Comparable figures were: 230 girls, in 1880; 250 girls, in 1890; 257 girls, in 1900; 262 girls, in 1910; and 255 girls, in 1920.

TREATMENT OF CORONARY ARTERY DISEASE

Including Thrombosis

CHARLES H. MINER, M.D., WILKES-BARRE

Coronary artery disease must be considered in its relation to general arteriosclerosis, as the causes of both are the same. In many cases, there may be evidence of marked sclerosis of the peripheral arteries without evidence or symptoms of coronary artery disease. The process may be generalized in some instances and sharply localized in others, as in the brain, or the heart. Arteriosclerosis is one of those diseases difficult to explain because it develops so slowly through long years of life, during which many possible causes have had an opportunity to affect the tissues. But the influences of heredity, to ravages of the aging process, to infections, to hypertension, to obesity, and to those changes in our environment incident to our civilization are to be emphasized, not because they are all the factors involved, but they are probably the most important etiologic agents. The hereditary tendency to disease is definitely shown in the liability of many families to develop cardiovascular disease caused by coronary sclerosis.

The most common cause of heart failure in persons older than 40 years is hypertension, and the majority of patients with essential hypertension are overweight. It has recently been emphasized that there is a definite syndrome in which obesity, hypertension, and hyperglycemia are associated with ultimate development of arteriosclerosis. The danger of obesity and the advantage of underweight are shown by the United States Public Health Service, report of August, 1933, that deaths from organic heart disease among those over 45 years of age are 253 per 100,000 for persons 50 pounds or more overweight; 213 for those of more nearly normal weight; and only 161 for those 25 pounds or more underweight. The heart disease death rate is also by far the highest for overweight men in age groups 30 to 45.

Many cases of heart disease are due to infections; pneumonia, typhoid fever, sore throat, and scarlet fever may cause not only the primary disease but, as a secondary condition, heart disease. The two great causes of this type of heart disease are syphilis and rheumatism. Prevention and proper treatment of syphilis have reduced the number of cases of syphilis of the heart, but many cases of syphilitic involvement of the heart muscle are still found. The greatest infectious cause of all, however, is rheumatism, and the involvement of the coronary arteries in this disease has been frequently demonstrated. Senility

is largely a question of arteries and the changes in the arteries of the heart are of more importance, as far as life is concerned, than are those of any other organ in the body.

Members of families with a history of degenerative types of heart disease should be supervised to prevent, as far as possible, the infectious diseases of childhood, including also rheumatism, pneumonia, influenza, and focal infections caused by diseased tonsils, infected teeth, sinus disease, and genito-urinary infections.

Regular health examinations would be of great value in prevention of family tendencies to overweight, to unnecessary strain in school, and in business and professional life. Regular vacations should be urged and the excessive use of tobacco, tea, coffee, and alcohol prevented.

As we know nothing that will restore a diseased artery to a healthy state we should do everything possible to prevent the development of arteriosclerosis. The need of preventive measures is so great that we should urge the medical profession, especially the general practitioner, to take on a new responsibility in frequent examinations of his families, especially if he knows of a hereditary tendency to heart disease. It is the responsibility of the practicing physician to be constantly on the outlook for this tendency and to teach the possibility of prevention.

Heart disease caused by coronary sclerosis usually manifests itself first with symptoms of cardiac insufficiency, or with cardiac pain. The treatment of the early stages of cardiac failure include the restriction of physical activities and the administration of digitalis in moderate doses. Protection against upper respiratory infections, rest, relaxation, and sleep, have a decided influence on the course of the disease. If auricular fibrillation develops, the ventricular rate should be brought to normal and maintained with adequate digitalis dosage. Later, many patients develop congestive failure and the management of this complication is the same as that of advanced heart failure from other causes.

The nervous person usually develops the anginal syndrome much earlier than one who has a more stable nervous system. Hurry and worry are leading causes of the trouble, and serious responsibility in business or professional life aggravates the disease. The treatment of angina pectoris consists in the control of the attack and measures for prevention of the occurrence. If the attack is brought on by exertion, even if

slight, the exertion should be stopped. Nitroglycerin, grain 1/100, frequently gives prompt relief from an attack and should always be available. At times the use of a tablet of nitroglycerin just before exercise likely to cause pain will allow the patient to go through it without discomfort.

A rest period in the middle of the day is very important as it will do much to prevent fatigue which is undoubtedly injurious to the patient. Eight hours sleep at night is the minimum that should be required and should be of a sound and peaceful nature. This is essential and to induce it we sometimes advise a warm bath followed by a hot drink before going to bed. If this is not sufficient one may resort to bromides, chloral, or barbituric acid compounds in sufficient doses to produce a comfortable sleep. For the patient who is able to be up and about, a moderate amount of exercise is usually advisable, but it should be taken according to careful direction. Generally a walk of two or three miles a day is sufficient. For the more vigorous, golf and horse-back riding may be allowed. Spasmodic or violent exercise at week-ends or at other irregular intervals is decidedly undesirable and may cause an attack of angina or fatal thrombosis.

Those who are unable to take their own exercise are often helped by regular massage with resistant exercises. The regulation of the diet is extremely important. Overweight should be avoided at all costs and a few pounds under the average weight for height, age, and sex should be the objective. In prescribing diets, it is important to emphasize and make clear to our patients, that foods high in protein do not raise blood pressure, but that carbohydrates and fats tend to increase weight and thus add to the heart's burden.

In the more severe forms of angina pectoris, every available means should be emphasized to reduce the work of the heart and improve the efficiency of the myocardium. Coronary dilators, as theocalcin and metaphylline, are often of great value and help to delay the progress of the disease. It has been shown experimentally that these drugs definitely dilate the coronary arteries, increasing the flow through these vessels. Each patient's work and his physical and mental reaction to his business or profession should be studied. A reduction in the time and amount of work, elimination of the factors tending to mental and emotional strain, and frequent periods away from work will often permit the patient to carry on much of his usual activity.

Alcohol is an old remedy for anginal pains but overindulgence is distinctly harmful. The

bromides with small doses of the barbituric acid compounds are often useful in preventing the symptoms in early cases. The use of morphine hypodermically should be reserved for those patients who are not relieved by full doses of nitroglycerin and in whom the possibility of a thrombosis is strongly suspected.

In recent years considerable attention has been given to the surgical treatment of the intractable pain of angina. The aim of the various methods which have been used is the interruption of the afferent nerve fibers which convey the impulses arising in the heart. Paravertebral alcohol injections is the method of choice to block the pain sensations transmitted to the central nervous system through the sympathetic pathways.

Coronary thrombosis is closely related to angina pectoris and always occurs in previously sclerosed coronary arteries. As soon as the diagnosis is made the treatment is obvious.

There must be quick relief from pain with morphine in sufficient amounts to relieve the pain and induce sleep. The patient should be kept comfortable after the first narcosis wears off by repeating the opiate as often as needed for the first few days. Shock should be combated by external heat, and complete rest of the entire body and mind is essential until the first emergency is past. This is not until the temperature and leukocyte count have returned to normal.

Sitting up or exercise should not be allowed until the process of healing is well under way, a period of 6 to 8 weeks. Stimulants are to be avoided if possible, but if the heart is not strengthened by the morphine, moderate doses of caffeine sodium benzoate should be given. Intravenous use of hypertonic glucose solution, 10 to 40 c. c., is advised by some in cases in which shock is the outstanding sign. This may be repeated daily for several days if it appears helpful. Digitalis may be of great benefit if there is evidence of congestive failure with basal râles and dyspnea, but it is usually to be avoided.

In atypical cases, the pain may be slight or even entirely absent and may be replaced by sudden attacks of dyspnea with shock. Here the treatment is the same but smaller doses of morphine may be sufficient, and oxygen might be of great benefit. During convalescence, theocalcin is helpful in establishing a better coronary circulation and should be continued after the patient is permitted to be out of bed.

In reviewing a number of recent cases we can report that a number of those who survive their first attack recover sufficiently to resume their former activities, some have more or less cardiac disability and many have typical angina pectoris for the remainder of their lives. Now that the

early diagnosis of coronary sclerosis is more frequently made the outlook is much more hopeful.

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ABSTRACT OF DISCUSSION

CHARLES C. WOLFERTH (Philadelphia): An important point about coronary artery disease was made by Dr. Miner, namely, that arteriosclerosis is often patchy rather than generalized in its distribution. It may involve the coronary arteries to an extent, whereas the peripheral arteries or even the aorta may show no changes. This point has often come up for discussion. Doctors ask, "How can this patient have coronary artery disease, since he has no increase of blood pressure and no evidences of arteriosclerosis elsewhere?" Nevertheless it is not uncommon for coronary disease to occur without evidence of arteriosclerosis elsewhere.

Dr. Schleiter's classification of the clinical types of coronary disease into myocardial insufficiency, angina pectoris, and coronary occlusion, deserves particular emphasis. Coronary occlusion is often a dramatic episode; our attention is called to it and our minds are greatly impressed when we see patients with the striking symptoms which have been described. Many patients with coronary occlusion do not have these dramatic episodes. There is a form in which the symptoms are mild and easily overlooked. A patient may have pain for a few hours or for half a day which may not be severe, and yet if we watch that patient carefully and take leukocyte counts and an electrocardiogram we obtain sufficient evidence of coronary occlusion to verify the diagnosis. Many patients suffer coronary occlusion without seeing a physician. The slowly developing occlusion, usually of a coronary twig, may give no symptoms whatever. The pathologist who looks for evidence of this finds it, but the pathologist who does not look for it does not find it since the scars may be small and easily overlooked. This is probably the process which eventually causes cardiac insufficiency in many cases of coronary disease.

Coronary disease is a serious problem. It attacks business and professional men who carry heavy responsibilities. It is important that it be studied along the lines mentioned by Dr. Schleiter. We do not know what part alcohol plays; though we are very sure that obesity, strain, worry, and tobacco may be etiologic factors. It is difficult properly to evaluate these or other etiologic factors which may be concerned, because not only is the development of the disease slow but its presence is not recognized until it is relatively advanced.

WILLIAM D. STROUD (Philadelphia): An interesting point is Dr. Schleiter's statement that rheumatic fever had nothing to do with coronary disease and Dr. Miner's statement that it was a very large factor.

Dr. Levine's recent monograph in *Medicine* presented evidence that few patients with coronary occlusion gave a history of rheumatic fever, and yet work at Cleveland has shown definite evidence of disease of the coronary vessels in children who died of rheumatic fever. It is still an open question, and many of us believe that the streptococcus and rheumatic fever may play a definite part in coronary disease.

The recent work of Blumgart and Levine in Boston will perhaps play a part in the treatment of patients with coronary disease and anginal pain or congestive circulatory failure, namely, the removal of the thyroid gland even with a normal basal metabolism. They feel that many patients with angina pectoris or evidences of coronary disease are unable to get around with even a normal metabolism, and they have emphasized the fact that by removing the thyroid gland and dropping the metabolism below normal, such patients can be kept free of these symptoms. After a complete thyroidectomy, some patients have been able to get around, although they had been completely incapacitated for more than a year because of these symptoms. Signs of myxedema can be prevented with thyroid extract. This is a problem that will have a great deal of discussion in the future and should be kept in mind, although we should not be overenthusiastic about sending all patients with heart symptoms to a surgeon for operation.

STUDY OF COMMISSARY-FED CHILDREN IN A CENTRAL PENNSYLVANIA TOWN

A Preliminary Report

MARY RIGGS NOBLE,* M.D., HARRISBURG

In the emergency conditions which prevailed in Pennsylvania as elsewhere in 1932, it became increasingly apparent that the many wholly dissimilar methods of food distribution, which were current, and at varying costs per capita, were due to give way to something more systematic with the advent of Federal funds and Federal regulations. The State Emergency Relief Board undertook to establish uniformity, and reduce the per-capita cost to the lowest point consistent with maintaining a satisfactory physical condition.

The studies which were undertaken by the Department of Health at the request of the Govern-

nor concerned themselves with the examining of children in families on relief in communities in which the *commissary method* of food distribution was established and controlled by the State Emergency Relief Board. We are not concerned with any comparisons as between *methods*, but only with trying to answer the query as to the *effect* of commissary rationing with a calculated caloric content and a correct proportion of necessary food factors according to age. Was the children's ration, based on an assortment of inexpensive and wholesome foods, as finally worked out and approved by the doctors on the Board, adequate for growth and development is the question to which we addressed ourselves.

* Chief, Preschool Division, State Department of Health.

If in the end no sharply defined answer can be made from such a study, at least most valuable information will have been secured from a fair sized human sample of little ones from age 2 to 10.

In order to reduce sources of error in such a study as much as possible, physicians were detailed who were experienced in making physical examinations of infants and preschool children. Uniformity of procedure was conscientiously sought and consultation among themselves was resorted to in heart and lung findings, or in other cases, in which doubt existed. Every effort was made to use current and up-to-date information for adjudging such matters as posture and general condition and in appraising the whole child. The nutritional status of the child was gauged by a special assembling of all possible signs apart from the tale of the scales. Departure from the expected weight was not made the basis of judgment as to good or bad nutrition.

The same physicians did the work throughout and each saw the same children on return visits to communities and also, throughout, the same nurses filled their rôles on the staff. All children were undressed for examination and parents were almost uniformly present.

In this first study there were doubtful items in some records which necessitated the discarding of a number of histories, in the interest of exactness. The making of the records as well as the various details of the examining grew more uniform as we proceeded, so that the last studies are, naturally, sure to be more reliable than the first ones. The utmost conservatism in making deductions has been practiced and an effort has been made to weigh carefully unrecordable factors which might modify conclusions. Expert social investigation of the group of children studied and, quite as important, a parallel group of children as a control, would, if available, have shed much desired light. There could be no control group. Children on relief could not, naturally, be compared with children not on relief, and all children on relief in any one town were fed after one method. There seemed no way of securing a group with which to check.

The children on relief doubtless were better fed both as to quantity of food and as to "balancing" factors than many children in families not economically needy. Also, it is probably true that a very large percentage of the children were better fed on these commissary rations than they had ever been before. Disadvantageous as this method of food distribution may be considered to be from certain social standpoints, the

younger children would probably suffer less than adults from such intangible concomitants.

A word should be said about the dietary which was being supplied at the time of this study. Disregarding schedules of adult and adolescent diets, the food allowances for the children were as follows: A minimum of 1400 calories per day was supplied; fats, 30 to 40 per cent; carbohydrates, 40 to 52 per cent; and protein, animal and vegetable, 12 to 18 per cent. The following sample ration shows how "balance" was secured. One week's allowance in March, 1932, included rolled oats, potatoes, onions, turnips, eggs, bread, sugar, butterine, cocoa, peanut butter, and cod liver oil. One quart of milk a day was allowed to every child and also two pounds of government flour were allotted. Changes in the vegetables occurred and some choices were given. Also occasional meat allowances were made. This dietary was approved by the physicians of the State Emergency Relief Board. No discussion of its virtue or otherwise is pertinent in this paper. Do children thus rationed grow and gain properly?

The first visit to the town in question was made in December, 1932. A second visit was paid in April after 3 months had elapsed. In general much more satisfactory physical conditions were found on this spring visit, but because of the short interval which had elapsed it was deemed wise to withhold any judgment as to what could be learned regarding growth and gain in weight until 6 months had elapsed. The third visit occurred in June, 1933. This report deals only with the findings on the first and last visits with 6 months elapsing between.

The number of children presenting themselves at the end of the 6 months' interval for reexamination was, unfortunately, much smaller than the original number, 994.* For the second examination 460 children presented themselves; 65 of these only had foreign-born parents. Of these the Italian group was the largest, 47. The group was almost equally divided as between boys and girls, 232 boys and 228 girls. All but 3 were white children.

First examination: 236 in good condition.

Second examination: 270 in good condition.

First examination: 188 in fair condition.

Second examination: 172 in fair condition.

First examination: 35 in poor condition.

Second examination: 15 in poor condition.

In classifying according to their general condition, the usual groupings were made into 3 classes: good, fair, and poor (see Table I). Of

* Children in 7 other communities have been studied, first examinations having been finished in all. Return visits are occurring in due course. The final studies will not have been made until the spring of 1934.

the 460 children reexamined, 236 were found to be in good condition on the first examination. This group was increased to 270 in the second examination. Those rated as being in fair condition on the first examination, numbered 188.

mal posture has been done. The first visit served to sharpen our sense of need, and on the interim visit in April more intensive work was done with personal instruction by an expert physician from the Federal Children's Bureau, and the added

TABLE I.—Classification by Ages and General Condition

Total number of children reexamined, 460									
Ages	2 and 3 years		4 and 5 years		6 and 7 years		8 and 9 years		10 years
Totals	82		101		123		125		29
	1st	2d	1st	2d	1st	2d	1st	2d	1st 2d
Good	48	63	61	61	55	64	59	68	13 15
Fair	31	19	36	39	57	50	51	49	13 14
Poor	3	0	4	1	11	7	15	7	2 0
					(2 unstated)		(1 unstated)		(1 unstated)

This group was smaller, or 172, in the second examination. In the first examination 35 children were found to be in poor condition. This group showed but 15 in the second examination. These figures would seem to indicate that 36 children had moved up from less favorable conditions. The "poor" class was decreased by 57 per cent. The youngest groups, the two, three, and four-year-olds, showed no children in "poor" condition on the second examination.

help of recent publications. These two things helped to bring about far more exactness and uniformity in appraisal.

The total number of children found to have A posture on the first examination was 14; in the second the A's had increased to 30 in number.

B postures in the first examination numbered 323. This B group is a broad one, including children with very nearly A posture at one end and almost C at the other. The B's at the

TABLE II.—Classification by Age and Showing Average Gain or Loss of Weight in Pounds

Age	No. examined	Gained	Average gain per child	Lost	Lbs. lost per child	Stationary	Unclassified
2 and 3 years	82	60	1.7	12	1	10	..
4 and 5 years	101	47	1.4	29	1	25	..
6 and 7 years	123*	68	1.7	37	1+	17	1*
8 and 9 years	125	97	2.2	16	1	12	..
10 years	29	21	2.6	6	1	2	..
Total	460	293	....	..	..	..	..

* 1 unclassified.

If the gain or loss in weight is analyzed in Table II, the following facts are found:

Total number of children reexamined: 460.

Lost weight, 100

Stationary in weight, 66

Unclassified, 1

36 per cent

The largest group showing gain were the seven, eight, and nine-year-olds. Fourteen of the nine-year-olds gained more than 3 pounds each.

In classifying the children accordiag to posture the staff felt very keenly the need of more up-to-date information in order to be able to appraise properly the younger children, because so much less standardizing of the little child's nor-

second examination numbered 380. The C and D groups numbered 119 in the first examination and only 39 in the second. It thus appears that 80 children of these 2 classes moved up into better posture groups. Seventeen histories were discarded because of errors.

In view of the better knowledge gained between examinations doubtless our judgment was materially improved. The shift of C's and D's to A or B classes cannot be unequivocally taken as indicating change of status in the children so much possibly as more enlightenment in the doctor's way of judging.

Table IV shows the gains in height made according to ages. The 2 and 3-year-olds grew on an average of 2 to 3 inches per child. The 4

TABLE III.—*Table Showing Classification by Age Groups According to Posture*

Total number of children reexamined, 460										
Age	2 and 3 years—82		4 and 5 years—101		6 and 7 years—123		8 and 9 years—125		10 years—29	
	1st	2d	1st	2d	1st	2d	1st	2d	1st	2d
A	3	5	2	3	3	12	4	8	2	2
B	64	73	79	85	84	98	83	101	13	23
C	14	1	18	13	32	9	34	10	10	3
D	0	1	2	0	4	1	3	0	2	1
Uncl. .	1	2	0	0	0	3	1	6	2	0

and 5-year-olds grew on an average of $2\frac{1}{4}$ inches per child. The 6 and 7-year-olds grew on an average of 2 inches per child, 2 children in this group growing 5 inches or more. The 8 and 9-year-olds grew 1.8 inches per child and the 10-

children with enlarged cervical glands jumped from 167 to 244.

The notable decreases were in heart and lung defects, both happily small groups, from 33 to 17 hearts and from 32 to 10 lungs.

TABLE IV.—*Classification According to Age Showing Growth in Height*

Total number of children reexamined, 460				
Age, in years	Number	Gain, in inches	Average per child, in inches	Stationary
2 and 3	82	193	2.3	..
4 and 5	101	228	$2\frac{1}{4}$	..
6 and 7	123	258	2.0	2
8 and 9	125	238	1.8	1
10	29	49	1.7	1

year-olds grew 1.7 per child. Four school children remained stationary in height. The pre-school children all grew.

Table V shows the comparison between the defect findings on the two visits sorting the children into age groups.

TABLE VI.—*Classification of Children by Age Groups as Referred for Treatment*

Total number of children reexamined, 460					
Age	No. of children	First examination		Second examination	
		Yes	No	Yes	No
2 and 3 yrs.	82	31	51	20	62
4 and 5 yrs.	101	40	61	43	58
6 and 7 yrs.	123	64	59	61	60
8 and 9 yrs.	125	64	61	70	54
10 yrs.	29	8	19	14	15

Of the 460 children, 207 were referred for medical attention at the first examination (Table VI). The number referred on the second examination was 208. It is regrettable that more of the first examinees did not return. We can probably never know whether the best children

TABLE V.—*Showing Classification of Defects by Age Groups in Two Examinations*

Total number of children reexamined, 460														
Ages	Eyes		Teeth		Tonsils		Neck Glands		Thyroid		Heart		Lungs	
	1st	2d	1st	2d	1st	2d	1st	2d	1st	2d	1st	2d	1st	2d
2 and 3 yrs. (82)	6	9	17	18	44	45	26	39	1	0	5	3	8	0
4 and 5 yrs. (101)	13	13	43	44	60	65	41	54	4	3	8	3	7	0
6 and 7 yrs. (123)	21	16	67	68	73	70	51	74	7	10	8	7	6	3
8 and 9 yrs. (125)	16	14	96	96	63	65	41	64	11	16	10	4	10	7
10 yrs. (29)	3	3	17	18	9	9	8	13	5	4	2	0	1	0

The following facts emerge: Eye defects which totalled 59 on the first visit were reduced on the second to 55. The number of children with dental caries increased from 240 to 244. Faulty tonsils increased from 249 to 255; children with enlarged thyroid increased from 28 to 33 and, most conspicuous of all, the number of

were in the group who stayed away, and whether they had the most attention after the first findings.

It is to be remembered that this report is but a segment of a much larger study, and necessarily falls short of answering the original question as to dietary adequacy. The group of children

studied was very small, and in only one community. Six months is too short an interval to settle questions of growth and development.

One immediate value of this part of the work was to the community itself. It brought to the surface information as to the amount of malnutrition present in young children of a specified underprivileged group, together with the discovery of physical defects needing attention and which the community could take steps to remedy.

In other words, local action growing out of this study, and based on reliable findings, was a result which was of real and *immediate* value, whereas the remote value, from a research standpoint, must be postponed until the study of the eight localities has been finished. Some of the hindrances to deductions will then have been automatically annulled in part at least.

State Department of Health.

INFLUENCE OF THE ANESTHETIC ON THE RISK OF OPERATION*

GEORGE P. MULLER, M.D., PHILADELPHIA

Generally, the patient and his family and usually the family physician often are more concerned about the anesthetic than the hazard of the operation. Usually we must listen to the question, "Will the heart stand an anesthetic?" The psychic factor, the renal function, liver damage, or lung involvement are rarely considered although the mere possibility of tuberculosis of the lung is seriously considered as a contraindication to the use of the volatile anesthetics. Surgeons are dependent upon smooth anesthesia for a smooth operation. As local anesthesia has a rather limited field, the average operation should be done under ether, gas, avertin, or spinal anesthesia.

There are some operations such as those for acute appendicitis, perforated ulcer, strangulated hernia, and so on, in which the necessity for saving life is paramount to any other consideration. There are others, such as in jaundice from an obstructed common duct, diabetic gangrene, hyperthyroidism, and so on, in which the influence of the anesthetic has a marked influence on the operative risk. There are still other operations, such as for hernia, chronic appendicitis, and so on, in which the time of operation is entirely elective and hence the anesthetic may be considered carefully and at leisure. As a general proposition patients at the extremes of life do not take anesthetics well. Children easily fill up with mucus because of the irritation of their sensitive mucous membranes; and old persons do not stand anesthetics well because their cardio-renal mechanism often is on the verge of breakdown and because of their susceptibility to respiratory affections. "If a nontoxic, nonirritating, easily administered, safe, controllable agent constitutes the ideal anesthetic then we have today no agent which we could thus classify. Each

anesthetic agent at our command has one or two unsatisfactory characteristics. The choice of the best anesthetic agent depends upon a knowledge of the action of the various anesthetics, a thorough understanding of the pathologic processes present in the patient and the character of the operation proposed. The final choice of the agent or combination of agents should be those that would expose the patient to the least amount of harm and give him the greatest chance of getting well." (Saklad.)

The most generally used anesthetic for major operations is ether and in average hands it is the safest. It acts as a cardiac stimulant in good risk patients and produces an increase in the pulse rate and a rise in blood pressure. In poor risks the blood pressure falls. In anesthetic doses the amplitude of respiration is increased but an overdose produces a marked diminution in rate and amplitude. It is well known that locally ether acts as an irritant, increasing the mucus and under certain circumstances tends to favor postoperative pulmonary complications. It depresses the liver function if the anesthesia time is prolonged and deep ether anesthesia inhibits kidney function, the blood urea being markedly increased. It produces a marked rise in the blood sugar and hence is now considered contraindicated in diabetes. It will thus be seen that ether is contraindicated in pulmonary disease, vascular diseases, and in the presence of marked disease of the kidneys and liver. It should be avoided in those diseases associated with deficient carbohydrate metabolism.

Nitrous oxide and ethylene exert no toxic action on the body but are associated with varying degrees of anoxemia and cause a marked rise in blood pressure. They should not be used in arteriosclerosis with hypertension. My experience with these gases is that except for induction, or when used as a basal anesthetic reinforced by

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

a local anesthetic, they are useless for abdominal operations by reason of persisting rigidity not only during the operation itself but more particularly during the suture of the wound. In intestinal obstruction the toxic state of the patient would seem to make the combination of local and gas anesthesia ideal but manipulation of the intestines produces a straining reaction making it almost impossible to effect the suturing. In spite of its primary risk, spinal anesthesia in these cases is better. In the case of operations on the chest, particularly thoracoplasty, I prefer avertin followed by local or gas anesthesia; in the case of toxic goiter I prefer avertin and gas anesthesia.

I have had little experience with the barbiturates although sometimes I have used them as basal narcotics. Avertin has been a constant source of joy in certain diseases of which toxic goiter and pulmonary tuberculosis are the chief. If properly given the induction is perfect and the patient comes to the operating room sound asleep. It induces no pulmonary or cardiac complications which may be attributed to the avertin. It is essentially a basal anesthetic. The fall in blood pressure is slight, it does not damage the liver and only slightly depresses kidney function, and that temporarily. It produces a moderate degree of relaxation. It is particularly indicated in the presence of respiratory disease but seems to be contraindicated in any disease of the rectum or colon by reason of its local irritative properties. The present opinion contraindicates its use in patients suffering from advanced renal or liver disease.

Spinal anesthesia has attracted great interest in recent years. It has a spectacular interest. There is something fascinating to patient and surgeon in the fact that the subject is entirely conscious and yet has no sensory response to the cutting and crushing effect of operation. Perhaps I should modify this statement because many patients while feeling no pain, have preserved the reaction of manipulation and interpret it as pain. Motor relaxation is perfect, and hence abdominal operations can be performed with the utmost facility. The operative time is limited to one hour. Nausea and vomiting frequently occur during the time of anesthesia and headache is a fairly frequent complication. The greatest danger associated with spinal anesthesia is the fall of blood pressure caused by paralysis of the vasoconstrictor fibers to the splanchnic blood vessels. Even though the Trendelenburg posture and such drugs as adrenalin and ephedrine will raise the blood pressure, yet this anesthetic has potential danger beyond that of ether or the gases. It is the anesthetic of choice in

diabetic gangrene, in prostatectomy, and in my own experience in intestinal obstruction. In small doses it is perfect for hemorrhoid, fistula, or fissure operations. In any operation below the waistline it can be given with safety, but for gallbladder or stomach operations the necessary height of anesthesia opens up its dangerous possibilities. Contrary to casual opinion the occurrence of postoperative pneumonia is as frequent after spinal as after ether anesthesia.

If we approach the subject of anesthesia in its relation to the patient we are confronted by so many factors in each case that only a study of each patient determines the best anesthetic for that individual. Between the ages of 5 and 15 but little concern is felt. The patients are young healthy animals without the wearing effect of nervous strain, excesses, or organic diseases of heart, kidney, or liver. From then on the effect of the anesthetic may place an additional burden on the organism until in those past age 60 it becomes the paramount burden.

The fear of operation is important because in the excessively nervous patient the induction of anesthesia is difficult and the anesthetist is apt to force the anesthetic. The use of morphine for preliminary medication has been in use for some time and more recently the barbiturates, especially sodium amytal and nembutal are being used more frequently. Avertin is especially useful in very nervous patients, in toxic goiter cases, and in plethoric individuals in whom nitrous oxide anesthesia is contemplated because in them it is often necessary to cut down the oxygen percentage to such an extent that a severe, sometimes fatal anoxemia may result. Local anesthesia may be used in any case without injury and in young organically healthy persons gas induction followed by open drop ether produces no ill effects provided the patient is not suffering from an acute cold.

Ordinarily, if anoxemia is avoided by careful anesthesia the usual physical examination and simple laboratory tests suffice to anticipate any possible anesthetic complications except the postoperative pneumonia often erroneously termed "ether pneumonia." Sufficient emphasis cannot be laid upon the necessity of avoiding any operation under anesthesia in the presence of a cold, except those operations of necessity. In acute appendicitis or strangulated hernia I use spinal anesthesia, sometimes local for the hernia. Though it is true that pneumonia occurs after spinal anesthesia, the risk is much less than after ether in the presence of an acute respiratory infection. Patients with colds and facing an elective operation should be sent home for a week or two. In certain diseases, ether affects the

risk. Toxic goiter patients should be anesthetized with avertin as a basal and local or gas as a complementary anesthetic. Diabetics should not have ether nor should those with deficiency in liver function especially the jaundiced, have ether. Theoretically these patients should be given nitrous oxide and oxygen because this combination is not prone to cause acidosis, only slightly changing the blood sugar and metabolism. Practically it is difficult to perform a high abdominal operation under gas-oxygen and hence the surgeon is between Scylla and Charybdis. Careful local anesthesia of the abdominal wall seems the best solution; although some surgeons prefer spinal anesthesia taking the risk of the fall in blood pressure so commonly observed. The operation in the stone obstructed common duct with jaundice and a damaged liver should be free from extensive manipulation. In diabetic gangrene spinal anesthesia is perfect. In the diabetic carbuncle, gas oxygen is usually preferred with due regard for the explosiveness of the mixture if the cautery is used.

The preliminary preparation of diabetics, toxic goiter, and jaundiced patients is the important factor in eliminating much of the risk of anesthesia and many days should be occupied with this preparation.

In older individuals, the effect of anesthesia on the heart and kidneys has been widely discussed. The general opinion leads us to the conclusion that no anesthetic has any damaging influence on the normal heart and a damaged heart is safe from the effects of anesthesia if it is carrying on an adequate circulation under normal conditions of life. If the history indicates congestive heart failure, that is, dyspnea on exertion and edema of the extremities, preliminary medication with digitalis and diuretics should be given. If this "heart failure" is pronounced with fluid accumulation in the serous cavities no operation should be considered except for the most urgent indications. Auricular fibrillation requires preliminary treatment. Digitalis should not be given preliminary to operation in all elderly persons. Dropped beats in older patients should lead to electrocardiograph study before operation. The important thing to remember about anesthesia in cardiac patients is that the induction of the anesthetic must be smooth. Cyanosis, struggling, and mucus in the throat with sudden rise in blood pressure constitute the danger to these patients.

High blood pressure is often considered as a contraindication to operation but of itself this is not exactly true. More suggestive is the fact that a high systolic pressure may indicate ne-

phritis, myocarditis, aortic disease, *etc.* On the other hand high diastolic readings are of great significance because definite myocardial change seems to be generally associated with a high diastolic pressure. Local anesthesia, without adrenalin, and ether are the safest anesthetics but gas-oxygen is reasonably safe except for those patients who have high diastolic pressures.

The routine study of the urine, functional tests, blood pressure estimations, and careful study of the history should never be omitted in patients past age 40 particularly if there is evidence of arteriosclerosis. The effect of ether on the kidneys requires that in acute and subacute nephritis and in acute exacerbations of chronic nephritis no operations, except those of necessity, should be performed while the volume of urine is low. In chronic nephritis, that is in patients with hypertension and albumin and casts in the urine, the tests for renal function are of supreme importance. A blood urea nitrogen of 35 mg. or over or a phthalein excretion of 20 per cent or under indicates a bad risk. In such patients preliminary treatment with alkalis and water, until the secretion of urine is raised to 1500 c. c. in 24 hours, is indicated. Gas oxygen or local anesthesia is the anesthetic of choice.

Many things have been left untouched and sketchy descriptions of the anesthetics mentioned have been given but the essential point is to remember that each patient with a handicap should be studied from the standpoint of the anesthetic indicated. Skillful administration is a prerequisite and there are certain inherent technical complications which may occur. Local anesthesia is apt to be dismissed casually but there are dangers of acute intoxication as a result of overdose, intravenous injection of the agent or idiosyncrasy. Inhalation anesthesia should not produce anoxemia and in certain patients such as plethoric, stout, short-necked individuals, such may be impossible without the addition of high percentages of oxygen, thus preventing anesthesia, and resulting in the struggling of the patient. In such cases the anesthetic of choice may not be possible and the second best must be used.

In spinal anesthesia, it is best to maintain preservation of epicritic and protopathic sensation about the level of the sixth rib. Above this, cardiac and respiratory embarrassment may develop. The inhalation of oxygen throughout the surgical procedure sometimes may be necessary and artificial respiration with undiluted oxygen should be given in impending circulatory or respiratory failure. When mucous formation has been excessive, postoperative hyperventilation with carbon dioxide should be used to expand

atelectatic portions of the lungs. It will be granted by most of us that for a successful outcome to operation, especially in handicapped patients, the anesthetic influence is as important as the technical manipulations. The avoidance of hemorrhage and a rapid carefully performed operation can be nullified by unskilled anesthetization.

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ABSTRACT OF DISCUSSION

CHARLES C. WOLFERTH (Philadelphia): There is one additional point that might be made. The medical man is frequently asked by the surgeon what anesthetic should be used. I question whether the training of the medical man is usually adequate to decide this question. He can perhaps tell the surgeon the state of the heart and kidneys, the blood vessels, and other organs, but he does not see day after day the results of various types of anesthesia—what happens when the patient takes the anesthetic. Most medical men are not qualified to advise the surgeon on that particular point. I should like to hear Dr. Müller's opinion on that question.

It is claimed by many clinicians that various types of visceral thrombosis may be induced by a low blood pressure. Dr. Müller pointed out the fact that spinal anesthesia causes a very sharp reduction in blood pressure. I should like to ask him if he has observed the occurrence of visceral thrombosis following the use of spinal anesthesia, such as thrombosis of the cerebral or coronary blood vessels.

HAROLD L. FOSS (Danville, Pa.): I wish to emphasize some points in Dr. Müller's paper. I am strongly in favor of using spinal anesthesia in many abdominal procedures and other operations below the diaphragm. It is a method which should supplant local anesthesia in many abdominal operations in which the latter anesthetic is used by certain enthusiasts of the method. When I visit clinics in which local anesthesia is used extensively, I usually find that, if satisfactory relaxation of the patient is secured, a large amount of other anesthetics is surreptitiously given to supplement the local.

As to the use of avertin in operating for toxic goiter: It works very well but a better anesthetic in thyroidec-tomy is nitrous oxide plus local skin infiltration with novocaine. It affords ample anesthesia, is distinctly safe, and it permits the patient to become partially awake while on the table, to cough or slightly strain, at the will of the surgeon and at the completion of the operation—a most helpful procedure in revealing overlooked bleeding—a step impossible with avertin. It is an excellent anesthetic for all operations about the mouth and tongue in which it is distinctly advantageous to have the anesthetist out of the way.

I am interested in the question of the relative merits of spinal anesthesia and inhalation anesthesia and, in an attempt to get at the truth of the whole matter, I reported before the recent meeting of the American Medical Association in Milwaukee the results of a study of a series of 4000 consecutive operations performed by me, one half performed with the patient under spinal and one half performed with the patient under ether, and in which all hospital deaths were recorded. The mortality was practically the same with the 2 methods, a difference of 0.01 per cent only being found. A few

days ago I reviewed the records of our patients operated upon for acute appendicitis under spinal anesthesia, comparing them with a corresponding consecutive series operated upon under ether. We had operated upon 416 patients under spinal; the mortality in this series being 34 per cent less than with the 416 preceding, consecutive, patients operated upon under ether. The decrease in the mortality of over one-third can be attributed to the greater facility with which spinal anesthesia permits one to carry on the operation, for in all other details the conditions were exactly parallel. So spinal is not the dangerous method many are led to believe and it has tremendous advantages over inhalation anesthesia in many types of general, major operations especially if performed below the diaphragm. Such opposition as exists to spinal is usually from quarters in which practical experience with it is meager. We will recall a paper read in this city 2 years ago, before the American Medical Association, by Dr. Bevan, of Chicago, in which he was utterly opposed to the use of spinal anesthesia and yet confessed that he had never used it. Spinal is the anesthetic par excellence in acute appendicitis, in acute intestinal obstruction, and in the treatment of acute perforating duodenal or gastric ulcer. A small dose of novocaine, at least never more than 150 to 200 mg., should be used.

We have found some of the newer barbiturates of great assistance, but used only as basic anesthetics preceding other forms. Nembutal has been of great aid especially preceding nitrous oxide and oxygen in operating on patients with advanced exophthalmic goiter. We have experimented somewhat with vinesthene, the new anesthetic, and have found it satisfactory in certain procedures but it will not very quickly replace other well established inhalation forms. Recently there have been reports of hepatic necrosis following its use.

JOHN O. BOWER (Philadelphia): In regard to the remarks of Dr. Foss on the use of spinal anesthesia in patients who have acute conditions within the abdomen. The highest mortality with spinal is in acute intestinal obstruction and cesarian section. That has been our experience at the Philadelphia General Hospital. In our experimental work with spinal anesthesia in the Department of Surgical Research at Temple University Medical School we observed that peristalsis is increased; however, if spinal is given 24 hours after the development of peritonitis, peristalsis is so pronounced that loops of adherent ileum will separate. This did not occur at the end of 72 hours. The question arises: Will this increase in peristalsis accelerate absorption so as to interfere with the outcome?

DR. MÜLLER (in closing): Our friends often tell us that we must do this and that regarding anesthesia, this patient cannot stand ether, this patient should have local anesthesia, but the surgeon who operates under anesthesia every day gets to know something about the anesthetic that is best suited to a given patient, and while, therefore, we should always be polite and take advice and recommendations of men who refer patients, yet frequently we have to disregard them.

Dr. Bower mentioned that in the data on spinal anesthesia, intestinal obstruction showed the highest mortality. The highest mortality from operations on intestinal obstruction occurs irrespective of the anesthetic used.

We need more information on postoperative pneumonia and on the formation of thrombi.

NONSURGICAL TREATMENT OF DIABETIC GANGRENE AND INFECTIONS OF THE LOWER EXTREMITY*

EDWARD S. DILLON, M.D., AND LEWIS H. HITZROT, M.D., PHILADELPHIA

In the pre-insulin era the chief hazard to the diabetic was acidosis. Entirely too many diabetics still die in coma; but since the advent of insulin the chief hazard has shifted from acidosis to arteriosclerosis and the pathologic conditions which follow in its train. Warren, in his *Pathology of Diabetes Mellitus*, states: "I have yet to see at autopsy a diabetic or to read the autopsy protocol of a diabetic, whose disease has lasted five years or more, free from arteriosclerosis, regardless of age." He adds, however, that he has never performed a necropsy on a young person who has had diabetes five years or more with insulin treatment throughout the course of the disease, as such patients rarely die as a result of diabetes. The type of arteriosclerosis characteristic of diabetics is the atheromatous lesion in muscular arteries. In nondiabetics this type of lesion usually is found only in elastic arteries such as the aorta, the carotids, and iliaes.

During the 18 months from Jan. 1, 1932, to July 1, 1933, in the wards of the Metabolic Division, Philadelphia General Hospital, 117 diabetics have died. Of these deaths 63 were arteriosclerotic, 53.8 per cent of the whole number. These were distributed as follows:

Heart	22	(35 per cent)
Gangrene	29	(46 per cent)
Cerebral Accidents	7	(11 per cent)
Nephritis	5	(8 per cent)

It is to be noted that the heart and extremities were the sites of the fatal lesions in 81 per cent of the arteriosclerotic deaths.

It has often been asked why diabetics are more prone to develop arteriosclerosis than nondiabetics. The most tenable hypothesis seems to be that the intima of the arteries is first damaged perhaps by the osmotic changes caused by high blood sugar or by rapid changes in the blood sugar level, or perhaps by acidosis. After the intima has been damaged, it is more permeable to droplets of lipoid which may be present in the blood in greater than normal concentration. These gradually accumulate in the walls of the vessels and lead to the formation of atheromatous plaques.

It has been suggested that the diabetic diet, higher in fat and lower in carbohydrate than the normal diet, is an etiologic factor. The patients in those clinics using extremely high fat diets

seem to be no more prone to develop arteriosclerosis than diabetics treated in other clinics. The main factor in the prevention of arteriosclerosis unquestionably is to keep the diabetes rigidly under control, regardless of the exact technic employed. The case which is most likely to develop serious arteriosclerotic pathology is the one in which the diabetes is mild, but out of control over a period of years.

In the present paper we are dealing with gangrene and infections of the lower extremity, the all too frequent results of inadequate control and arteriosclerosis. Diabetic gangrene differs from senile gangrene in that the former is almost always moist and the latter dry. In senile gangrene the final shutting off of the blood supply is rapid and so nearly complete that mummification rapidly results. In diabetic gangrene the failure of the blood supply is very gradual until a point is reached at which the vitality of the tissues is so low that a slight insult, such as a small trauma, infection, exposure to heat or cold, precipitates gangrene. There is still too much blood supply, however, for mummification to ensue.

Diabetic patients are more susceptible to infections in any part of the body than normal individuals, but they are especially prone to foot infections because of a disproportionately diminished local blood supply.

CRITERIA FOR SURGICAL TREATMENT

Under the following circumstances surgical interference is indicated:

1. Infection with inadequate drainage.
2. Infection spreading progressively in spite of treatment or severe enough to produce persistent toxemia or fever.
3. Osteomyelitis.
4. Gangrene, except superficial patches as described hereafter.
5. Marked decrease of blood supply, main stem and collateral, even though the local lesion appears to be comparatively trivial, and particularly if accompanied by severe pain.

Under any of the above circumstances surgical delay is dangerous and by far the most common and most serious mistake is postponing of radical surgery too long. If infection is present, the surgeon should operate as soon as he believes that surgical interference is necessary and can determine what is the least radical operation which offers a reasonable chance of success. In the presence of a severe infection the fact that

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

the diabetes is out of control is never a valid reason in itself for delaying operation; in fact it might be the strongest reason for immediate operation, in order to relieve the metabolic disorder of the burden of the infection. The presence of acidosis, however, indicates that the operation should be delayed until the acidosis can be controlled, which can usually be done in less than twelve hours.

FACTORS WHICH PERMIT CONSERVATIVE MANAGEMENT

Many lesions occur, however, which do not require an operation and which may be treated by nonsurgical methods. This applies particularly to patches of gangrene, which do not extend deeply into the subcutaneous tissues, which are sharply circumscribed, around which the inflammatory reaction is not marked or tends to subside quickly with treatment, in which the main stem or collateral circulation is at least fair and in which there is no systemic reaction. This applies also to infected corns, calluses, bunions, ulcers, blisters, sinuses, and paronychia, with the same mentioned provisos.

TABLE I

Admissions to Metabolic Wards (Jan. 1, 1932, to July 1, 1933)	725
Foot infections and gangrene, treated medically, with healing	43
Remained healed one month or more	25
Lesion recurred	2
Uncertain, inadequate follow-up	16

It is apparent that the criteria having to do with the selection of those cases which must be treated surgically and those which may be treated medically, concern chiefly the making of estimations of the severity of the infection and of the amount by which the local blood supply is diminished.

TABLE II

<i>Type of Lesion</i>	<i>Location</i>
Infected callus 11	Toe 35
Ulcer 10	Heel 4
Infected blister 8	Sole 3
Superficial gangrene 6	Ankle 1
Cellulitis 6	
Draining sinus 2	
Dorsalis pedis pulse palpable	21
Dorsalis pedis pulse not palpable	14
Dorsalis pedis pulse not recorded	8

In judging the severity of an infection of a lower extremity of a diabetic, all the criteria which apply to a nondiabetic, such as the extent and depth of the infected area, the amount of swelling, the color, the presence of pus, *etc.*, should be considered. In addition there are spe-

cial facts to be observed in a diabetic. The first is that the feet of a diabetic are often very insensitive to pain, and a severe infection which would cause intense pain in a nondiabetic may cause very little discomfort. The absence of severe pain, therefore, is not an indication to delay surgery. A second important fact is that infection often spreads with startling rapidity. When this occurs it calls for prompt action. This happens frequently in a lesion which has existed for some time and in which the infection has seemed to be of mild virulence. The presence of high or persistent fever is of more importance than in a nondiabetic and usually means that surgical interference is necessary. Perhaps the most important fact of all to remember is that infections of the feet in diabetics are extremely likely to be followed by septicemia.

In judging the condition of the circulation, both the condition of the main stem arteries and the collateral circulation must be given consideration. As regards the main stem arteries, the most important observation is to note whether the dorsalis pedis and posterior tibial arteries are pulsating. In general it may be stated that if these arteries are pulsating fairly well, one feels justified in trying conservative treatment unless the indications for radical treatment are obvious. The data obtained by using the oscilometer are interesting; but usually the same information may be obtained by the fingers. It is also interesting to examine the arteries by means of the roentgen ray but as the roentgen ray shows only the amount of calcification present in the walls of the vessels and not the degree by which the lumen is narrowed, this information is not of great importance.

If the pulsations in the main stem vessels are poor or absent it is highly important to make an estimation of the collateral circulation. If the circulation is poor, the nutrition of the foot is often impaired to such an extent that the skin appears waxy and there is an absence of subcutaneous fat. Color changes are important. If the color is good with the leg horizontal, but blanches when held perpendicular or becomes dusky red when held dependent, and if the normal color returns only slowly when the leg is returned to the horizontal, extensive circulatory damage is present. Marked changes in temperature may be noted by passing the backs of the fingers slowly down the leg and comparing with the other limb. The presence of localized pus without gangrene argues for a fairly good circulation, but the presence of severe pain out of proportion to that to be expected from the local infection argues for marked diminution of the local circulation. In general it may be stated

that markedly reduced blood supply indicates much more prompt and radical treatment than would otherwise be needed.

MODE OF TREATMENT

Having selected cases which we believe can be treated by nonsurgical measures, what measures are to be instituted? Our main object is to maintain as good circulation as possible. All pressure should be removed from the local lesion and this usually means that a shoe cannot be worn. In all but the mildest cases the patients should go to bed. If the patient is allowed to sit up the foot should be kept at the level of the thigh. The leg should not hang down. Circular garters and rolled stockings are to be avoided. The foot should be kept warm. This is usually best accomplished by a cradle and electric light, keeping the temperature of the air between 90 and 95° F. The electric light must be kept well away from the foot as burns occur easily and are hard to heal. For the same reason, hot water bottles and electric pads are dangerous. Dry heat is usually preferable to moist heat. Warm moist dressings may be used in treating lymphangitis, but lymphangitis usually means that surgery is necessary. Moist dressings may be used to aid in the removal of crusts under which there is infection. Moist dressings, however, usually cause undesirable maceration of the tissues. All salves and ointments are to be avoided as these only serve to seal up the infection. Likewise all powerful irritants are to be avoided, as

the sound tissues are easily damaged. Dakinizing an infected area is often useful, but usually in cases in which surgery has been used. Buerger exercises, consisting in cycles of alternately raising and lowering the limb from the horizontal position are useful.

We wish to emphasize that positive criteria may be employed in selecting diabetic foot lesions for conservative treatment; and that nonsurgical therapy stands excellent chances of succeeding in such selected cases. Close watch of the foot is required to enable one to detect in time a beginning spread of infection and to institute surgery. One case was lost in the 18 months covered by this report in which too persistent conservatism was a large factor.

TABLE III
Duration of Treatment

1 week	3	
2 weeks	10	Total patient-days
3 weeks	7	1461
1 month	9	
6 weeks	6	Average stay per
2 months	5	patient
3 months	2	34 days
5 months	1	

The economic consideration is a serious one in these cases, the average stay in the ward being 34 days. Against the time lost by the patient and the expense to the hospital must be placed his escape from mutilating amputations.

1803 Pine Street.
1704 Pine Street.

FEDERAL MEDICAL RELIEF AND EMPLOYEES' COMPENSATION

In an article with this title, published in the *Journal of the American Medical Association*, Dec. 30, 1933, p. 2125, is the statement that the original rules and regulations governing federal medical relief and employees' compensation have been revised. The new regulation states specifically that the benefits provided are not intended to be payable as compensation under the United States Employees' Compensation Act. Apparently employees of the Civil Works Administration may have the right to choose their own physician in the event of injury and occupational disease sustained in the performance of duty.

The director of the Unemployment Relief Commission of the State of Indiana has been authorized from Washington so to advise, through local administrators, the medical profession of Indiana and to arrange that reputable private physicians, willing to give treatment at reasonable charges, may participate in rendering this service in those places in which government medical officers and hospitals are not available and reasonably accessible.

The Federal Civil Works Administrator has been requested by the American Medical Association to abolish the limitations contained in the original rules and to amend the regulations to permit employees to select their own physician either from all doctors of medicine licensed to practice or else from lists of physicians approved by the United States Employees' Compensation Commission.

Although no ruling or authorization has been received by the director of Emergency Medical Relief of the Commonwealth of Pennsylvania to the effect that all reputable physicians willing to give treatment at reasonable charges may be used for the care of employees of the Civil Works Administration, it is his opinion that it is permissible for members of the medical profession of Pennsylvania to assume the medical care of the workers involved in the Civil Works Administration and, that if statements of service rendered are kept in proper form, payment for such service will be granted by the Civil Works Administration.

EDITORIALS

THE NEW YEAR

The new year was begun by the Romans with the feast of the god Janus, the two-faced deity, viewing at the same time life in retrospect and in prospect.

As we stand on the threshold of a new year we are cognizant in retrospect of a decided upheaval in affairs economic and politic, which has caused the profession of medicine to realize the need for putting its house in order. Never in the history of the world has there been the culmination of the multitude of events that have accumulated to the extent experienced with the closing of 1933. While it requires many years to develop a profession of any kind, yet in 1933 the medical profession was called upon to rebuild, almost over night, and gracefully accepted the challenge.

In prospect the beginning of 1934 witnesses the budding forth of the great plans incident to the metamorphosis, and all activities dominated as it happily should be by the principles of medical ethics, which consciously and resolutely bind the medical profession into an indestructible unit. Much remains to be accomplished in the fulfillment of the plans that have been laid and future happenings will necessitate the development of additional plans. The successful fruition of all activities will necessitate 100 per cent coöperation on the part of our membership by giving full support to the officers of the county and State societies and the American Medical Association.

There should be initiated NOW a Big Drive to enroll in membership in the county societies all eligible nonmembers. There is every need to have every ethical physician a member of his county society.

To quote from a recent letter sent by Secretary Walter F. Donaldson to the secretaries of the Component County Societies:

Our greatest responsibility in the next few weeks will be the maintenance at its present number of our active membership. This has involved, during very recent years, sacrifice upon the part of our entire membership, with an unusual share devolving upon our good and faithful county medical society secretaries. It has required sacrifice by most of our members to pay their county medical society dues and it has certainly required extraordinary energy and interest from those who must collect such dues. We physicians have never needed each other more than now. Economically affected as each of us has been by diminishing income, we are now confronted by an irresistible flood of governmental socializing relief and recovery activities which are inextricably related to medical service, witness, medical service to those on unemployment relief, medical service

to those employed in CWA (Civil Works Administration). In Pennsylvania fair medical relations with these projects began Dec. 1. Satisfactory future development is dependent largely upon county medical society leadership and individual participation of members. Introduced as temporary and emergent, who knows how soon some form of compulsory social sickness insurance may be included in our national experiments? We must understand that the basic fundament in our continuous struggle for the recognition of medical leadership in all such problems is a *complete and unified county medical society membership*. This means prompt payment of county medical society dues, involving sacrifice as it may, and active leadership which will demonstrate that the profession of medicine is an occupation which is pursued largely for others, and not merely for one's self.

The commercialized plan of selling medical service is a threatening menace; but bear in mind no ethical plan has been submitted, hence the failure of the plan, the only object of which is the monetary advantage to the promoters.

Let optimism prevail, resolutely face the issues, and solve the many problems before us.

A Happy New Year!

ANNUAL CONFERENCE OF COUNTY SOCIETIES' SECRETARIES AND EDITORS

The Twenty-eighth Conference of County Societies' Secretaries and Editors of The Medical Society of the State of Pennsylvania was held at the Penn-Harris Hotel, Harrisburg, Dec. 12, 1933. This is the first time the conference has devoted an entire day to its deliberations and was without doubt the best meeting the conference has held. The morning program was opened at 10:45 a. m. by State Secretary Walter F. Donaldson, who presented Dr. Edgar Buyers, chairman of the Board of Trustees, who presided at the conference. The opening portion of the program was devoted to the discussion of the cost of nonmembership. In this discussion, reference was made in general to the fact that paid-up membership in the county medical society makes one a member of The Medical Society of the State of Pennsylvania; and for the annual County Society membership dues, the member also receives the following: The JOURNAL of the State Medical Society, monthly; protection against alleged malpractice suits; participation in the Medical Benevolence Fund in case he or his family are in need of its assistance; membership in the American Medical Association and eligibility to Fellowship therein. Every qualified physician should unite with a County Medical Society: Because it unites the representative men of the medical profession; because of its

graduate study advantages; because of its altruistic interest in improved public health; because of its service in advancing and conserving the community interests of its membership.

Additional information concerning the Twenty-eighth Conference of County Societies' Secretaries and Editors will be found in the *Officers' Department*, p. 340.

Attention is also called to an article, "Federal Medical Relief and Employees' Compensation," on p. 323.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

In order to concentrate as far as possible publicity pertaining to emergency medical relief in this State, and thus expedite the time of our readers, beginning with this number of the JOURNAL a separate column will be initiated—*Emergency Medical Relief in Pennsylvania*, which will appear in the JOURNAL make-up following *Officers' Department*.

SCIENTIFIC PROGRAM OF THE NEXT ANNUAL SESSION

The next annual session of the State Society will be held at Wilkes-Barre, Oct. 1 to 4, 1934. The arrangement of the scientific program is in charge of the Committee on Scientific Work, of which committee Dr. Richard A. Kern, 36th and Spruce Streets, Philadelphia, is chairman. This committee will hold its first meeting in Harrisburg, on Tuesday, Feb. 6, 1934.

Those who desire to read a paper or a case report are advised to communicate with Chairman Kern previous to the February meeting of the committee. Be sure to give title of paper, specify the section before which you desire to read the paper or case report, and include a brief but efficient abstract of the same.

Those who delay communicating with the Committee on Scientific Work until after its February meeting greatly lessen their chance of securing a place on the program. At the second meeting of the committee, May 8, the program will be completed in every detail.

No member can read a paper two years in succession. A member may present a case report every year, but cannot present more than two case reports at the same session.

Each paper must be typewritten, double spaced, and not exceed in length the time allotted by the committee for the reading of paper. Some members prepare a paper that far exceeds the time allotment, but read the paper in

abstract within the time limit. Such papers will not be accepted by the JOURNAL for publication. A paper cannot be read by title, nor by another in the absence of the author. A paper is limited to seven illustrations.

THE SCIENTIFIC EXHIBIT OF THE STATE SOCIETY

Those who attend the Scientific Exhibit of the State Society know this Exhibit is becoming of increasing importance each year in its wealth of clinical material and practical demonstrations. Those who wish to participate in the Scientific Exhibit at the Wilkes-Barre Session should communicate with Dr. Angelo L. Luchi, chairman of the Scientific Exhibit Committee, 84 S. Washington St., Wilkes-Barre, Pa., for space in the Scientific Exhibit.

Application blanks are now available and the Committee on Scientific Exhibit requires that all applicants fill out the regular application form and requests that this be done as early as convenient; if possible, not later than Feb. 1, 1934, so as to enable the Chairman of this Committee to present a preliminary program to the Committee on Scientific Work at the stated meeting in February.

The Committee will endeavor to accommodate conveniently and without crowding all the exhibits accepted, will try to make the atmosphere of the Scientific Exhibit striking and impressive, will strive for an appearance of general neatness, and will consider it a personal duty and special privilege to extend to all scientific exhibitors every courtesy within its means. There will be a special subcommittee, under the supervision of the Chairman, to help exhibitors in any possible way in installing and dismantling the exhibits.

If the enthusiasm of many exhibitors who have asked for space and the splendid coöperation given this Committee by the entire Committee on Scientific Work are indications, the Wilkes-Barre Convention will be a very successful one, with a large attendance, rendering it worth while for every one and repaying especially the exhibitors for the time and trouble taken in preparing their material.

Attendance on the Motion Picture Exhibit, a feature of the Scientific Exhibit, is increasing each year. Those who are desirous of exhibiting a motion picture film as part of the Motion Picture Program at the eighty-fourth annual convention should send their applications for a place on the program to Dr. Luchi.

REPORT OF WORK DONE IN CARBON COUNTY BY THE EMERGENCY CHILD HEALTH COMMITTEE

MARJORIE D. BATCHELOR, M.D., PALMERTON, PA.

The first step was a meeting of the Carbon County Medical Society to which was invited the dentists and at which was discussed the whole problem confronting us. Dr. Emily Bacon, chairman of the Advisory Committee of Pediatricians, explained the procedure suggested by the State Emergency Child Health Committee, after which she gave a demonstration of the application of the examination form. She first interpreted the blank and then examined several children in the presence of the entire group, dictating her findings to volunteer assistants. This entire demonstration was very helpful. The membership of the Society pledged its full support to the movement and have, with the dentists, worked whole-heartedly ever since.

It seemed better for Carbon County to develop its procedure somewhat differently from the suggestions submitted by the State Committee. The seven larger towns of the county were made the centers from which the work was carried out into the outlying districts. An experienced organizer was chosen as vice-chairman for the town and thus automatically became a member of the planning committee for the county. In each town existing organizations formed the background for the selection of the local committee.

Young college graduates, not working, and nurses, unemployed or married, formed the bulk of the volunteer assistants for the physicians and the motor messenger corps. We aimed to allocate a nurse to assist each doctor in making his examinations. All the work by the doctors was done in their own offices. We asked each family which doctor they wanted. We have made a definite effort to renew the family-doctor relationship. The doctors have worked splendidly.

Each month the chairman in each town has sent to the County Chairman a full report of the work done and the corrective measures adopted. The enthusiasm of the laity in furthering this work is impressive. There has developed a real civic consciousness of the need for bettering the condition of our underprivileged children. There has been printed in the newspapers of the county a monthly report of the main findings in this work. In this way the general public has been kept informed and interested.

After the work was well started and we were faced with malnutrition, defective teeth, and infected tonsils, we began to develop methods for their correction. Money for cod liver oil has come from the Red Cross and from women's clubs. Pharmacists have cooperated by supplying materials at very low figures. In some communities, appeals have been made to housewives to send small empty bottles, clean and corked, to some central place. These were used for cod liver oil dispensing. Most of the communities are now taking care of the urgent cases requiring cod liver oil. There are many more children who need it.

The dentists have set aside certain hours for the urgent dental cases brought to them. There is so little that can be done for most of these cases. We felt the need of preventive measures. Thereupon, we began food demonstrations and lectures emphasizing the use of foods in the prevention of tooth decay. We used Dr. Price's articles, which ran in the dental hygiene magazines this fall, as the basis for our requests to housewives to use coarse foods and whole grains and vitamins in their effort to build good teeth for their children.

We made efforts to get inexpensive brown rice. The Atlantic & Pacific stores finally made available to us a loose, unpolished rice which sells at a reasonable figure. In some communities mimeographed copies of diets for children were passed freely among those who came to our food shows. The school social science teachers volunteered their services and one regional chairman, who has recently graduated in domestic science, has been generous in assisting with this work.

The question of the care of the bad tonsils is a difficult problem. Because of the prevalence of scarlet fever in the county during the past few years we have found plenty of tonsils which should be removed. Only the worst cases are reported, but the figures are appalling! The communities cannot cope with it. Small funds may be collected for some pathetic cases, but the majority cannot, at present, be touched. We are hoping that some plan will be developed by which these cases can be cared for in nearby State hospitals.

The problem of malnutrition is also difficult of solution. The families on relief are better in this matter than those borderline cases in patients who are not entitled to relief. We are trying to give as many of these cod liver oil as we can at present arrange. It is also difficult to secure sufficient milk, especially for the borderline cases. These are the children who are in great need of it. Some of the communities are giving it to the most urgent of these cases, but the majority are at present without it.

The amount of anemia found is not discouraging. The survey is being made as the children have come from a summer spent in the sun. It will probably increase during the school year. In some communities the committee has been able to supply the most anemic children with foods especially helpful in combating this condition. The generosity of the laity when some appeal is made for a particular group of children is conspicuous. One chairman of a small town wrote: "We expect to help our twelve anemic children by adding apricots and raisins to their diets."

Through the aroused interest of the communities there has been a general improvement in the knowledge of food values. Talks have been given in practically every town to the high school pupils on common, inexpensive foods. These, supplementing the talks to mothers, have proved stimulating. As an aside, at all these talks there has been made an appeal, in the case of abdominal pain, to withhold castor oil until a doctor has had an opportunity to see the patient and rule out appendicitis. We hope to decrease the ruptured appendices in the county by this opportunity of giving information broadcast to the school children.

The children reported as being unvaccinated and not immunized against diphtheria are still unprotected. Requests have been sent to the State Department of Health for the necessary materials. The doctors have promised their assistance in conducting clinics for this work. We hope to have this special part of the work of the committee done within the next few weeks.

The doctors have examined the preschool children very carefully. The older school children are being examined in a more cursory manner. We prepare modified reports from the school examinations with the assistance of the school nurses. We cannot ask the doctors to examine these older children if we have school examination data already at hand. In localities in which the school report is not available, we are doing the best we can. Some of the school doctors are having helpers assist them in filling out the examination sheets as the routine school examination is being made.

REPORT OF PROCEDURE OF FAYETTE COUNTY (PA.) EMERGENCY CHILD HEALTH COMMITTEE

CHARLES H. SMITH, M.D., UNIONTOWN, PA.

The organization plan as outlined by the State Committee was carefully followed and after a thorough survey of the tremendous project confronting the County Medical Society, 10 of the native physicians throughout the county met and formulated the plan deemed best to follow in this endeavor. Each member of this planning committee was to contact and secure the co-operation of at least 10 other physicians in his locality, so that there could be no possibility of a failure in the project, and so that it be considered a medical activity, and sponsored as such through the State and County Medical Societies. By following the plan as outlined, at least 100 physicians throughout the county pledged to support the undertaking.

Another meeting was held with some members of the planning committee, and prominent individuals in the fields of education, dentistry, and nursing, and specialists in home economics were selected to help. With the fine coöperation of the Fayette County Emergency Relief Board, their executive director, and the supervisor of relief, we were at once able to secure the name and address of every family upon relief, together with the name and age of every child in the county who was being given relief. This task was admirably performed by volunteer nurses who copied all these names from the relief files of the Emergency Relief Board. This was a stupendous undertaking, as more than 16,000 families were upon the relief rolls, and it required many days of arduous labor by many nurses to copy and arrange these names, and to see that they were properly typed and checked. By this plan we were able to determine definitely how many children in each city, borough, or township were to be examined.

Each physician was now consulted concerning the place at which he wished to make his allotted examinations, either at his office or at the hospital, and also as to the exact hour at which the children were to report for these examinations. After this had been determined, notices were typed and distributed to each family, advising them as to the day and hour they were to take the children to the physician's office or hospital for the complete physical examination. These notices were distributed by volunteers, also by relief investigators and others. An explanation was usually given to each family as to the value of this work and why they should coöperate to the fullest extent. If the desirability of this work could, by the State Society, be carried to the families not upon relief, in an ethical way, it would be of vast benefit not only to the children but to the physicians as well, since those able to pay for such services should be expected to do so.

Some of the examinations have been carried on in the rural districts by taking physicians and nurses from the cities to a country schoolhouse, but since very few school buildings are properly fitted for undressing the children this method is not advised if any other plan can be followed.

After the examinations have been completed and the charts collected at the central office, a very careful analysis is made and all defects are tabulated and then corrected as fast as possible. This part of the work is slow, because the hospitals are in dire financial condition and cannot receive the patients as rapidly as we should like to send them in; consequently only emergency tonsillectomies are requested. The analysis of

charts indicates that hundreds of the children need attention regarding their tonsils.

All medical cases are being given advice wherever malnutrition, heart lesions, or chest conditions are manifested. The various skin diseases discovered have been treated in every case in some localities, and eventually will be cared for in other places. Most of the acute eye defects have been looked after and many cases have been refracted, but not all, as no fund has been available for the purchase of the necessary glasses, except a fund in one city of the county, which fund is not for use in other townships. At the present time the Woman's Auxiliary to the Fayette County Medical Society plan to raise a fund that will be available any place in the county for the purchase of glasses for those on unemployment relief, which will aid this part of the work very materially.

Many of the minor surgical operations have been done in the homes, as several of the younger surgeons offered to do this work and relieve the various hospitals of the county the strain of caring for such. In fact all the boys found needing circumcision have been cared for in this manner.

Another aspect of the Child Health Program carried on in this county has been that of lectures and demonstrations in the purchase and preparation of a standardized diet. This work was under the care of a group of young women who in their college courses specialized in home economics. Permission was secured from the various school boards of the county for use of the dining room and kitchen of the high school buildings in various townships and boroughs, and into these places the young women gathered groups of from 75 to 100 mothers for each lecture and demonstration.

The Relief Board of the County gladly coöperated in this educational feature of the work and furnished an order so that food could be purchased for a family of 5 persons for 1 week. This food was placed upon a table before this group of mothers, and an explanation made as to the reason for the selection of each article of food. The mothers were advised what the particular food contained and why the children needed such so that malnutrition could be avoided or corrected if it happened to be present. After this lecture and explanation, which because of the type of audience probably required a half hour so that everything would be very clear, the various volunteers under the supervision of the dietitian cooked each article on the list, and while the cooking was going on, additional advice was given how and why the diet should be varied for each day in the week. After the cooking had been completed, plates were arranged with the various articles of diet just as it should be served in the homes, and these plates were passed around for all to inspect, and the last, more fortunate than those who inspected it first, were allowed to eat it if they so wished.

A vast amount of good has been done by these demonstrations and lectures, as there were many mothers who had never before been instructed about the desirability of a standardized diet and why it was so absolutely essential if they hoped to maintain the health and happiness of their children. This is real, reasonable, and practical help to these unfortunates in solving the problems which have to be met each day in their homes. The young women who have done and are still doing this valuable work deserve a vote of thanks not only from the physicians of the county but from the County Relief Board as well.

Toxoid, provided free of cost by the State Department of Health, is being administered to many children under age 6, because as a rule those under school age

do not have the advantage of such. Some cases are being given the toxoid at the physician's private office; in other cases, groups are requested to come to the hospital, at which from 50 to 60 may be cared for during a very short period in the morning, thus making the work more convenient for the physicians who have volunteered to carry this work through.

Many small details have been omitted, but the above statement covers quite well the procedure we have tried to follow in carrying out the splendid program outlined by the State Emergency Child Health Committee.

The Philadelphia papers, the next day gave a varying amount of space to the reports. The following is an abstract of an article that appeared in the *Philadelphia Public Ledger*, May 19:

Denial that the city's Department of Public Health is intentionally depriving physicians of fees by furnishing free service at its 11 health centers was the answer of Dr. George A. Knowles, assistant director of Public Health, to the report of the Committee on Medical Economics of the County Medical Society at Wednesday night's meeting.

According to Dr. Knowles, free service is furnished only to those absolutely unable to pay a fee and other cases are referred to a family physician. He denied that the department was sending out propaganda and said he hardly knew what to make of the report, since the question had supposedly been ironed out a year ago. Dr. Knowles revealed that the city's campaign for diphtheria immunization had drawn the fire of some members of the society, who objected to free inoculations in some cases. Incidentally, Dr. Knowles said the Philadelphia campaign has resulted in a death rate from the disease amounting to a fraction of the rate in other cities.

When times were good, Dr. Knowles said, the private physicians did not object to free clinics, but now their fees are being curtailed, they are looking around to see what they can do. Similarly, lawyers are tightening the lines against the drawing up of legal instruments by others than lawyers. The department realizes their problem and is trying to cooperate; meanwhile, it is idle to deny that great good is being accomplished in the field of public medicine.

Endowed beds maintained in hospitals by school teachers, which also were condemned by the medical society's report, were defended by Edward Merchant, secretary and business manager of the Board of Education. I don't think the doctors are losing much in the case of the endowed beds, he said. To begin with, some doctors receive a fee out of the endowment fund, and in the second place, those who are given the free beds would be unable to pay a fee from their own pockets.

Dr. Armand J. Gerson, associate superintendent of schools, who decides upon applications for the free beds, said 2 are maintained at Jefferson Hospital, while other beds are maintained at Hahnemann, Frankford, and Presbyterian Hospitals. All except the bed in Presbyterian Hospital include medical and surgical fees.

Dr. Walter S. Cornell, director of the division of medical inspection of schools and president-elect of the county medical society, said he believed a solution of the problem is to be found in a separation of hospitalization costs from physicians' fees. The former, he believes, could be covered by endowment or insurance; the latter paid by the individual.

The attitude of the medical society was described as "racketeering ethics" in a statement from the Socialist Party in Philadelphia. David H. H. Felix, chairman of the Public Affairs Committee, announced that a

conference of labor organizations will be called in protest. The reactionary stand of the committee of the County Medical Society in regard to socialized medicine is a direct blow to the continued health and well-being of the workers of the City of Philadelphia, Mr. Felix said. The shameful requirements for obtaining clinical services under the proposals of the society are degrading to the self-respect of the Philadelphia workers. We refer to the subcommittee's report which would require any one needing free medical attention to have a certificate signed by 2 outside persons, presumably persons of some wealth.

The following is an abstract of an article which appeared in the *Philadelphia Public Ledger*, May 20:

A declaration that when the value of contemplated adjustments in medical practice is realized, the Philadelphia County Medical Society will be given the fullest Coöperation by the public, was made by Dr. Seth A. Brumm, chairman of the society's Committee on Medical Economics. Dr. Brumm, in a statement replying to criticism of the principles of medical practice presented to the members of the society at a recent meeting, said the recommendations were made after nearly a year's investigation by his committee and subcommittees numbering nearly 50 physicians. These recommendations were made in an effort to provide machinery for the intelligent correction, along conservative lines, of those evils which have crept into medical practice during the past years and which have gradually grown to such proportions that the public, the individual patient, the hospital, and the physician, who are equally affected, must seriously consider them with a view to their elimination.

Taking up specific criticisms, Dr. Brumm first answered an assertion which he attributed to a representative of the Socialist Party that the shameful requirement for obtaining clinical services under the proposals of the society are degrading to the respect of Philadelphia workers.

Dr. Brumm stated, the requirements referred to are to protect the taxpayer from paying for medical treatment for any but the indigent and are suggested only as methods of enforcing what has always been the purpose of free hospital clinics, which were established to treat none but the indigent. Philadelphia workers, we feel sure, would seriously object to being classed as indigent.

Dr. Brumm then said that the policy of marking prescriptions not renewable was to protect the patient, who may be making self-diagnosis of a medical condition which may change quickly and which may require different treatment. Continuance of the same treatment, he added might prove injurious. He denied that another recommendation would limit, if not wholly eliminate treatment of eye cases in hospitals, as a critic complained. Our statement, he said, applied only to the practice of certain hospitals in making a profit on the sale of eyeglasses to patients who are entitled to free dispensary service. In one hospital, patients are refused treatment unless they purchase their glasses from its optical department.

It is inconceivable that any intelligent persons conversant with the history of medicine and its past unselfishness and altruistic accomplishments, should for one moment believe that this great body of Philadelphia physicians would change over night into a designing group inimical to public welfare. They must know that the physicians who give free service, valued at \$15,000,000 annually to the citizens of Philadelphia, which is several times the amount of all other welfare contributions, are public benefactors. When the motives

of the Philadelphia County Medical Society, representing a great group of the profession, are fully understood, there can be no question that the profession will receive the fullest coöperation from the public.

EMERGENCY RELIEF WORK IN PHILADELPHIA COUNTY

The Philadelphia County Medical Society recently distributed to its members the following:

Live Up to the Code—Treat the Patient

Payment to physicians from Federal and State funds for the treatment of patients who are receiving emergency relief is now an accomplished fact. The Code governing the Rules and Regulations of the State Emergency Relief Board under which these payments are made, is published in *The Weekly Roster and Medical Digest* under date of Dec. 2, 1933. The necessary printed forms, to be furnished by the State Emergency Relief Board, are now in the hands of the Director of Emergency Relief. Every practicing physician in Philadelphia should carefully study the method of procedure under this Code and be prepared to coöperate in the treatment of these patients.

The free choice of a physician is one of the pleasing features of the Code. Some patients, however, may have no regular family physician, and may call upon you for treatment. If the case is one which does not come within your practice or for any other reason you are unable to treat the patient, in the name of humanity do not turn the patient coldly from your door, but courteously send him to some other neighboring physician who you believe will treat the case. In your absence from your office, leave instructions that your secretary or whoever may receive the patients, shall extend a like courtesy. *But if it is at all possible, treat the patient yourself.*

This request is made in accordance with a letter issued by the Advisory Committee to the State Emergency Relief Board, which reads in part:

"It is hoped that every member of The Medical Society of the State of Pennsylvania electing to respond to calls for HIS service as requested by those on 'emergency relief' and as authorized by the County Emergency Relief Board, will, by the quality of his professional service and fairness of his charges, develop increasing public confidence in medical society leadership in all health problems.

"The enclosed 'Rules and Regulations' were approved item by item by the Pennsylvania Emergency Relief Board and the Committee after two conferences. If followed to the letter this 'Code' should limit useless discussions regarding its modification and assure good medical service.

"Dr. Harold A. Miller, of Pittsburgh, has been appointed by the State Emergency Relief Board as Director of Emergency Medical Relief, at the Capitol Building, Harrisburg.

"We would remind you that our Board of Trustees of the State Society, as well as the Committee, has enjoyed close relations, courteous consideration, and satisfactory coöperation, with the Pennsylvania Emergency Relief Board. We sincerely trust that the approach by all Component County Medical Society representatives to the Emergency Relief organizations of the respective counties will be with the hope and determination of developing and encouraging similar helpful relations."

The Physicians of Philadelphia must respond to this appeal by living up to the obligations already assumed in the name of the medical profession.

C. A. E. CODMAN, M.D.,
MYER SOLIS-COHEN, M.D.,
W. EGBERT ROBERTSON, M.D.,
FRANCIS ASHLEY FAUGHT, M.D.,
NATHAN BLUMBERG, M.D.,
I. P. STRITTMATTER, M.D.,
GEORGE P. MÜLLER, M.D., *Chairman,*

*Medical Advisory Committee to the
Philadelphia County Emergency Relief Board.**

THE ANNUAL MEETING OF THE PENNSYLVANIA TUBERCULOSIS SOCIETY

In view of the outstanding place of the physician in the prevention as well as treatment of diseases those persons who attend the forty-second annual meeting of the Pennsylvania Tuberculosis Society at Harrisburg on Tuesday and Wednesday, Jan. 23 and 24, 1934, will be most fortunate to hear an address by Dr. Donald Guthrie, president of The Medical Society of the State of Pennsylvania.

Dr. Guthrie, who is surgeon-in-chief of the Robert Packer Hospital at Sayre, is to speak at the closing luncheon session on Jan. 24 at the Penn-Harris Hotel.

A rare opportunity will be afforded physicians to hear Dr. Adrian V. S. Lambert, surgeon of New York City, who is to speak on "The Application of Thoracic Surgery in the Care of Pulmonary Tuberculosis," at a medical session at 4 p. m. on Jan. 23 at the Penn-Harris Hotel. Other physicians with experience in tuberculosis surgery will participate.

The importance of maintaining public health services will be brought out in an address by Dr. A. W. Freeman, director of the Department of Public Health Administration, Johns Hopkins University School of Hygiene and Public Health, who is to speak at a luncheon session on Jan. 23.

The importance of the health of school children in the problem of tuberculosis prevention and control has become widely recognized and there is rapidly increasing activity in this field of health work throughout Pennsylvania. The session on the afternoon of Tuesday, Jan. 23, will be devoted to a discussion under the topic "The School Health Program—Its Place in the Community." Speakers secured are Dr. J. Bruce McCreary, deputy secretary, State Department of Health and former president of the American Association of School Physicians; William G. Moorhead, chief, Division of Health and Physical Education, State Department of Public Instruction; A. W. Thompson, State Teachers College, West Chester, formerly on the staff of the Michigan Department of Education.

The value of informed and efficient nursing service in tuberculosis control work cannot be over-emphasized. There will be a session especially for nurses at 3 o'clock, Tuesday afternoon. Miss Alice E. Stewart, general superintendent of the Tuberculosis League of Pittsburgh and one of the outstanding nurses in this country, will preside. Miss Fannie Eshleman, in charge of nursing service at the Henry Phipps Institute, a member of the faculty of the Pennsylvania School of Social and Health Work, and president of the Penn-

* The Philadelphia County Medical Society has been authorized to appoint this committee, from which interpretations of the "Rules and Regulations" may be obtained and to which shall be referred all questions in dispute in the County of Philadelphia.

sylvania Organization of Nurses, will be the chief speaker.

"Evaluation of Tuberculosis Organization Programs of Work" will be the topic on Wednesday morning, Jan. 24. Dr. Kendall Emerson, managing director of the National Tuberculosis Association and acting executive secretary of the American Public Health Association, will be the main speaker. There will be short talks by a number of county tuberculosis secretaries.

The two-day meeting will close with the transaction of business of the forty-second annual meeting of the Pennsylvania Society on Wednesday afternoon.

Every one interested, especially those engaged in any way in health and welfare work, will be cordially welcome. All sessions, including the nursing and medical, will be held at the Penn-Harris Hotel, Harrisburg.

COMMENTS AND EXCERPTS

Science and Research

German physiologists, according to *Science News Letter*, have worked out an ingenious method of estimating the velocity of blood circulation, which depends on the peculiar light reaction of the dye fluorescein. The presence of this dye in the blood is indicated by a greenish color of the lips, viewed under pure blue light in a dark room.

A small amount of fluorescein is injected into the blood stream, and the number of seconds it takes until the lips shine with the greenish light are noted. The method is applied to the study of various circulatory and cardiac disorders, and research on the physiologic effects of sports.

The National Drug Trade Conference has proposed a standard table of poisons, intended to show which drugs and chemicals should properly bear the poison label if dispensed otherwise than on a physician's prescription. Nearly 200 substances have been tentatively listed. The table is proposed because of the impossibility of framing a definition for poison which will serve as an accurate guide in every case and also because of the unsatisfactory condition of many state laws concerning poisons.

According to *Science News Letter*, complete removal of the normal thyroid gland is a method used by a group of physicians and surgeons in Boston to relieve certain types of heart diseases. So far, 11 out of 13 patients thus treated have reacted successfully to the treatment. The treatment was devised by Drs. H. L. Blumgart, S. A. Levine, and D. D. Berlin, of Boston. These investigators believed that since partial removal of the thyroid helped patients suffering from heart disease caused by a thyroid disorder, removal of the gland should also be helpful to those patients whose hearts were overworked or strained from other causes.

In *Annals of Internal Medicine*, Dr. J. H. Means, commenting on the new method of giving relief to heart disease sufferers, warns that only surgeons who have given it special study should undertake this operation.

Dr. Leslie J. Harris, of the Nutritional Laboratory, Cambridge, England, has recently discovered a new substance in cancer tissue which he has named "reducytin." While investigating the reducing activities of vitamin C, Dr. Harris found that cancer tissue as well as vitamin C can reduce dichlorophenolindophenol. He thought at first that the ability of the cancer tissue to reduce this chemical was due to its content of vitamin C. Subsequent investigation, however, showed that the amount of vitamin C present in cancer tissue could reduce no

more than one-third of the amount of the chemical that was reduced by the cancer tissue. Dr. Harris concludes that a hitherto unrecognized and unusually powerful substance is present in cancer tissue.

Vitamin D Milk

In an address presented by Dr. Theodore F. Zucker, of the College of Physicians and Surgeons, Columbia University, New York City, at the Columbia Presbyterian Medical Center before the Science Forum of the New York Electrical Society, a description of the vitamin D milk was given. Dr. Zucker told how the vitamin D content of cod liver oil is extracted from the cod liver oil by breaking down the oil chemically. By repeated extraction with suitable solvents, crystallizing out impurities, and washing the product, a preparation can be obtained which is 15,000 times as potent in vitamin D as the original oil. This concentrated form of vitamin D has lost the characteristics of fish oil and if incorporated in foods gives them a good vitamin D activity without imparting a fishy odor or taste.

A practical application is incorporating this vitamin D concentrate in milk. The milk as fed differs in no way from ordinary milk—by odor, taste, or appearance—but contains in each quart the vitamin D content of several teaspoonfuls of cod liver oil. Dr. Barnes, of Detroit, has recently found that vitamin D milk furnishing 50 units a day is fully sufficient to prevent rickets in infants. The milk is made up to contain 150 units a quart so that a good margin of safety is left for the exceptional cases which may be more refractory and also so that older children may get a suitable amount in proportion to their increasing body weight. To get toxic effects from this vitamin D milk it would be necessary to consume hundreds of quarts a day. The vitamin D concentrate is never furnished to dairies in such a form that might turn out to be dangerous. All preparations are carefully controlled by biologic assay.

MEDICAL ECONOMICS

Doctors put Services on Cash-Carry Basis.—According to an Associated Press dispatch of Sept. 14, medical service in Telfair County, Ga., is going on a cash-and-carry basis to persons who are behind with their bills because physicians are on the verge of having to beg for a living. In a signed statement in the *Telfair County Enterprise*, Sept. 14, 1933, thirteen physicians said financial difficulties were taking too much time from their work and delinquent patients must pay cash in advance in the future. The statement said for 4 years the physicians had not collected enough to maintain their families and business. They said they had no desire to "mistreat any one or neglect our duty to humanity," but they had observed patients spending money for "unnecessary pleasures," and wondered how many of them would work for the doctors of the county 4 years without pay.

Leadership by County Societies.—Emergencies develop coöperation between groups which have been indifferent or antagonistic to one another. The entrance of the Federal and State governments into the field of local relief has forced the medical profession to enter into agreements with government officials, who recognize medical service to be as essential as food, shelter, and clothing. One would suppose that the county medical society would be the first source to which officials would turn for information regarding all forms of medical relief; but it frequently happens

that intelligent citizens know little or nothing about the medical society, or of the common aims and objects of the local physicians. Leaders in medical societies have developed practical methods of coöperating with government officials and lay organizations; selling these methods to the public still remains to be done. The great task of every county society is to demonstrate that it is alive and active for the benefit of the public.—*New York State J. Med.*, Dec. 1, 1933.

Recommendation for Relief for the Indigent Sick of Oklahoma.—At the request of Governor Murray a meeting of the Council of the State Medical Association of Oklahoma was held at Oklahoma City, Oct. 31, with a representative of the Governor, under the Federal Emergency Relief Administration. The State Association was asked to set up a schedule of fees that would be paid by the Federal Emergency Relief Association for the care of the indigent sick in the various counties of the state. A schedule subject to a 50 per cent reduction was submitted. Among other rates the list included: Visits, \$3; office visits, \$2; obstetrics, \$25; and mileage (per mile), \$1. It was further recommended that this service be rendered only to those registered for relief and as long as they remain on the relief rolls. This schedule and arrangement is to exist only during the period of the emergency; that the family physician-patient relation be maintained. When no physician is especially desired the doctors are to be called in rotation from a prepared roster of the members of the component County Medical Societies, using the most accessible physician in the rural communities. The schedule, with 50 per cent reduction, was made with the approval of the Federal Emergency Relief Association representative and was forwarded immediately to Washington, D. C., for final approval.

The Council could not pledge the physicians of the state to do work for the fee schedule submitted, less 50 per cent; however, it appears to be the best deal that can be made and the hope that the action will meet with the unanimous endorsement of the profession and that the doctors, as usual, will carry on and do their part to alleviate the suffering of the indigent sick.—*J. Oklahoma M. A.*, November, 1933.

Economic Problems in New Jersey

In an address to the Welfare Committee of the Medical Society of New Jersey, Oct. 15, 1933, Frederic J. Quigley, as president of the Medical Society of New Jersey and the elected leader of organized medicine of his state, deemed it his duty and responsibility to advise this committee of his judgment as to the policy and program which should be pursued by the Society during his administration.

As New Jersey and Pennsylvania have much in common, it will be of interest to read the following abstract of this address.

The major economic problems may be listed as follows: The excess of physicians to population; free medical care; and the corporate practice of medicine (a) by the State and (b) by private corporations.

Steps have been taken during the past year, through the initiative of the Council on Hospitals and Medical Education of the American Medical Association, which will sharply decrease the number of future graduates of medical schools of this country and drastically curtail the number of licentiates from foreign schools.

To deal effectively with the major problems adversely affecting the practice of medicine calls for a continuous policy on the part of the State Society. The steady objective of this policy will be to improve the status

of the doctor, particularly his economic status, so that he may be in a better position to render improved medical care to the public.

The National Recovery Act, deemed necessary to rehabilitate industry, provides for the formulation of codes by the industries affected, in which unfair trade practices and unfair competition are defined and prescribed. The professions, for the most part, are exempt from the provisions of the National Recovery Act, but if the principle of relieving industry of unfair trade practices and unfair competition is sound, the application of this policy to the rehabilitation of medicine is equally sound. We have as much right as any other group to participate in a national program of recovery; we have an equal right to freedom from exploitation, and the right to economic justice.

In like manner, we, too, rousing ourselves from our apathy, and from a policy of drift and *laissez-faire*, must institute and vigorously promote a policy of sustained effort that aims to improve the status of the doctor.

The second major problem, the question of free medical care, is undoubtedly the outstanding problem of the profession. The State Emergency Relief Administration, realizing the enormous load the profession had been carrying, offered partially to compensate the profession for the care of E. R. A. clients as an emergency measure.

The plan agreed upon by the Medical Society of New Jersey and the E. R. A., lately put in operation, provides a sound set-up, incorporating principles vital to the profession, for the care of indigents during the emergency. For the time being, this is definitely part of the Society's program, and it is pertinent to call attention to the fact that if it subsequently becomes necessary to insist that the state relieve the profession of the care of the indigent, as a permanent policy, the present plan need only be continued and extended. It possesses, they believe, all the provisions and safeguards which the profession believes desirable and necessary.

The abuse of medical charity on the part of hospitals and clinics must be curtailed if we are to continue to treat the indigent free. As the doctor is the only element in the hospital that gives free service, he should in largest measure have the right to determine the policies governing free care.

The whole subject of staff relationship to hospitals is now being studied by the Subcommittee on Hospitals of the Committee on Hospitals and Medical Education of the New Jersey State Society and this committee will report to the trustees within a short time as to requirements and standards that shall govern the relationship of members of this society to hospitals.

The third problem is the Corporate Practice of Medicine, more commonly referred to as contract practice. The rapidly expanding field of preventive medicine and the fact that much of this work is now abrogated by Health Departments and clinics make necessary a program which will recapture and return to the doctor's office as much of this work as possible. The comprehensive program of the Public Health Committee, adopted at the last annual meeting of the State Society and augmented since, aims to do this by coördinating all health activities under medical supervision through the medium of the county medical societies; and hopes through coöperation of county medical societies and local health departments to work out the other objectives of this program.

Endeavor should be made to improve the Workmen's Compensation Act, in order to insure freer choice of

physicians than now prevails. Whether it will be possible to effect these improvements by negotiations with the carriers, or whether additional legislation will be needed, is yet to be determined. It must be remembered that the Workmen's Compensation Act was not drawn in the interest of the employer, the insurance carrier, or the medical profession, but solely in the interest of the injured workman. All changes, therefore, in the nature and operation of the Act must be considered from the point of view of the injured worker. There is considerable room for improvement in the operation of this Act. The Medical Society of New Jersey, in 1922, went before the Legislature and succeeded in removing the \$50 limit for medical and hospital services in any given case; this change in the law was distinctly beneficial, both to the injured workman and to the doctor. The interpretation of the Act was further liberalized by the then Commissioner of Labor, who was a physician.

The question of contract practice is causing added concern by reason of various experiments recently projected, such as certain types of group practice, hospital insurance, etc. All the varied and newer types of contract practice should be considered by some agency of the society with power to sanction or disapprove. Both their immediate results and their ultimate effect on medical practice should be considered. There seems a genuine need for this committee to create a subcommittee on "Medical Practice" to which could be referred subjects such as these or of a kindred nature.

The present "hospital lien law" should be amended, at the 1934 session of the Legislature, if possible, to include liens for medical and surgical services rendered in public liability cases.

Every year the Legislature is importuned by various cults insistent upon exchanging their lack of education for legislation. The society, through its Welfare Committee, is obliged year after year to combat this inimical legislation. That no enactments of this nature have passed in recent years is due to the efforts of 4 members of the profession in the legislature. There is present reason to believe that the legislators might view sympathetically the introduction of a bill that would set up a single standard of medical licensure for all those wishing to practice the healing art.

Several years ago there was introduced in the legislature, by their State Society, an act which would have limited the use of the title "Doctor" and "Dr." (with the exception of holders of academic degrees) to graduates of medicine. This bill passed the senate 2 successive years, and then further efforts to pass it were abandoned. The year after the introduction of this measure in the New Jersey Legislature, the New York Medical Society obtained the passage of a similar bill in that state. This bill, modeled after New Jersey, is now part of its Medical Practice Act. New York has had ample time to gauge its benefits, and the consensus of those competent to judge is that this measure has been the most vital single factor in curtailing quackery in that state.

It is recommended that their Welfare Committee promptly undertake the drawing of a bill which shall set up a single standard of medical licensure and which shall limit the use of the title "Doctor" or "Dr." to graduates of medicine. This measure should be introduced in the legislature, either this year or next, as seems expedient.

Epitomized, the continuing policy of the Society should be directed toward improving the status of the doctor, particularly his economic status, in order that

he may be in a position to render better service to the public.—*J. M. Soc. New Jersey*, November, 1933.

Additional Articles on Medical Economics

Chester County—November, p. 347.

Huntingdon County—December, p. 349.

Lehigh County—November, p. 351.

Report of Work Done in Carbon County, p. 326.

Report of Work Done in Fayette County, p. 327.

Emergency Relief Work Done in Philadelphia County, p. 329.

Study of Commissary-Fed Children in a Central Pennsylvania Town—Dr. Mary Riggs Noble, p. 313.

HOSPITAL ACTIVITIES

Increase in Necropsies.—A compilation of statistics made by the Council on Medical Education and Hospitals of the American Medical Association shows there is a striking increase in necropsies in hospitals. In 1926, when a special effort for increasing necropsies was started, only 103 hospitals had a percentage higher than 30. In 1933, 305 hospitals have a record of more than 30 per cent. In 1926, of the 329 hospitals approved for intern training, less than 15 per cent necropsies, many a small percentage, and in some no necropsies at all. At present less than 60 of these approved hospitals fail to reach 15 per cent and it is estimated that 40,000 more necropsies are performed in the approved hospitals than at the time before the Council on Medical Education and Hospitals began the campaign for the performance of necropsies.

Concerning Group Hospitalization.—The *Bulletin of the North Carolina Hospital Association* comments on the discussions of group hospitalization plans at the convention of the American Hospital Association, held recently in Milwaukee. To quote some of the important points of the discussion as noted in the article: "Most of these new plans appear to be based on the assumption that the contributor will want and will be able to pay for a private or semiprivate room. In other countries, Great Britain, for example, the periodic payment plans entitle the contributor to the cheapest accommodations in the open wards. Hospitals as a rule do not lose money on the private and semiprivate room patients. They lose money on the ward patients who have not accumulated enough money to pay an unanticipated hospital bill and their incomes are so small that it would be a hardship on their families to expect them to pay. It is this group that constitutes the real problem. If the low wage earner who now goes into the ward as a free patient became a contributor of 15 or 20 cents a week to a common fund for hospital service, that would guarantee the hospital \$3 a day for every day he or a member of his family occupy a ward bed, most of the financial troubles of hospitals would disappear. That is the way Roanoke Rapids solved the problem many years ago."

Publicity Pays Pennsylvania Hospitals \$2,000,000.—The value of publicity or public education was graphically demonstrated in the victory of State-aided hospitals in the recent relief bond issue vote in Pennsylvania, for this bond issue was victorious despite predictions of well versed politicians that it would fail. And without question it would have failed had not the State Hospital Association so vigorously and so widely carried on its public education program.

The value of a program of public education thus is strikingly shown in the 4:1 margin by which the funds

which stood between the continuation of the State-aided hospitals and disaster to these institutions were voted. But a program of public education, whether carried on by an individual hospital or by a local or state or sectional group, is just as effective, although its results may not be so spectacular or so definite.

The experience of the hospitals of Pennsylvania ought to "sell" every state association and every hospital on the value of public education and ought to encourage the associations and the individual institutions to begin such a program without further delay. Incidentally, a practical way for many hospitals to start on an individual basis is to join the year of education of patients and visitors suggested by *Hospital Management* in the leading article in this issue.

These remarks on the success of the Pennsylvania hospitals' campaign to have the relief bond issue passed may not be closed without a word of congratulation to the officers of the association and to all of the members who participated, with a special commendation to those in immediate charge of the educational program.

Pennsylvania hospitals not only have saved themselves, as some hospital authorities of the State assert, in their successful effort, but they have given the whole field a practical lesson in the dollars and cents value of an educational program. And there's no telling when other states or communities may need just such an effort to save their hospitals.—(Editorial) *Hospital Management*, December, 1933.

PHYSICAL THERAPY

Loss of Sunlight from City Smoke.—A. P. Hood, of the Bureau of Mines, claims that smoke nuisances in American cities have been increasing in the past 4 years, with consequent loss to health from the effect of shutting off the ultraviolet rays of the sun. Mr. Hood attributed the increase in the smoke nuisance to municipal economies which have eliminated administrative machinery supervising the campaign against the smoke evil. Industrial plants have economized by discarding smoke and gas consuming devices which were formerly used.

The Public Health Service states that the ultraviolet rays contained in ordinary sunlight are shut off by dust, moisture, or smoke in the atmosphere.

Increased use of new stoking devices and smoke abating machinery has been valuable in decreasing the smoke nuisance. Several cities have made tests of the amount of smoke in the air during the winter. Some found that a 50 per cent reduction in the amount of smoke was noted the first year of the campaign to reduce the smoke nuisance; 60 per cent, the second year; 85 per cent, the third year. At present with the work in smoke abatement curtailed so sharply, conditions are now almost as bad as they were when the campaign started.

Effects of Short Wave Diathermy.—According to an article by E. Schliephake, published in the *Deutsche medizinische Wochenschrift* and abstracted in the *Journal of the American Medical Association*, Oct. 7, 1933, diathermy waves of 3 to 16 m. in wavelength can be produced by the use of radio tubes and applied through condenser plates with an air space between the plate and the skin. These waves, traveling through tissues of varying electrical resistance, cause selective heat production with maximal figures for tissues of high resistance. This selective action holds true for single living cells. Persons exposed to these rays for a longer

period of time respond with headache, nausea, and nervousness. The most pronounced local effects are leukocytic infiltration and a great capillary dilatation. This dilatation lasts for a long time and does not respond to adrenalin, probably because of a stimulating effect on the vagus and a depressing effect on the sympathetic endings. Abscesses are heated more than the surrounding tissues. Favorable results are reported for furuncles and carbuncles, panaritium, paradontoses, empyema (maxillary sinuses, pleura), joint diseases, osteomyelitis, arteriosclerotic gangrene. Experimental work on the heat regulating center has led to a theory about the mechanism of its function.

New Ultraviolet Quartz Lamps.—It is now possible to introduce a small quartz tube containing mercury, $\frac{1}{8}$ -inch diameter and $\frac{3}{8}$ -inch long, into the ear to produce radiation; or to irradiate tuberculous lesions in the kidney, bladder, lung, or larynx, with ultraviolet light. This new lamp is like a miniature sun which can be introduced within the body and because of its radiation is an effective natural healer. An electric current that alternates 7,500,000 times a second passes through the tube, and it is at this rate that the mercury atoms are made to vibrate and to emit rays without producing heat and burning tissues.

MEDICOLEGAL NOTES

Testimony of Physicians of Different Schools.

—The Nebraska Supreme Court holds, *Bellheimer v. Rerucha*, 246 N. W. 867, that the testimony of surgeons of another school may be received in an action for malpractice against an osteopathic surgeon where the operation in question is recognized as the same in both schools. The evidence, including the testimony of defendant himself, was that the treatment of the case, of hemorrhoids, would be the same in both schools.

The Nebraska court has followed this rule as to the testimony of an osteopath in a malpractice action against an allopath, holding, with the courts of Washington and other states, that the rule is not that a physician of another school is not competent to testify, but that a defendant's treatment is to be tested by the general doctrine of his own school; in other words, the standard of exclusion of evidence is not the school of the witness, but the premises of his testimony. If the premises from which he testifies, that is to say, the criteria by which he measures defendant's treatment, are those of defendant's own school, the witness is not disqualified merely because he himself belongs to another school.—*M. J. & Record*, Dec. 6, 1933.

Court Ruling on Fee Splitting.—The following is quoted from an editorial published in the *Ohio State Medical Journal*, November, 1933: Considerable publicity has been given to a novel case recently decided in the Surrogate's Court of New York County, N. Y., in which the division of fees by physicians was involved.

The case arose from a provision in the will of the late Henry Sterne which established trusts for the benefit of the Montefiore Hospital and the Hospital for Joint Diseases, New York City, but provided that to become eligible the two institutions must "make a binding rule to the effect that any and all physicians at any time practicing for remuneration in the said respective institutions shall be required to and shall pay toward the maintenance and support of the said institution a sum of money equal to 10 per cent of the gross fees which shall at any time be received by such physician

respectively for services performed by them in the said institutions."

A protest against this provision of the will was filed in the Surrogate's Court by the two hospitals, the petition stating that the condition imposed upon them a rule of conduct which was in violation of public policy, compelled the division of fees by physicians, and would impair the efficiency of the hospital.

In deciding the case in favor of the hospitals and striking the provision from the will, the court declared:

"It is immaterial whether the division of medical fees occurs between a physician or a layman, or a physician and a physician in cases prohibited by the canons of ethics, or, as in the situation here, between a physician and a hospital. Inevitably such a method of division would lead to deterioration in the medical staffs of hospitals with attendant injury to the public. It would likewise subject some physicians to the temptation of overcharging their patients to meet the requirements of the hospital rule.

"Although the difficulty in enforcing the condition might not of itself be a ground for a determination of invalidity, where, as here, it is mingled with a requirement that is unreasonable, unethical and in violation of public policy, the court cannot sustain it."

This attitude of the New York court is encouraging. It is possible it may blaze the trail for similar settlements of bad situations elsewhere, where division of fees is not necessarily involved, but where commercialized ventures in supplying medical services are flourishing.

It may become necessary for those familiar with the dangers of many medical and hospital service schemes to turn to the court to protect the public. It is easy to imagine the short work which could be made of some medical rackets were the projects taken to court for judgment on their merits in the light of public policy and public benefit.

INDUSTRIAL MEDICINE

Industrial Accidents Increasing.—The Department of Labor and Industry at Harrisburg notes with some apprehension a steady monthly rise in industrial accidents in Pennsylvania, beginning last April. Accidents increased more rapidly than employment, observes Miss Charlotte Carr, Secretary of the Department. No explanation is offered for the unfortunate circumstance. Whether the workers, after a period of idleness, have grown careless, or in their eagerness at recovering jobs have lost some of their old caution, the fact is disturbing. Surely the pressure for speed must be less a factor in these days than during the boom period of high production. In fact, the NRA concept of sharing the work would naturally tend to discourage the former demand for accelerated activity.

In the hope of offsetting the hazardous accompaniment of reemployment Miss Carr outlined a plan for safety programs in schools, shops, and elsewhere. Campaigns of the sort have been effective in the past. This time the goal was set for making November a "no-accident month." The next statistics, therefore, may be awaited with interest.—(Editorial) *Philadelphia Inquirer*, Nov. 21, 1933.

Study of Hazards in Industry.—J. J. Bloomfield, sanitary engineer, of the Public Health Service, has recommended surveys of industrial plants in order to take measures to protect the health of workers. These studies, he claims, frequently reveal hidden sources of danger to health; and through a study of the data col-

lected, many hazards can be eliminated and measures taken to protect the health of workers against poisoning from any of the processes used in manufacturing.

PUBLIC HEALTH

Facts of Birth.—To quote Dr. Joseph Bolivar DeLee, founder of the remarkably sanitary Chicago Lying-in Hospital: "The profession of being a mother today is more dangerous than the average masculine profession, with all its risks. Home delivery, even under the poorest conditions is safer than hospital delivery. . . . Six thousand women die annually in the U. S. from puerperal infection. . . . Evidence enough to convince any jury of husbands or any committee of life insurance adjusters. . . . The general hospital is a veritable cesspool of infection. . . . Meddlesome midwifery must be abated or made safe. Something is wrong with the maternity wards of general hospitals, and a great deal ought to be done about it. My recommendation is architectural and administrative isolation of the clean maternity until more is known about the nature of puerperal infection."

After intensive research, Baron Otnar von Verschuer, Berlin anthropologist states that most babies are born in the night time, and most twins near noon.

Dr. Richard L. Jenkins, Chicago juvenile research specialist, after examining the records of 7000 children of Sioux City (Iowa), claims that the youngest child in a family is usually the smartest, and the children of elderly parents are usually smarter than the average child. In contrast to Havelock Ellis, who thinks that late generating parents do their offspring good, Dr. Jenkins is of the opinion that more money, and experience in bringing up children enable such parents to take better care of the youngest of the children.

To quote from the *Vital Statistics Bulletin*, issued by the Department of Health of Pennsylvania, "The total of live births in Pennsylvania during 1932 was 168,553, which is the lowest ever registered in the Commonwealth. With the exception of 1930, there has been an annual decrease of approximately 10,000 births in Pennsylvania since 1928." "One out of about 100 childbirths produces twins; one in 10,000, triplets; one in a million, quadruplets."

Use of Dyes for Eyebrows and Eyelashes.—The action of Dr. Shirley W. Wynne, Health Commissioner of New York City, in prohibiting the manufacture, sale or use of eyebrow or eyelash dyes which are known to contain harmful ingredients, was commended Nov. 23, by Lewis H. Carris, managing director of the National Society for the Prevention of Blindness. "If only one woman in New York City should be spared the tragedy of blindness through Dr. Wynne's prompt order as soon as this menace to eyesight was disclosed, his action would be entirely justified," said Mr. Carris. "In a city as large as New York—with its thousands of beauty parlors patronized by perhaps a million or more women—the chances of injury to eyesight, if there is no law against the use of ingredients known to be harmful, are quite obvious."

The Sight-Saving Review, quarterly journal of the National Society for the Prevention of Blindness, in its December issue, commented editorially on the danger to women's eyes from the use of irritating dyes around the delicate tissues of the eye, Mr. Carris said. The Society held its Annual Meeting, Nov. 24. (The action of Commissioner Wynne is worthy the attention of health officers throughout the entire country.—*Editor*.)

Federal Narcotic Farms' Treatment of Drug Addicts.—Under the supervision of the Public Health Service, a new experiment in the treatment of drug addicts, will be made in the Federal Narcotic Farms at Lexington, Ky., and Fort Worth, Texas, when the 1800 drug addicts in federal prisons are transferred to these farms. It is planned to develop these institutions as research centers for the treatment of addicts. The Public Health Service has found that the attitude of drug addicts has developed a lack of interest in their problems.

The Public Health Service points out that the majority of persons addicted to the use of habit-forming drugs are more or less mentally ill, and their treatment should be made by means of a mental health approach. The Service finds that the causes of drug addiction are of 3 types: Approximately 70 per cent of the present day addicts became such because of contacts with other addicts; in 25 per cent, chronic and painful illness was responsible; the remaining 5 per cent are caused by other causes, such as fatigue, curiosity, *etc.* According to the Service, mental attitude and a predisposition toward the use of drugs are responsible for about 75 per cent of present day addiction, and concludes that various experiences indicate a narcotic addict with a normal mental background will not long continue as an addict, for narcotism is unnecessary for the comfort of one who is in good mental health.

Morbidity in Pennsylvania October, 1933

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	0	4	0	16
Allentown	1	3	12	0	0
Altoona	9	1	20	0	7
Ambridge	0	0	11	0	3
Arnold	0	0	0	0	0
Beaver Falls	0	0	0	0	2
Bellevue	0	0	2	0	0
Berwick	1	0	1	0	0
Bethlehem	0	4	1	0	1
Braddock	0	0	0	0	0
Bradford	1	0	11	0	1
Bristol	1	0	0	0	0
Butler	1	0	0	0	7
Canonsburg	0	0	7	0	0
Carbondale	0	0	0	0	0
Carlisle	0	0	1	0	3
Carnegie	0	1	0	0	1
Chambersburg	0	0	2	0	1
Charleroi	0	0	2	0	0
Chester	6	0	1	0	3
Clairton	1	0	1	0	0
Coatesville	0	0	0	0	0
Columbia	0	0	0	0	0
Connellsville	0	0	3	0	0
Conshohocken	0	0	0	0	0
Coraopolis	0	0	5	0	7
Dickson City	0	0	0	0	0
Donora	0	0	1	0	0
Dormont	0	0	0	0	0
Du Bois	0	0	0	0	0
Dunmore	0	0	0	0	0
Duquesne	1	0	6	0	0
Easton	0	12	0	0	2
Ellwood City	0	0	3	0	0
Eric	0	1	14	1	2
Farrell	0	0	0	0	0
Franklin	0	0	3	0	0
Greensburg	1	0	8	0	0
Hanover	0	0	0	0	0
Harrisburg	1	2	3	0	5
Hazleton	2	0	0	0	1
Homestead	1	0	12	0	0
Jeannette	0	0	2	1	0
Johnstown	2	0	5	0	22
Kingston	1	0	2	0	0
Lancaster	1	0	4	0	15
Latrobe	0	0	3	0	0
Lebanon	0	0	4	0	1
Lewistown	0	0	1	3	0
McKees Rocks	0	0	1	0	0
McKeesport	0	0	4	0	0
Mahanoy City	0	0	0	0	0
Meadville	1	1	5	0	0
Monessen	9	0	16	0	0
Mount Carmel	2	0	1	1	0
Munhall	0	0	0	0	0
Nanticoke	0	0	2	0	0
New Castle	0	0	2	0	0
New Kensington	0	0	3	0	0
Norristown	0	0	2	0	0
North Braddock	0	0	2	0	0
Oil City	12	0	1	0	1
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	0
Philadelphia	8	37	127	1	81
Phoenixville	0	0	1	0	0
Pittsburgh	21	6	69	0	67
Pittston	1	0	1	0	0
Plymouth	0	0	0	0	0
Pottstown	1	0	4	0	1
Pottsville	3	0	0	0	0
Reading	2	2	2	0	33
Seranton	4	1	7	0	4
Shamokin	1	0	0	0	0
Sharon	0	0	1	0	2
Shenandoah	0	0	0	0	0
Steelton	0	0	1	0	0
Sunbury	0	0	1	0	1
Swissvale	1	0	1	1	0
Tamaqua	0	0	0	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	0	0	0	5
Uniontown	1	0	6	0	0
Vandergrift	0	0	1	0	6
Warren	0	0	1	0	0
Washington	0	1	2	1	6
Waynesboro	0	0	0	0	14
West Chester	0	0	0	0	2
Wilkes-Barre	8	0	2	0	12
Wilkinsburg	0	0	2	0	5
Williamsport	1	0	15	0	15
York	0	0	4	1	0
Townships					
Allegheny County:					
Harrison	0	0	7	0	0
Mt. Lebanon	1	0	0	0	0
Stowe	0	1	1	0	0

Disease						Disease					
Locality	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough	Locality	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Delaware County:						Latrobe	0	0	1	0	0
Haverford	0	1	3	0	7	Lebanon	0	0	4	0	0
Upper Darby	0	1	1	0	7	Lewistown	1	1	4	3	0
Luzerne County:						McKees Rocks	0	0	1	0	1
Hanover	8	0	0	0	6	McKeesport	0	1	1	0	0
Plains	1	0	0	0	1	Mahanoy City	1	0	0	0	0
Montgomery County:						Meadville	0	0	3	0	0
Abington	0	0	1	0	0	Monessen	4	0	2	0	0
Cheltenham	0	0	0	0	0	Mount Carmel	0	0	0	0	0
Lower Merion ..	2	1	1	0	26	Munhall	0	0	0	1	0
Total Urban ..	113	66	446	10	402	Nanticoke	9	0	1	1	0
Total Rural ..	178	206	815	84	561	New Castle	1	0	4	0	0
Total State ..	291	272	1261	94	963	New Kensington ...	0	0	7	0	0
						Norristown	0	2	3	1	0
						North Braddock ...	0	0	2	0	0
						Oil City	2	0	1	0	2
						Old Forge	0	0	0	0	0
						Olyphant	0	0	0	0	0
						Philadelphia	8	311	227	14	105
						Phoenixville	3	0	2	0	0
						Pittsburgh	29	3	108	1	153
						Pittston	0	0	0	0	0
						Plymouth	0	0	5	0	0
						Pottstown	1	0	6	0	3
						Pottsville	1	3	0	0	0
						Reading	0	25	9	0	28
						Scranton	2	0	12	0	4
						Shamokin	1	0	1	0	0
						Sharon	0	1	1	0	0
						Shenandoah	0	0	1	0	0
						Steelton	0	0	0	0	0
						Sunbury	0	0	7	0	0
						Swissvale	0	0	1	0	0
						Tamaqua	1	0	6	0	0
						Taylor	0	0	1	0	0
						Turtle Creek	0	0	3	0	0
						Uniontown	2	0	8	0	10
						Vandergrift	0	0	1	0	0
						Warren	0	0	2	0	2
						Washington	0	0	6	1	5
						Waynesboro	0	0	0	1	2
						West Chester	0	0	0	1	1
						Wilkes-Barre	12	1	8	0	7
						Wilkinsburg	0	0	2	0	1
						Williamsport	0	3	11	0	19
						York	0	2	7	0	2
						Townships					
						Allegheny County:					
						Harrison	0	0	15	0	0
						Mt. Lebanon	0	0	1	0	0
						Stowe	0	0	5	0	0
						Delaware County:					
						Haverford	1	0	2	0	3
						Upper Darby	1	1	3	0	7
						Luzerne County:					
						Hanover	0	0	0	0	0
						Plains	0	0	0	1	2
						Montgomery County:					
						Abington	0	2	3	0	0
						Cheltenham	0	0	0	0	0
						Lower Merion ...	0	0	3	0	21
						Total Urban ..	96	388	714	44	524
						Total Rural ..	140	348	863	69	607
						Total State ..	236	736	1577	113	1131

November, 1933

Aliquippa	4	1	7	17	12
Allentown	1	3	9	1	5
Altoona	5	0	31	0	15
Ambridge	0	1	17	0	1
Arnold	0	0	1	0	0
Beaver Falls	0	0	0	0	1
Bellevue	0	0	1	0	0
Berwick	0	0	2	0	0
Bethlehem	0	0	6	0	1
Braddock	0	0	0	0	0
Bradford	0	0	3	0	0
Bristol	1	0	2	0	0
Butler	1	0	2	0	4
Canonsburg	0	0	31	0	0
Carbondale	1	0	0	0	0
Carlisle	0	0	2	0	0
Carnegie	1	0	0	0	0
Chambersburg	0	0	0	0	0
Charleroi	0	0	4	0	0
Chester	0	1	2	0	2
Clairton	0	0	3	0	3
Coatesville	1	0	3	0	0
Columbia	0	0	0	0	1
Connellsville	2	0	5	0	0
Conshohocken	0	0	0	0	0
Coraopolis	1	0	3	0	5
Dickson City	1	0	0	0	0
Donora	1	0	1	0	0
Dormont	0	1	0	0	0
Du Bois	0	0	2	0	0
Dunmore	0	0	0	0	0
Duquesne	0	0	11	0	0
Easton	1	22	0	0	0
Ellwood City	0	0	0	0	2
Erie	0	0	25	0	6
Farrell	0	0	2	0	0
Franklin	0	0	3	0	0
Greensburg	0	0	10	0	0
Hanover	0	0	0	0	4
Harrisburg	0	0	2	0	7
Hazleton	0	0	1	0	0
Homestead	0	0	7	0	1
Jeannette	0	0	1	1	0
Johnstown	3	1	8	0	30
Kingston	1	0	2	0	2
Lancaster	0	2	4	0	44

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THE numerous articles on collapse surgery of the lung in current medical journals reflect a widespread interest in this subject. Pneumothorax, phrenicotomy, thoracoplasty, and other means of collapsing the lungs are being employed in an increasing proportion of cases. Improvement in technic is progressing steadily. In the October, 1933, American Review of Tuberculosis, forty articles on thoracic surgery, derived from medical journals of six countries, are reviewed. From this collection a few are here presented.

PROGRESS IN COLLAPSE SURGERY

Artificial-Pneumothorax Statistics

Artificial pneumothorax is one of the most hopeful and beneficial methods used in the treatment of pulmonary tuberculosis. A survey has been made of a series of cases treated by artificial pneumothorax from 1922 to 1928.

All patients had tubercle bacilli in the sputum before treatment and very few were early cases. Pneumothorax was attempted in 149 cases, out of which 102 were successful. Seventy-five per cent of the patients were between the ages of 15 and 20 years. Of the successful pneumothorax patients, 29.4 per cent are still alive, while only 1.06 per cent of the unsuccessful ones are alive.

It is impossible to compare accurately these cases with ordinary sputum-positive patients, but there is no doubt that this therapy produces almost immediate benefit.

A Review of Artificial Pneumothorax Cases, G. Hurrell, Tubercle, Sept., 1932, xiii, 542.

Termination of Artificial Pneumothorax

Whereas the indications are well recognized for the induction of pneumothorax in patients with pulmonary tuberculosis, the criteria for its release are less clearly defined.

Seven factors are involved in the decision that the optimum time has been reached for reëxpansion of the collapsed lung: (1) The type of onset of the tuberculous disease, and its course prior to the giving of pneumothorax; (2) the period of time which has elapsed between attempting the pneumothorax, and producing a satisfactory collapse of the affected lung; (3) the rate of disappearance of tubercle bacilli from

the sputum; (4) the existing constitutional symptomatology of the patient as compared with that before pneumothorax; (5) the type of re-fills; (6) the condition of the contralateral side; and (7) the economic status of the patient.

Physical signs by themselves are relatively unimportant, because even a thin film of air may mask or distort marked pathological lesions in the underlying lung. On the other hand, serial roentgen-ray plates, especially those taken just prior to the induction of the pneumothorax, and for two weeks thereafter, are particularly helpful in that they show the degree of parenchymal involvement before collapse therapy. Later roentgen-ray plates may be misleading, as mediastinal structures may overshadow changes in the parenchyma of the lung.

Of the seven factors listed, the time necessary for the disappearance of tubercle bacilli from the sputum constitutes the most important criterion as to the effectiveness of the pneumothorax. At the time of induction it is futile to estimate the necessary duration of the pneumothorax. Satisfactory pneumothorax for one year to one and a half years should be sought for. Occasionally shorter periods suffice, but far more often the clinical course necessitates a longer space of time.

When release of the collapsed lung has been determined upon, the affected lung should be allowed to expand slowly and under careful observation. An average-sized pneumothorax should require two and a half to three months for complete reëxpansion of the collapsed lung. In instances in which air-absorption occurs too rapidly, the rate of expansion may be slowed by small

refills; in reverse cases, the rate may be accelerated by putting the patient on graduated exercise.

The reappearance of tubercle bacilli in the sputum, or the development of undesirable constitutional symptoms during the release of collapse therapy, are indications that pneumothorax should be maintained. In cases of large cavitation antedating the pneumothorax, a phrenico-exaeresis is advised at the end of the period of pneumothorax before attempting a release of the collapsed lung. This measure is also advocated during release of the pneumothorax if untoward symptoms develop as a result of a shifting of the mediastinum.

Ueber den Abschluss der Pneumothorax-behandlung, M. Gross, *Munchen. med. Wchnschr.*, July 8, 1932, *lxix*, 1122.

Expansion of Lung after Artificial Pneumothorax

There have been very few reports on the status of patients in whom artificial pneumothorax has been stopped. In a series of 105 former pneumothorax cases, in which the lung had been reexpanded from one to eighteen years, 81 patients were alive and of these 62 were leading normal lives. Twenty-four patients were dead, and 19 of those living were still "curing."

Most of the cases in this study were in the far-advanced group, and all but 25 had lesions in the other lung. A positive sputum was present in 98 cases, and 75 of these became negative after pneumothorax treatment.

In the patients who are living and well, pneumothorax treatment had closed the cavities and rendered the sputum negative; of those still curing the cavities had not been closed, or extension had occurred to the other lung, or the patients were still recovering from other surgical procedures.

In a group of 38 patients, who had returned to work after reexpansion of the lung, only 3 had relapses in that lung. The former cavity reappeared 3 years after treatment had been stopped in one case; in another case an acute tuberculous process developed in the other lung, followed by cavity-development in the lung which had been originally collapsed, although this new cavity did not appear at the site of the old lesion; in the third case, the cavity reappeared 7 years after cessation of pneumothorax.

In another group of 34 patients who returned to work, there were 5 who relapsed, but the details of the relapses were not known. The total number of relapses in 72 patients who had returned to work was 10, and all these occurred

from 3 to 11 years after pneumothorax was stopped. The average time that pneumothorax was maintained in the 105 cases was 2.6 years.

It is concluded that reactivation following satisfactory collapse is the exception rather than the rule, and that an effective pneumothorax of 2 years' duration, with a negative sputum for at least one year, gives reasonable assurance that the lung may be expanded with safety. Even in those cases in which the pneumothorax is unintentionally lost at the end of 2 years there is no more danger of reactivation, if the cavity has been closed and the sputum rendered negative, than if the collapse were maintained for longer periods.

The Present Status of One Hundred Pneumothorax Patients after from One to Eighteen Years' Expansion of the Lung, E. N. Packard, *J. Thorac. Surg.*, August, 1932, *i*, 581.

Bilateral Artificial Pneumothorax

The application of bilateral artificial pneumothorax on a wider scale is advocated. Selective collapse of the diseased areas of the lung, while permitting function of the healthier portions, is the procedure of choice. Adhesions mitigate against this procedure more than any other factor, and cauterization of adhesions is indicated when possible. When it is probable that a cauterization will enable the healthier parts of the lung to attain a better function and will secure more ideal conditions for a gradual reexpansion of the affected parts, cauterization is indicated, even if the artificial pneumothorax has been clinically successful.

In limited disease the complete thoracoplasty now in vogue should give way to partial thoracoplasty or apicolysis. In bilateral artificial pneumothorax needles with side openings should not be used, as they are more apt to perforate the lung than the ordinary needles. Combinations of methods may be desirable, such as phrenicectomy or plombage or partial thoracoplasty on one side and pneumothorax on the other. A bilateral phrenicectomy has been carried out with relatively good result and without any serious disturbance of function.

A case of bilateral thoracoplasty is reported. The patient, a young girl, was febrile for 18 months prior to the operation, but has remained afebrile ever since. The expectoration, which was rather copious in amount, decreased to about 10 c. c. in 24 hours but was still positive for tubercle bacilli.

Selective Lung Collapse in Bilateral Disease, J. Gravesen, *Lancet*, Feb. 18, 1933, *ccxiv*, 351.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

PROGRESS IN PAYMENT TO PHYSICIANS FOR MEDICAL SERVICES TO BENEFICIARIES OF UNEMPLOYMENT RELIEF

December 20, 1933.

To the Members of Medical Advisory Committees to County Emergency Relief Boards, with Copy to the President, the Secretary, the Editor, and the Chairman of Public Relations Committees of the Component County Societies.

DEAR DOCTOR:

The Pennsylvania plan for payment for medical services to those on unemployment relief is actually in operation in a number of counties, in most instances proportionate to helpful relations established between County Medical Society representatives and County Emergency Relief Boards. In one county, with 60,000 on relief, 800 orders for physicians' services were issued during the first 19 days of December.

Experience gained thus far as reported to our Committee by County Advisory Committees and in conference with Pennsylvania's Director of Emergency Medical Relief—Harold A. Miller, M. D.—justifies, in our opinion, the following modifications and observations regarding the Rules and Regulations previously issued.

Complete adoption of the paragraph governing Obstetrical Care is postponed until March 1, 1934. If prenatal and other requirements are not whole-heartedly in force by that date, the medical profession will no longer be able to resist the great pressure even now being brought to bear to admit licensed midwives to the county lists for obstetrical practice. Our only potent argument to prevent this will be a reduction in

Pennsylvania's puerperal deaths due to recognition of certain prenatal signs which physicians only are trained to detect.

As rapidly as possible every facility will be adopted by Relief Boards to contact pregnant women "on relief" with their own choice of physician early in the pregnancy.

Another experimental modification will permit a "poor" physician to treat under "unemployment relief" authorized cases in families not previously recognized as county or municipal "poor," and who by said physician's private office records are shown to have been his private patients prior to Jan. 1, 1933.

Many complaints are already on file because physicians are prescribing proprietary remedies and ordering supplies in extravagant amounts.

All persons accepting "authorized cases" are urged to reread the Rules and Regulations and so to order their participation in the plan as to "provide good medical service at a low cost—to the mutual benefit of the unemployment relief beneficiary, the physician, nurse, dentist, pharmacist, and taxpayer."

If we render a true professional service in this great social experiment, the proper place of the medical profession in other social experiments now in the offing is assured.

Our leadership and our individual participation is on trial as never before.

Very truly yours,

ADVISORY COMMITTEE TO STATE

EMERGENCY RELIEF BOARD

GEORGE L. LAVERTY, M.D., *Chairman*,

W. BURRILL ODENATT, M.D.,

HENRY T. PRICE, M.D.,

CHARLES H. SMITH, M.D.,

WALTER F. DONALDSON, M.D., *Secretary*.

THE SECRETARIES' CONFERENCE

The 28th Annual Conference of County Society Secretaries, to which the editors of the various county society bulletins and the chairmen of the county society public relations committees were invited, was an all day conference held at the Penn-Harris Hotel, Harrisburg, on Tuesday, Dec. 12, 1933.

The following were present at the Conference: The Secretaries of 31 component societies; 8 Editors of county society publications, who were not also Secretaries; President Donald Guthrie, President-elect Moses Behrend, Editor Frank C. Hammond; Trustees Anderson, Bishop, Buyers, Crow, Kech, Knowles, Phillips, Stewart, and Thomas; Dr. G. L. Laverty, chairman of Advisory Committee to State Emergency Relief Board; Dr. L. K. Ferguson, member of Governor's Committee to study Workmen's Compensation Laws in Pennsylvania; Dr. Thomas A. McGoldrick, Brooklyn, N. Y., member of Governor's Committee to Study Workmen's Compensation Laws in New York State; Dr. Harold A. Miller, Director, Emergency Medical Relief, Dr. J. A. Daugherty, Harrisburg; Mr. L. H. Perry, Executive-Secretary, Allegheny County Society; Mr. F. M. Crispin, Executive-Secretary, Philadelphia County Society; Mr. Stephen B. Sweeney; Mrs. Mary A. Yerger, Managing Editor, PENNSYLVANIA MEDICAL JOURNAL; also the following members of the State Society Public Relations Committee: Drs. R. M. Alexander, G. H. Cross, N. D. Gannon, J. P. Harley, Wilmer Krusen, and W. H. Mayer.

The following secretaries, editors, and chairmen of County Medical Society Public Relations Committees were present:

Secretaries—F. M. Jacob, Allegheny County; J. B. F. Wyant, Armstrong County; R. C. Travis, Berks County; E. F. Williams, Blair County; S. D. Conklin, Bradford County; A. F. Myers, Bucks County; R. M. Christie, Butler County; H. M. Griffith, Cambria County; J. L. Bond, Carbon County; Joseph Scattergood, Chester County; C. C. Ross, Clarion County; J. P. Frantz, Clearfield County; D. W. Thomas, Clinton County; C. B. Yost, Columbia County; R. R. Spahr, Cumberland County; N. D. Gannon, Erie County; C. P. Stahr, Lancaster County; W. A. Womer, Lawrence County; J. T. Butz, Lehigh County; W. S. Brenholtz, Lycoming County; P. S. Robbins, McKean County; J. B. Perrine, Mercer County; E. S. Buyers, Montgomery County; M. K. Gass, Northumberland County; H. G. Munson, Philadelphia County; R. H. Jones, Potter County; A. B.

Fleming, Schuylkill County; E. R. Gardner, Susquehanna County; H. C. Eaton, Warren County; A. E. Thompson, Washington County; C. D. Ambrose, Westmoreland County.

Editors—Walter F. Donaldson, Allegheny County; J. J. Meyer, Cambria County; C. I. Stiteler, Delaware County; J. M. Keichline, Huntingdon County; J. L. Atlee, Jr., Lancaster; L. T. Buckman, Luzerne County; F. C. Parker, Montgomery County; S. H. Brown, Philadelphia County.

Chairmen County Society Public Relations Committees—J. L. Whitehill, Beaver County; J. D. Findley, Blair County; R. J. Sageron, Cambria County; J. A. Trexler, Carbon County; H. R. Douglas, Dauphin County; A. R. Feinberg, Luzerne County; Francis DeCaria, McKean County; P. E. Biggins, Mercer County; and R. K. McConeghy, Potter County.

The program which appears below was carried out with consistently sustained interest on the part of all present. In subsequent issues of the JOURNAL we will publish generous abstracts of the papers presented as well as discussions as recorded by an experienced reporter—an innovation at this year's Conference.

PROGRAM

10:45 a. m.

Round Table Discussion—

THE COST OF NONMEMBERSHIP

Discussion by—

WALTER S. BRENHOLTZ, M.D., Secretary Lycoming County Society.

ARTHUR B. FLEMING, M.D., Secretary Schuylkill County Society.

General Discussion opened by—

Mr. FRANKLIN M. CRISPIN, Executive Secretary, Philadelphia County Medical Society.

Round Table Discussion—

GRADUATE MEDICAL EDUCATION FOR OUR SMALLER COUNTY SOCIETIES

Discussion opened by—

President DONALD GUTHRIE.

Discussion continued by—

DONALD B. COOVER, M.D., Secretary Adams County Society.

PERSIS S. ROBBINS, M.D., Secretary McKean County Society.

WILLIAM A. WOMER, M.D., Secretary Lawrence County Society.

General Discussion.

Remarks on—

PROPOSED ACTIVITIES OF COMMITTEE ON CONSERVATION OF VISION

By SAMUEL HORTON BROWN, M.D., Chairman of Committee.

12:45 p. m.—Luncheon

2 p. m.

MEDICAL RELATIONS UNDER WORKMEN'S
COMPENSATION

By THOMAS A. MCGOLDRICK, M.D., Brooklyn, Member of Governor Lehman's Committee to Study Workmen's Compensation Laws in New York State.

Discussion continued by—

LEWIS K. FERGUSON, M.D., Philadelphia, Member of Governor Pinchot's Committee to Study Workmen's Compensation Laws in Pennsylvania; and by MOSES BEHREND, M.D., President-elect State Society.

General Discussion.

MEDICAL SERVICE TO PAUPERS

(in contradistinction to those on emergency relief)

By EDGAR S. BUYERS, M.D., Chairman of Board of Trustees, and Secretary Montgomery County Society.

MEDICAL SERVICE TO THOSE ON
EMERGENCY RELIEF

By HAROLD A. MILLER, M.D., Director of Emergency Medical Relief in Pennsylvania.

Adjournment at 4 p. m.

We epitomize as follows discussions on the opening subject—The Cost of Nonmembership.

Dr. Arthur B. Fleming, secretary, Schuylkill County Medical Society, stated that much could be accomplished if the secretaries of the component county societies would personally interview eligible nonmembers, as well as those who were formerly members but who have dropped by the wayside for various reasons. This necessitates that the secretary must be a good salesman, that he must be sold on the proposition himself, and be thoroughly conversant with the reasons for membership that should be meted out to the prospective new member. Dr. Fleming has made it a point to visit as many of the members of his county medical society as possible to keep in personal touch with the membership, and to collect dues; 30 per cent of the receipts having come in as a result of this visitation; and to get better acquainted with the members in their home environment. Dr. Fleming closed as follows: We are all salesmen for organized medicine and in order to sell our projects we must be alert representatives, especially on the social side of our activities. When the nonmember realizes that it is costing him more to hold aloof than his dues amount to, he will be very apt to apply for membership.

Dr. Walter S. Brenholtz, secretary, Lycoming County Medical Society, stated in part: It is almost inconceivable that any regular graduate licensed physician would refuse or hesitate to become affiliated with his county medical society just as soon as he possibly can after locating to

practice; there are physicians today who have refused to join their county medical society who are benefiting from that which the organized medical profession has attained throughout the years for those who practice medicine. The non-membership group thus inadvertently at least is accepting charity from the members who support the county medical society. It is most unfortunate that the eligible nonmembers refuse to unite with the county medical society, yet will continue to accept invitations to attend its medical meetings, annual banquets and other social functions of the community. To say the least it is an injustice to their fellow practitioners.

Mr. Franklin M. Crispin, executive secretary of the Philadelphia County Medical Society, speaking on the subject, stressing the phase of tangible returns, emphasized among other points the following: It is through medical organization, and only through medical organization, that both the physician and the public are protected. There is no other established agency. Deprived of the support of medical organization, the physician would soon be deprived of the opportunity for legitimate practice. Probably all tangible returns may be grouped under the head of medical economics, and from all sections of the country come reports of a paramount interest in this subject. It almost amounts to a call to arms in defense of the medical profession and the public against those who would exploit both. Unquestionably the medical profession is confronted with a greater multiplicity of problems than ever before, and only by medical organization may they be solved. Through the solving of these problems during the next few years, greater tangible returns will accrue to physicians and to the public than ever before in the history of medical organization. While nonmembers are bound to receive some reflected "returns," those who are members will undoubtedly be the greatest beneficiaries.

BUILDING IMPROVEMENTS

The Board of Trustees of our Society at their December 11 meeting decided to proceed with proposed plans for much needed alterations and a fireproof addition to the Society's headquarters building at 230 State Street, Harrisburg, which will afford improved working facilities looking toward extension of the service of the Society to its members. When these improvements are completed, the building will be not only in appearance in keeping with the dignity of our organization and the property's proximity to Penn-

sylvania's magnificent Capitol Building group and park, but will provide fireproof and water-proof facilities for the storing of archives, the development of library and of library package service, a museum, committee rooms, and a Board room capable of being converted into a meeting room to seat comfortably about 80 persons.

COMMITTEE ON APPENDICITIS MORTALITY

As per action taken by our 1933 House of Delegates, President Donald Guthrie has appointed a State-wide committee whose function it shall be to strive through existing facilities of the State Society to bring about a reduction in the mortality from appendicitis in Pennsylvania. The following members have accepted appointment on this committee: Dr. John O. Bower, Philadelphia, chairman; Dr. Paul Correll, Easton; Dr. Maxwell Lick, Erie; Dr. Joseph P. Replogle, Johnstown; and Dr. John W. Shirer, Pittsburgh.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Dec. 16:

ADAMS: *New Member*—Roy J. Wetzel, Arendtsville.

ALLEGHENY: *New Members*—Charles M. Pauley, 162 Wabash Ave.; Ed. M. Phillips, 410 Washington Road, Mt. Lebanon; William S. Dietrich, 35 Wabash Ave.; Francis A. Hegarty, 3710 Fifth Ave.; William A. Messer, 1339 Cordova Road; Carl L. Moore, Magee Hospital, Forbes & Halket Sts., Pittsburgh; Samuel R. Perrin, 401 Butler St., Etna; Arthur E. Roose, Jr., 201 Beech St., East Pittsburgh. *Reinstated Member*—Robert P. Saling, 2320 Carson St., Pittsburgh. *Removals*—Samuel F. McComb from Tarentum to 228 Amber St., Pittsburgh; H. Chester Hieber from Pittsburgh to R. D. 1, Box 390, Conneaut, O. *Resignation*—Thomas F. Moore, St. Petersburg, Fla. *Deaths*—Raymond Russell Hetherington, Pittsburgh (Univ. of Pa. '16), Oct. 22, age 42; Roger Williams, Los Angeles, Cal. (Jeff. Med. Coll. '77), recently, age 83.

BEAVER: *Reinstated Member*—Raymond L. Sheets, Beaver Falls. *Death*—Guy S. Shugart, Rochester (Univ. of Pgh. '97), Oct. 5, age 57.

BERKS: *Death*—Frederick W. Knoll, Reading (Jeff. Med. Coll. '14), Nov. 29, age 47.

BRADFORD: *New Member*—Wilfred D. Langley, Packer Hospital, Sayre. *Reinstated Member*—Daniel L. Bevan, Sayre.

CENTER: *Reinstated Member*—Herbert R. Glenn, State College.

CHESTER: *Resignation*—David H. Keller, Pennhurst.

CLARION: *Removal*—Paul R. Lecklitner from Rimersburg to Nanticoke State Hospital, Nanticoke.

COLUMBIA: *Transfer*—George P. Moser, Ringtown, from Schuylkill County Society.

DAUPHIN: *New Members*—C. W. Batdorf, 1117 N. Second St.; Harold B. Wood, 3016 N. Second St.;

Ralph M. Hursh, 709 N. Third St., Harrisburg. *Removal*—B. Cecilia Shmukler from Philadelphia to 5720 Hobart St., Pittsburgh (Allegheny Co.). *Death*—Jacob M. Peters, Camp Hill (Jeff. Med. Coll. '86), Nov. 15, age 71.

DELAWARE: *Reinstated Member*—Charles E. Lawson, 2 Windsor Circle, Springfield.

FAYETTE: *Reinstated Member*—Albert E. Coughenour, McClellandtown. *Removal*—Benjamin Halporn from Uniontown to 1458 Market St., Harrisburg (Dauphin Co.). *Death*—Jacob S. Hackney, Uniontown (Jeff. Med. Coll. '85), Nov. 9, age 71.

FRANKLIN: *New Members*—Fassett Edwards, 55 W. Main St.; Robert S. Baylor, Jr., Strand Bldg., Waynesboro. *Transfer*—Charles T. Buckingham, Marion (formerly of Ernest) from Indiana County Society. *Death*—John W. Mosser, McConnellsburg (Med. Chi. Coll., Phila. '99), Oct. 10, age 67.

JEFFERSON: *Removal*—Daniel Ritter from Philadelphia to 97 Fourth Ave., Westmont, Johnstown.

LACKAWANNA: *Reinstated Member*—F. Whitney Davis, Connell Bldg., Scranton.

LAWRENCE: *New Member*—Oswald G. Taylor, R. D. 7, New Castle.

LUZERNE: *Transfer*—George B. Dornblaser, Hazleton, from Columbia County Society.

MONTGOMERY: *New Member*—Joseph L. Barthold, Norristown.

NORTHAMPTON: *Death*—David H. Keller, Bangor (Starling Med. Coll. '82), Nov. 22, age 72.

MONTOUR: *Removal*—H. Arden Kimmel from Reno, Nevada, to State Hospital, Danville.

PERRY: *New Member*—Morris J. Gerber, Duncannon.

PHILADELPHIA: *New Members*—Everett C. Bishop, 5922 Master St.; Oliver S. English, 1508 Allegheny Ave.; J. Paul Giambalvo, 818 N. 63d St.; Israel Levin, Third & Tabor Rd.; Edward T. McNicholas, 4201 Cottman St.; Chester Reynolds, 1806 Spruce St.; Saul P. Savitz, 4957 Pine St., Philadelphia. *Reinstated Members*—James F. Donnelly, 215 N. 36th St.; John W. Froggatt, 1744 Orthodox St., Philadelphia. *Removals*—Wyrrth P. Baker, from Philadelphia to 1861 Wyoming Ave., Washington, D. C.; John P. Duggan, from Philadelphia to 3114 Iowa St., Pittsburgh.

SCHUYLKILL: *Removal*—Angelo A. Gallo from Pottsville to 62 N. Hanover St., Pottstown. *Death*—William N. Stein, Shenandoah (Univ. of Penna. '94), Nov. 23, age 63.

SUSQUEHANNA: *Transfer*—Charles J. Haines, Hallstead (formerly of Philadelphia), from Philadelphia County Society.

TIoga: *Reinstated Member*—Isaac R. Vincent, Mansfield. *Death*—John H. Kiley, Blossburg (Starling Med. Coll. '86), age 72.

VENANGO: *Reinstated Member*—John M. Askey, Oil City.

WARREN: *New Member*—A. Follmer Yerg, 506 Liberty St., Warren. *Transfer*—Tom K. Larson, Warren, from Tioga. *Death*—Frank T. Noeson, Niobe, N. Y. (Univ. of Buffalo '85), August, 1933, age 72.

YORK: *New Members*—Sydney Levy, Andrew J. Lotz, Wrightsville; George C. Martz, 114 E. Market St., York; Roy E. Smith, Hanover.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Nov. 23. Figures in first column

indicate county society numbers; second column, State Society numbers:

1933

Dcc.	1 Allegheny	1274	7701	\$7.50
	Allegheny	8,24-48	40-65	195.00
	Lawrence	1	66	7.50
	5 York	2-5	67-70	30.00
	Beaver	87	7702	7.50
	8 Mifflin	1-7	71-77	52.50
	9 Adams	1	78	7.50
	11 Dauphin	5-7	79-81	22.50
	Columbia	1-10	82-91	75.00
	Fayette	123	7703	7.50
	12 Perry	1	92	7.50
	13 Venango	54	7704	7.50
	14 Montgomery	3-8	93-98	45.00
	15 Adams	2	99	7.50
	Tioga	28	7705	7.50

COMMITTEE ON PUBLICITY

LEWIS T. BUCKMAN, M.D., *Chairman*,
Wilkes-Barre, Pa.

THE EIGHTY-FOURTH ANNUAL CONVENTION

Preliminary plans for the annual meeting, Oct. 1 to 4, 1934, at Wilkes-Barre, indicate that the Section on Urology will meet at the Kirby Memorial Health Center in that city. This is on the invitation of the Wilkes-Barre City Board of Health who are likewise the Directors of the Health Center.

This magnificent building was erected in 1930, a gift to the city from Mr. Fred Morgan Kirby in memory of his mother, Angeline Elizabeth Kirby. Built to last "three hundred years" or longer, no expense was spared to make this memorial an enduring one. Concrete and steel, granite and marble, terra cotta and bronze, all testify to the permanence and beauty of the donor's ideals of a fitting memorial. No exposed part is of any material that will rust or decay within the memory of any living man or his grandchildren. Interior finish is of oak with lavish use of bronze, marble, and tile.

Here are housed the United Charities and the Catholic Charities, the City Health Department and the local offices and clinics of the State Health Department, a Dental Clinic, the Luzerne County Social Hygiene Society, the Mental Health Association, the Mother's Assistance Fund, the Wilkes-Barre Visiting Nurse Association, the Wyoming Valley Crippled Children's Association, and the Wyoming Valley Tuberculosis Society.

The Health Center is nearly directly across the street from the Irem Temple, proposed headquarters for the annual meeting, and within a block of the Mallow-Sterling Hotel, hotel headquarters. Inspection of this magnificent memorial will be one of the privileges of a visit to Wilkes-Barre in 1934.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

Modifications and interpretations of the *Rules and Regulations** of the State Emergency Relief Board will be published each month under the heading given.

To: The Medical Advisory Committees and Component County Societies and Directors of Relief of County Societies.

The recommendation of the Medical Advisory Committee of the State of Pennsylvania regarding relaxation of the rules insisting on prenatal care of the individual should now be interpreted as follows:

Prenatal care should be given in all cases where and when possible but cases delivered prior to March 1, in which the complete prenatal care has not been followed owing to the inability of the doctor to contact the patient, will be accepted as having complied with the rules and regulations governing obstetrical care and be paid for. Cases delivered March 1 and after must have a complete prenatal program carried out as outlined.

To: The Presidents, Secretaries of the County Societies, and Members of the Advisory Committees.

In addition to the modification regarding obstetric care, the State Advisory Committee has suggested to the Medical Relief Board that the following modification be made regarding the care of the patients by salaried physicians.

First: Physicians on salary by Poor Boards of city or county may accept medical orders where they can show that prior to January 1, 1933, said individual or family was on their books as pay patients even though since that time they have been attending them as a result of their having been on the relief list, and the request for attention came through their employer, Poor Board, etc.

Second: School physicians whose work has been the inspecting of children and referring the particular child to the family physician for attention, may accept medical orders keeping in mind the fact that solicitation is not permitted.

To: Chairmen, County Emergency Child Health Committees.

From: Samuel McC. Hamill, M.D., State Chairman.

In the light of the development of the medical relief work, there are certain factors that become very important functions of our Emergency Child Health Committees, as they have a direct bearing not only upon the work we are doing but also in locating cases which should have medical supervision under the medical relief regulations, for which the attending physician will be compensated. They will also in considerable measure lessen the burden of the physicians.

I. THE EXPECTANT MOTHER

From the beginning of the work of the Emergency Child Health Committee we have emphasized the importance to the child and to the mother of providing for the expectant mother in bringing her to the doctor for examination and in having him keep her under proper supervision during pregnancy and in giving adequate care at the time of delivery.

**Cf. PENNSYLVANIA MEDICAL JOURNAL*, December, 1933, p. 256.

It is very important for you to instruct your committee to locate all expectant mothers in families on relief at the earliest possible moment so as to meet the requirement of the medical relief, which becomes effective after March 1, that every pregnant woman for whose delivery the physician will be paid must have had at least 6 prenatal visits. Until March 1 it is expected that as many prenatal visits be given as possible. Your volunteer motor service group can save the physician much mileage by transporting these expectant mothers to the physicians' offices at the time and date he indicates for a prenatal visit.

We are endeavoring to make the work of the Emergency Child Health Committee as broadly educational as possible. Here is a tremendous advantage to use young, unmarried volunteers for a service which will ultimately mean much to them. By the mere process of bringing these expectant mothers to the physicians' offices for a series of 6 visits, they will have had impressed upon them the extreme importance of prenatal care, not only for the safer delivery of the mother but also as a guarantee of protection to the health of the child. When they, in turn, are married and become expectant mothers they will be seeking this same prenatal advice.

II. AIDS TO SECURING MEDICAL ATTENDANCE FOR EXPECTANT MOTHERS, SICK CHILDREN, AND OTHERS SICK IN THE FAMILIES ON RELIEF

Your volunteers aiding the physicians in making examinations should be instructed to see to it that expectant mothers and the mothers of children who in the course of these examinations are found to be in need of medical attendance, apply at once to the county director of relief for such attendance by the family physician, whose name should be mentioned.

The motor messenger volunteers should be instructed when visiting families to inquire as to the health of their members and, if any one is found in need of medical attendance, or an expectant mother is located, they should advise the mother to apply to the director of relief for such attendance and prenatal and obstetrical care, as indicated above.

These volunteers should be given the name and address of the director of relief and should also be instructed to aid mothers in the formulation of letters of application to him which must be signed by the mother, the father, or some near relative.

III. INSTRUCTION OF VOLUNTEERS

(a) *By Physician:* It would seem advisable for the county chairmen to call together the volunteer workers to advise them to be on the alert to make note of the hygienic and dietetic advice the physician gives the mother for the care of her children so that they can aid them in carrying out that advice. They should also be urged to advise all mothers of the value of promptly joining home dietetic classes and to explain to them why these classes are of value. The volunteers should of course know how to secure their admittance to these classes.

(b) *In Respect to Home Visiting:* Volunteers need some instruction in the art of home visiting and interviewing mothers. This instruction could be given by a public health nurse—the State nurse, for instance—a social worker, or one of the investigators of the Children's Aid Society, or the Mothers' Assistance Fund.

Volunteers have been used extensively and very advantageously in some counties both as assistants to the

physicians and as members of motor messenger corps.

The badges for volunteers and the stickers for automobiles, both of which we are prepared to provide, have been found of inestimable value in establishing the official standing of the volunteer with the families on relief. If you are not using them we would strongly urge you to do so.

The educational value to the volunteer of the supervision of expectant mothers has been referred to above. The opportunity that these volunteers will have to observe the physician in making the examinations of children, in recognizing early departure from the normal which parents so frequently overlook, and aiding him in this work will also impress upon them the importance of periodic health examinations and prepare them for the acceptance of such service when later they may have families of their own.

County Society Reports

ALLEGHENY

Nov. 21, 1933

The meeting was held in the ballroom of the Hotel Schenley, Pittsburgh, Nov. 21.

In the lobby of the ballroom was presented a scientific exhibit of drugs and various medicinal agents sponsored by the Pittsburgh College of Pharmacy. Pharmaceuticals, pharmaceutical processes, and technical devices attracted a great deal of interest both before and after the meeting.

Charles W. Morton and Roy R. Snowden reported a case of amebic dysentery, a subject now of interest in view of the Chicago cases, which are being investigated and reported from various parts of the country. The patient, a salesman, age 50, had been well until 3 weeks previously. His first complaints were slight headache and slight pain in the right epigastrium. In a few days his temperature was 102° F., with more soreness in the right upper abdomen. After 2 weeks he vomited for the first time and began to hiccup from 5 p.m. to 1 a.m. except for 2 hours. Bowels were regular and history negative. Nine years ago he had had pneumonia, and was ill for 6 months. Seven years ago he had an attack of hiccoughs lasting for 3 days. He is now toxic in appearance and acutely ill. There is limitation of expiration at the right base, the right diaphragm is high with no breath sounds here. The heart shows a faint systolic murmur and there is a mass at the right costal margin. The provisional diagnosis was subdiaphragmatic abscess on the right side. Stool examination showed endamoeba histolytica, blood, and pus. He was given emetin hydrochloride subcutaneously, gr. $\frac{3}{4}$ twice a day, for 6 days, and was discharged on the eleventh day.

Roy R. Snowden, in discussion, pointed out that the prompt response to emetin might be used as a therapeutic test. The incubation period is variable, and other cases characterized by hepatitis may occur.

John M. Johnston, Pittsburgh, read a paper on "Failure of the Pulmonary Circulation." There is a dearth of information on this subject. The author, in dealing with acute failure, bases his discussion on clinical observation and necropsy findings in 13 cases, 11 showing extensive pulmonary thrombosis, and 2, massive pulmonary embolism. Failure of the pulmonary circulation may be as follows: Primary acute failure, caused by primary thrombosis of the pulmonary arteries, one

of which was seen in this group; secondary acute failure, seen as a result of embolism, or of thrombosis following embolism, pneumonitis, or chronic passive congestion of the lung. The source of the embolus may be a mural thrombus of the heart or a peripheral thrombophlebitis. Of 110 cases of phlebitis in Mercy Hospital in the past 5 years, 68 have followed operative measures, and of these 68, there have been 32 that followed pelvic operations, and 6 others occurred in the puerperium; primary chronic failure, which occurs only in pulmonary arteriosclerosis (Ayerza's disease), rare in this country, but reported occasionally by South Americans. It has been seen once at necropsy in their experience; and secondary chronic failure, extremely common. Byron D. White says that from 60 to 65 per cent of all cardiac patients manifest this condition, often years before the classical picture of circulatory failure appears. It is seen also in advanced emphysema (one case), fibroid tuberculosis, and chronic nontuberculous pulmonary lesions.

The symptoms in general are those of interference with oxygenation of the blood. Whether primary or secondary, the first symptom is breathlessness on exertion; the earliest signs, tachycardia, exaggeration of the pulmonic second sound, and decrease of vital capacity. Paroxysmal pulmonary edema or cardiac asthma and increase in the shadows of the pulmonary trunks of the roentgenogram appear relatively early. Cyanosis is an early sign with Ayerza's disease, pulmonary disease, and congenital heart disease. It appears later in ordinary cardiac failure. Diagnosis depends upon the etiologic factor and amenability to treatment. If due to inefficiency of the left ventricular action there may be great prolongation of life and health may be obtained by adequate rest and medication.

Acute failure may be fulminant or acute. Fulminant failure results from a large embolus occluding the pulmonary artery or a major branch. Death occurs in from a few minutes to $1\frac{1}{2}$ or 2 hours. Two of the 13 necropsy cases were of this character. There is no pain and no physical sign within the chest. Diagnosis rests on a history of previous operation or phlebitis, and the sudden onset of symptoms. Simple acute failure is usually due to thrombus in the pulmonary arteries. One case followed a clinically resolved bronchopneumonia. Others showed thrombophlebitis, pelvic or peripheral coronary occlusion with mural thrombus in the right heart. Others resulted from auricular thrombus in a fibrillating heart. The extent and character of the physical findings within the chest are of no value in estimating the extent or severity of the thrombus.

The salient points in the diagnosis are: History of operation, labor, phlebitis, or acute respiratory infection; evidence of cardiovascular disease; dyspnea, which is absent in recumbency, but becomes intense on exertion or excitement; cyanosis out of proportion to the apparent signs; tachycardia; extreme apprehension; and a pale lavender tint to the cyanosis. Pulmonary thrombosis is extremely fatal, but 2 patients seen in the past year have recovered. The usual course is a progression of the symptoms over a number of years, and death. Death is apparently due to anoxemia. The prognosis of acute pulmonary vascular failure is extremely grave. Therapeutic measures are futile. Oxygen and cardiac stimulants may be of value, with the hope that the thrombus will stop.

In discussion, Roy R. Snowden, Pittsburgh, called attention to two factors: 1. The pulmonary circulation is a closed one, and any abnormality may remain limited for a variable time before going over into the general circulation. Dyspnea is the most significant symptom

and is seen in carcinomas with metastases in the lungs with negative physical examination. 2. Ascending thrombosis of the bronchial artery may not give the usual signs. Some emboli may be the seeds of thrombosis, and impede the lesser circulation. They may arise from arteriosclerosis or severe lung infection. One must think of increasing pulmonary thrombosis after operation in case of increasing dyspnea not explained on any other basis. Harry R. Decker, Pittsburgh, stated that in cases in which the situation is not too deep, surgical removal of the lesion may be attempted. The operation has been done abroad with a 25 per cent operative recovery. The time is short for teamwork, which should be organized. In Germany in these cases, owing to teamwork, the chest may be opened within an hour's time.

Joseph H. Barach and D. Hartin Boyd, Pittsburgh, read a paper on "Generalized Edema, Water Retention, and Its Response to Intravenous Acacia." The term "myocardosis" is replacing the more exacting term "myocarditis." The clinician does not wish to be faced with a report of "no evidence of myocarditis" in a patient whose death certificate has been signed chronic myocarditis with cardiac failure. The term "nephrosis" is replacing the term "nephritis." It is undoubtedly better for the clinician to employ a term which may be used in the clinical sense, rather than one which has a well-defined meaning in pathology. The older classifications of acute, subacute, and chronic nephritis; chronic parenchymatous and chronic interstitial nephritis of the classical literature of the day are being set aside in favor of such designations as simple or toxic nephrosis, bile nephrosis, chemical nephrosis, the nephrosis of pregnancy and eclampsia, the lipid and other nephroses. In the last analysis, it is probably better not to confuse clinical and pathological concepts of the various diseases.

The most striking clinical findings in lipid nephrosis are generalized edema and profuse albuminuria. To establish this diagnosis, certain criteria must be met; there is usually a history of some antecedent acute systemic infection, the appearance of a severe albuminuria, oliguria, ability to concentrate urine. There is an absence of hematuria. While this goes on, edema increases progressively to a point of anasarca.

Laboratory findings reveal a high cholesterolemia, low serum albumin, high serum globulin, amounting to an actual reversal of the normal proportions of each. There are doubly refractile lipoids in the urine. The fluid in the extremities is clear, while the abdominal ascitic fluid is turbid.

There is a tendency to a complicating pneumococcal peritonitis and death.

The edema in this disease syndrome is not due to renal destruction, nor to renal impermeability to water, because when the proper drug is administered, in our cases this drug was acacia, the output arose from 180 c.c. in 24 hours to 3600 c.c. per day. Nor is the edema due to a faulty chloride metabolism. A salt-free diet did not improve these cases, nor, did Fisher's solution have any favorable effect in a number of such cases treated in the past.

Edema and hypoproteinemia go hand in hand. When the albumin fraction of the serum falls to about 2.5 grams per 100 c.c., there is a fall in the colloidal osmotic pressure of the blood and edema develops rapidly. Hypoproteinemia from other causes may produce this same edema, as seen in chronic diarrhea with a continued loss of albumin by the bowel; in disturbed nutritional states brought about by an insufficient supply of protein; and in starvation or war edema, etc.

Various treatments have been used in these cases. Thyroid extract, low salt diet, potassium bitartrate, calcium lactate, calcium gluconate, salyrgan, high protein diet, *etc.* None of these proved effective over a period of 9 months in 1 case and 7 months in the other. Paracentesis abdominalis with removal of 3100 c.c. at one time and 6100 c.c. at another time caused temporary improvement only. There was tendency to recur.

Acacia intravenously, as used by Hartmann, produced a prompt and remarkable diuresis, accompanied by a diminution in the albuminuria and a restoration of the normal albumin-globulin ratio in the blood. With this there was a steady disappearance of the edema and clinical improvement in the patient. The improvement in these cases was due to the acacia which raised the osmotic pressure of the blood and tissue sufficiently to restore a normal water exchange in the blood, kidneys, and cellular structures.

John W. Stinson, Pittsburgh, detailed the use of acacia in surgery. The great importance of restoring plasma volume in conditions of acute hemorrhage and shock is well known. The need for such an agent that can be available at any time is obvious. Normal salt solution serves to restore the circulation temporarily, but it rapidly leaves the circulation and is, therefore, inadequate in the treatment of hemorrhage and shock. Blood transfusion is the best method, but it is often not possible to give it when most needed, and also there is frequently unavoidable delay before such treatment can be given.

Bayliss, in 1917, demonstrated the beneficial results from the proper use of a 6 per cent solution of gum acacia and sodium chloride in the treatment of traumatic shock. Single and repeated injections of from 700 to 1000 c.c. of 6 per cent solution of acacia have been used to advantage in surgical shock and hemorrhage. In cases of hemorrhage it was found to be of great aid in maintaining the circulation and tiding patients over until a transfusion could be done. In many such cases a transfusion later was found to be unnecessary especially in the less acute cases of hemorrhage. Great care should be used in the preparation and administration of this solution. There is now on the market a properly prepared solution in ampules, which is a mixture of acacia and salt to be added to sterile distilled water. In general, and this is important, the solution should be warmed to about 100° F. and not given faster than 20 c.c. or so a minute, in order not to increase the plasma volume too rapidly. We have not given over 700 or 800 c.c. at any one time as a rule and it usually was not repeated.

The usual results from giving the acacia solution were: An increase in blood pressure in all and usually it was well maintained after injection; a decrease in pulse rate with marked improvement in volume; the respirations usually deepened; and there was an increase in urinary output generally and the blood urea was lowered, the latter probably due to dilution. No harmful chemical changes found in the blood after its use. A leukocyte count could not be made by usual methods for about 4 days because of the acacia in the counting chamber but after that no noticeable changes were found. Six days is the average time required for the complete disappearance of the acacia from the blood.

Injurious effects on the kidneys were not seen and no pathologic changes resulting from acacia were found at necropsy.

John W. Shirer, Pittsburgh, called attention to edema in hypoprotein cases owing to low protein and some

other factor, now unknown. Edema is seen in multiple myeloma. Months may be required to raise the protein by dietary measures. Adolphus Koenig, Pittsburgh, inquired about reactions from the use of acacia intravenously. Joseph H. Barach, in closing, said they had not seen any reactions from the use of acacia. The patient feels slightly warm. The solution should be pale yellow, and not dark brown, and should be clean. The additional salt enhances its value. The effect is on the metabolism of the cells. There are no severe reactions in the use of the proper solution.

Samuel G. Major, Pittsburgh, read a paper on "Tumors of the Mouth and Jaws." Tumors arising in and about the mouth differ from tumors found elsewhere in that the special tissues found in this region may give origin to various types of neoplasm. The paper included only a brief consideration of some of the general tumor types as well as of a few of the tumors indigenous to the oral cavity.

Hypertrophy of the gums is a peculiar condition, which consists of a hypertrophy of the submucosal connective tissues. The lesion has been compared with the subdermal fibrosis in keloid formation, although true keloids rarely occur in the mouth. The treatment consists in resection of the hypertrophied tissue, and sacrifice of many otherwise normal teeth often becomes imperative in order to cure the condition.

Mucosal cysts are most commonly seen on the buccal and the labial mucosa; they are comparable with the sebaceous cyst of the skin and require complete excision or marsupialization in order to effect a cure.

Fibromata of the mouth are usually of the hard variety, but a soft type is sometimes seen which simulates a lipoma.

True myxomatous are rare occurrences in the oral cavity, and many tumors so classified are really edematous neoplasms of a different nature.

Lipomata occur usually about the floor of the mouth or on the buccal mucosa. The so-called "double tongue" may be due to such a growth.

Lymphangiomas include 3 possible etiologic types: (1) A congenital group; (2) a heteroplastic formation in granulation tissue; and (3), a neoplastic group.

Aneurysm of the blood vessels about the mouth must be borne in mind in considering tumors here, as elsewhere, since a tardy consideration of such a possibility invites disaster in a small group of cases.

Mixed tumors occur most commonly in the parotid, occasionally in the submaxillary, and rarely in the sublingual gland, palate, lips, and elsewhere. Complete excision effects a cure.

Carcinomas of the lips, cheek, and tongue comprise a large important group of the tumors of the mouth. The combination of surgery (preferably electrosurgery), radium, and deep roentgen-ray therapy offers the best possibility of cure in the largest number of cases, supplemented by block dissection of the glands of the neck. Certainly we should be able materially to decrease the mortality of cancer of the mouth, a region so ready of inspection and access.

The value of the roentgen ray is beyond question as a diagnostic procedure, but even yet biopsy has not been accorded the place it so justly deserves.

Giant-cell tumors of the maxilla and of the mandible, excluding the so-called giant-cell epulis, are of fairly common occurrence. Treatment consists of excision with subsequent deep roentgen-ray therapy, since these growths are very responsive to the latter. Fibromata sometimes occur within the substance of the jaw. Chondromata are usually lobulated, are firmer than the

fibromata, and may or may not show varying degrees of calcification. Osteomata are firm, slow-growing neoplasms. Treatment consists in excision.

The growths presumably derived from the tooth germ include the radicular cysts, dentigerous cysts, adamantinoma, and a large group of rather rare, poorly classified, composite growths.

Various types of malignancy are seen in the bones of the face. The earlier diagnosis and the more complete eradication of mouth malignancy is the plea of oral surgery.

In discussion, Albert A. Bornscheuer, Pittsburgh, stated that hemangiomas do not respond well to roentgen-ray and radium treatment; a good result can be obtained with boiling water injections and later excision. Biopsy should be done in all doubtful cases of growth about the mouth. Leukoplakia is to be considered a precancerous lesion. In syphilitic lesions very frequently carcinoma occurs on top of the specific lesion. A biopsy should be done if there is no response to specific treatment.

GEORGE R. HARRIS, *Reporter*.

BLAIR—NOVEMBER

The regular meeting was held Nov. 28 at 3:40 p. m., in the Nurses' Home of the Altoona Hospital, John R. T. Snyder presiding.

Benjamin L. Hull gave a summary of the almost completed work of the committee on Child Health Conservation, thanked the members for their coöperation, and brought up the question of what measures should be taken to vaccinate and inoculate those children who need it.

It was agreed that those children on the Emergency Relief who needed vaccination and inoculation be returned to the physicians' offices and have this done, the Relief Board furnishing the materials.

W. K. Mathewson read the scientific paper entitled "Cystoscopy as an Aid to Differential Diagnosis." He presented case reports accompanied by lantern slides demonstrating the value of a cystoscopic examination as an aid in diagnosing lesions of the appendix, gall-bladder, mesentery, colon, and female viscera. The ease or difficulty encountered in introducing the cystoscope, the alteration in the contour and capacity of the bladder, the course of the ureteral catheter and the location of the renal pelvis are factors that suggest the possibility of lesions in closely associated or remote viscera. A cystoscopic examination is especially helpful in eliminating the diseases of the genito-urinary tract during an attack of acute obliterative type of appendicitis with urinary symptoms. In this type case, a cystoscopy promptly performed will rule out the presence of a renal or ureteral calculus and indicate the necessity for early abdominal exploration, thereby preventing a fatal peritonitis.

JOHN D. HOGUE, *Reporter*.

CHESTER—NOVEMBER

The regular meeting was held, Nov. 21, at the Coatesville Hospital. Luncheon was served previous to the meeting. The meeting was called to order by President Robert C. Hughes. Edward H. Weiss, Philadelphia, clinical professor medicine at Temple University Medical School, spoke on "Newer Aspects of Diagnosis and Treatment of Renal Disease." Dr. Weiss spoke of the early classification of kidney disease consisting of 2 main groups; namely, parenchymatous nephritis and

interstitial nephritis, and explained that this classification has long since served its usefulness and that the modern classification of kidney disease, includes (1) glomerular nephritis; (2) nephrosis; and (3) renal arteriosclerosis. The classification of glomerular nephritis is further divided into subacute and chronic types. Glomerular nephritis refers to disease primarily located in the glomeruli of the kidney. Such pathology will produce urine of low and constant specific gravity; red blood cells in the urine; trace of albumin, *etc.* This type of nephritis is frequently associated with hypertension. Its etiology is usually of an infectious nature and is very often the result of scarlet fever, streptococcal sore throat, *etc.* Nephrosis is a term used to indicate a degenerating process taking place in the tubules of the kidney. These patients show a marked trace of albumin in the urine and are usually the subject of a severe degree of edema. Nephrosis occurs in such conditions as the kidney of pregnancy; amyloid disease, *etc.* True nephrosis is relatively rare and there is nearly always associated a glomerular nephritis. Too much emphasis has been placed on true nephrosis.

Arteriosclerosis refers to a vascular disturbance taking place in the small arterioles of the kidney. This condition is frequently associated with arteriosclerosis elsewhere in the body and is usually accompanied with some degree of hypertension. In discussing various laboratory procedures useful in the diagnosis of kidney disease, Dr. Weiss laid stress on the phenolsulphonephthalein test, the urea clearance test, and blood urea. As to diet, he deplored the fallacious theory of many years' duration which eliminated protein and salt from the diet of those suffering with kidney disease. He particularly urged moderation in diet rather than a complete elimination of any particular type of food.

A letter from the State Medical Society outlining plans for the payment of physicians for authorized service to beneficiaries of unemployment relief was read and this matter was assigned to the Economics Committee for solution. John A. Farrell made a report for the Economics Committee, which committee recommended that a committee be formed to determine a fee schedule for various localities throughout the county. These various fee schedules must have the approval of the county medical society. Dr. Farrell also spoke of the relationship between the medical society and outside health organizations and wished to emphasize that all such activities should have the approval and advice of the medical society. The president instructed Dr. Farrell to confer with Michael Margolies, chairman of the Committee on Public Health, for the purpose of correlating these various health organizations with the public health work of the county medical society. Robert T. Devereux reported for the Committee on Malnutrition that 798 children have been examined by the doctors in the county and it was found that a surprisingly small number are suffering from malnutrition at the present time.

It was felt that before continuing any charitable health work, the society as a whole should make more definite effort to educate the public in the great amount of free work the medical profession has been doing and to make clear to the public its responsibility in public health matters. The Public Relations Committee, through its chairman, U. Grant Gifford, was assigned the task of making known to the public, the part that the medical profession has played in public charity.

William T. Sharpless urged that the matter of a county health physician be again considered.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DELAWARE (EASTERN BRANCH)

Nov. 28, 1933

The regular meeting was held on Nov. 28, at the Numan-Slook Legion Post, Oakmont.

Pascal F. Lucchesi, superintendent of the Philadelphia Hospital for Contagious Diseases, delivered an address on "Acute Contagious Diseases." He gave the following common characteristics of most contagious diseases: They are contracted by direct or indirect contact; are more infectious in the early stages; organism usually found in the nose and throat; have seasonal prevalence; occur in cycles and run a definite course; usually confer permanent immunity; and, usually occur in childhood.

Maternal immunity is only temporary and does not exist longer than 9 months. There are no known drugs which when introduced into a human will protect against these diseases. There are certain substances which are products of bacteria and which, if introduced into the body in a neutralized or diluted form, will stimulate the production of antibodies, viz., vaccines, toxin-antitoxin, and toxin are substances which will produce active immunity. Blood serum and whole blood are given for passive immunity. Recently placental extracts have been used but it is too early to estimate their real worth.

Contagious diseases are divided into 2 groups: The specific or those caused by a known organism; and non-specific or those caused by an unknown organism or "filterable virus."

Diphtheria belongs in group 1. Before the days of antitoxin the mortality rate was as high as 50 per cent, which with the use of antitoxin has been reduced to 10 per cent. Immunization by the use of toxin-antitoxin is acquired in 6 months; and by the use of toxoid in 6 weeks. Toxin-antitoxin requires 3 injections; toxoid requires only 2. Alum precipitate toxoid recently used requires only one injection. Reactions from toxin-antitoxin are negligible. Reactions from toxoid in children over age 6 and adults are sometimes fairly severe. It is better to start with a small dose such as $\frac{1}{40}$ c.c., $\frac{1}{4}$ c.c., $\frac{1}{2}$ c.c., etc., until the full quantity is given in children over age 6 and adults. The great advantage of toxoid over toxin-antitoxin is because toxoid contains no horse serum and, therefore, does not sensitize to this material; it immunizes more rapidly; and it requires only 2 injections. Any city can eradicate diphtheria by immunizing 33 per cent of its preschool population. He advocates compulsory vaccination against diphtheria.

Pertussis is a disease that occurs in cycles, usually in the fall or spring. In the newborn the mortality rate is very high. Under the age of one the mortality rate is about 50 per cent. Apparently no maternal immunity exists. European workers believe that the disease is caused by a filtrable virus; most in this country believe it is caused by the pertussis bacillus of Bordet and Gengou.

Treatment by vaccine is of great value if instituted early in the disease; begin with a dose of one billion bacteria a cubic centimeter and increase to ten billion by the fourth injection. The administration of placental extracts is in the experimental stage.

During 1932 Philadelphia experienced the largest epidemic of scarlet fever in 40 years. There were 6549 cases with 49 deaths. Fortunately the disease was of a mild type. At the present time scarlet fever cases entering our Municipal Hospital are more acutely ill than in the early part of this year. The cause of the disease is a streptococcus hemolyticus scarlatina. There

are certain details of the Dick test that must be observed and which if overlooked will render the test of no value: Needle and syringe must be boiled in distilled water; arm prepared with soap and water, alcohol, and dried; rubber stopper prepared with alcohol and dried; special type of needle and syringe. Summit needle and MacGregor syringe; squirt $\frac{1}{40}$ c.c. of toxin through the needle before using; read the reaction in a good light 18 to 24 hours after injection; a positive test indicated by an area of redness at the site of injection which measures 10 by 10 mm. in any diameter irrespective of the intensity of the color.

It should also be remembered that scarlet fever toxin is an enetic. Immunization is begun by injecting 500 skin test doses. It is increased at weekly intervals, that is, second dose 2000 skin test doses; third dose 8000 skin test doses; fourth dose 25,000 skin test doses; fifth dose 80,000 to 100,000 skin test doses. After 2 weeks the patient is again tested and if found positive the fifth dose is repeated. In this way more than 90 per cent of persons are immunized.

Reactions must be expected in 10 per cent of cases. They are more common in adults and older children, and vary from a local soreness to nausea, fever, and at times a rash which simulates that of scarlet fever. In order to avoid reactions the following points must be remembered: In children under one year of age 250 skin test doses should be given as the initial dose. Those whose positive Dick test measures 20 by 20 mm. should also receive one-half the initial dose; a light diet is recommended, rest, and a mild cathartic; in some cases 0.1 c.c. to 0.2 c.c. of adrenalin can be added to the mixture; injections are best given in the evening or late afternoon.

Scarlet fever toxoid is in the process of making. Dr. Parke, of New York, has used an ointment. This overcomes most of the reactions but does not produce the same high percentage of immunities as the subcutaneous.

In Philadelphia there have been reported more than 100,000 cases of measles since 1922. There probably existed as many that were not reported. The death-rate varies. Epidemics occurring on virgin soil show a very high rate, 70 to 80 per cent at times. In cities it averages about 1 to 2 per cent. At our Municipal Hospital, rate is about 3 per cent. This is because the Municipal Hospital does not take any cases of measles unless they are complicated by some other condition.

Maternal immunity in measles usually lasts about 6 months. The giving of 30 to 60 c.c. of whole blood from a parent will confer a passive immunity which will protect the child for 2 to 3 weeks. Blood is taken from the parent and mixed with a 2 per cent sodium citrate solution to prevent coagulation. It is then given intramuscularly. To protect patients it must be given before the sixth day of exposure. Convalescent serum is more valuable than whole blood, but because of the time factor it is not practical. Placental extracts have not as yet been used at the Municipal Hospital.

Varicella is a harmless disease. The only danger lies in the fact that smallpox may be mistaken for it. Convalescent serum has been used by Gordon with good results, giving 10 c.c. intramuscularly. It is said to protect about 90 per cent of patients.

In anterior poliomyelitis, the administration of convalescent serum should protect the patient if it is given before the virus has entered the blood stream. Contact serum has been used with some little degree of success. The value of whole blood is doubtful.

Dr. Lucchesi is opposed to the placarding for minor contagious diseases because it prevents better medical

care and interferes with accurate statistics. It promotes an ill feeling between some parents and their family physician. Fumigation of houses is of little value. The use of soap and water and airing is the best means of disinfecting a room.

Interesting points brought out in the discussion were that diphtheria immunization produced by the injection of toxoid or toxin-antitoxin may last for many years. Pertussis immunity by the use of a vaccine will protect for at least 3 years and may be permanent. Scarlet fever immunity by the use of toxin will protect more than 90 per cent of those immunized for at least 3 years. Dr. Harer discussed the economic side and felt that while income from diphtheria cases was a thing of the past, physicians should not allow the scarlet fever situation, especially the immunization, to get beyond their control. Physicians do this work in preference to the city or state health departments. John McKenna warned against the subcutaneous administration of ether in the treatment of pertussis as it causes sloughs. There was a difference of opinion in regards to closing schools to combat scarlet fever. Dr. Lucchesi stated that if the carrier was eliminated from the classroom, schools could remain open. Others considered that the closing of schools had done much to reduce the spread of contagion.

AUGUSTUS H. CLAGETT, *Secretary*.

ERIE—DECEMBER

The annual banquet of the Society was held Wednesday, Dec. 13, at the Erie Club. One hundred and fifteen members were present. There was no formal entertainment.

BENJAMIN GOLDMAN, *Reporter*.

FAYETTE—OCTOBER

The meeting was held in the Medical Hall of the Uniontown Hospital, Thursday, Oct. 5, at 8:30 p.m., with Eben R. Ingraham presiding.

Charles F. Smith made a brief report on the activities of the State and Fayette County Relief Committees discussing the relief work and fees being contemplated for the physicians of Pennsylvania.

The guest speaker was Dr. Petri of Torrence State Hospital who addressed the society on State and mental health. He said in part: At the present time 750,000 hospital beds are occupied—50 per cent of them by mental cases at an annual cost of \$80,000,000. There were 105,000 new mental cases in 1931. In Pennsylvania there are 28,000 mental cases under treatment in the various hospitals. They constitute 8 to 10 per cent of all cases in the United States and are largely cared for at the expense of the State. The number of mental cases in Pennsylvania is increasing at the rate of 600 annually.

Pennsylvania attempts to control this problem in 2 ways: 1. Hospitals. 2. Clinics conducted from district hospitals. There are 7 state mental hospitals. Torrence hospital draws patients from 11 counties of southwestern Pennsylvania. In this State there have also been founded 2 State schools for the feeble-minded, and 1 epileptic colony and institute for defective or delinquent women of childbearing age.

Patients are committed to these institutions on a court order supplemented by the diagnoses or reports of several physicians.

The epileptic colony at Selinsgrove has 400 patients. They constitute only male patients capable of doing

some work. There are 5000 feeble-minded children in Pennsylvania with an institutional waiting list of some 2000.

The defective women of childbearing age are institutionalized at Laurelton which has a capacity of 600 beds. They receive patients on court commitments. The patients must have an intelligent quotient of less than 0.75, or mentality of less than 12 years.

The majority of patients come to a state mental hospital on the certificates of 2 physicians endorsed by county authorities and filled in by the patients' families. Many questions, seemingly unimportant, must be answered by the physician using average care and judgment to prevent legal involvement. The legal papers must be sworn to before a judge or magistrate and not a notary public. The patient must be admitted within 3 weeks after examination.

To obtain commitment of a patient to a mental hospital information should be presented to the court which orders an examination by 2 physicians who present necessary recommendations. Zealous care in paranoid cases should be taken by the 2 examining physicians. It is better to refer commitment of similar cases to the court which shoulders the responsibility occasionally presenting future trouble or suit. Patients can be accepted in a State mental hospital on voluntary commitment but they must make provision for their own maintenance.

Drug addicts or habitual drunkards can be committed by the court and the superintendent of the State hospital. These cases are usually cut off from drugs gradually in 3 or 4 days. A resulting loss of weight occurs but is regained within a month. The State tries to collect part of the expense for such patients. The direct line of relatives only are responsible financially.

At the present time there are 65 mental clinics in Pennsylvania chiefly supervised by the psychiatrist, psychologist, and social worker. Complete histories should accompany cases referred to these clinics which are used as consultations only and not treatment. These clinics serve the following purposes: Diagnosis; classification; recommendations—especially for future treatment, and, contact for paroles.

The future actions to be taken concerning mental cases in Pennsylvania are still doubtful. With 600 new cases developing each year, a new hospital would be required every 2 years.

In 1910, 10 per cent of the mental cases in hospitals were due to alcohol; in 1918, there were 7.5 per cent. Immediately after prohibition there were 2 per cent with a gradual increase to 5 per cent at the present time.

About 50 per cent of mental hospital admissions are returned to society within 1 year on parole.

RALPH L. COX, *Reporter*.

HUNTINGDON—DECEMBER

The Huntingdon County Medical Society met at the J. C. Blair Memorial Hospital, Huntingdon, on the afternoon of Dec. 14. Mr. Robert E. Bell, chairman of the County Emergency Relief Board, outlined the plan for payment of medical services to the unemployed. J. Roy St. Clair, county medical director, led the lengthy discussion on the various features of the plan. General disapproval was voiced in the nature of the maternity payments, the consensus being that it was not fair to pay only a \$2.00 fee for the actual delivery of the patient. Other features of the plan were considered favorable, except that the rural physicians will not be properly compensated should much mileage be concerned.

Harold G. Horton, the retiring president, was complimented on the faithful performance of his duties. He had the longest distance to travel to attend the meetings, and was the presiding officer at every meeting held as well as attending several district meetings.

The following officers were elected: President, William T. Hunt, Jr.; vice-president, Walter Orthner; secretary, John M. Keichline, Jr.; treasurer, Charles R. Reiners; reporter, Walter Orthner; censor for 3-year term, John S. Herkness; delegate, Cloy G. Brumbaugh; alternates, J. Roy St. Clair and Walter Orthner; district censor, Howard C. Frontz.

The annual banquet of the society will be held in January with the dental and pharmacal professions as guests.

A special meeting of the society was held at the hospital on Nov. 28, with Charles R. Reiners, chairman of the committee for emergency medical relief, presiding. He read the rules and regulations of the relief act concerning medical services and answered all questions pertaining thereto. Nearly all the members and several visitors were present. *WALTER ORTHNER, Reporter.*

LACKAWANNA

Nov. 21, 1933

On Nov. 21, David Riesman, Philadelphia, emeritus professor of medicine, University of Pennsylvania, addressed the society on "Subacute and Chronic Non-tuberculous Bronchopneumonia." He described a clinical syndrome characterized by a confluent type of lobular pneumonia of long duration, low fever, impaired percussion note, showers of râles at the base, bronchovesicular breathing, and generally ending in complete recovery.

In the beginning of the disease, typhoid fever is often suspected; toward the conclusion, tuberculosis is frequently considered. The condition is often overlooked because the lung bases are not carefully examined and a low, continued fever is neglected. Related to disease of the paranasal sinuses, poorly treated, the disease is met with at all ages. On physical examination, one finds the signs confined to a lower lobe, most frequently the left, although the signs may shift from one side to the other. There is frequently slight impairment of the percussion note, but rarely much change in tactile or vocal fremitus. On auscultation, there are fine, moist râles, always lobar in distribution and increased by coughing.

The course of the disease is protracted. Generally there is slight malaise following a series of colds or childhood disease. Cough may be slight, severe, or absent. Sputum is scanty, but may be blood streaked. There may be a prolonged, subfebrile course lasting for weeks. At first, the roentgenogram reveals very little, but later, there is evident fibrosis, adhesions of the diaphragm, and bronchiectasis. Improvement of the pulmonary disease rapidly follows clearing of the sinus infection. Although the disease generally terminates in recovery, there may be recurrence with the slightest cold (probably through infection from within). Some cases have led to the formation of bronchiectatic cavities and no complete recovery.

The treatment of the condition is largely symptomatic and should include: Correct diagnosis; rest in bed; local counterirritants such as iodine, and mustard plasters; simple cough mixtures; local, conservative treatment of the sinuses; bathing and massage; high vita-

min diet; vaccine therapy; and the ever important psychotherapy.

In discussion, Aaron S. Cantor mentioned that this condition is often referred to as bronchosisinuitis. Louis A. Milkman stated that in a roentgen-ray study of 1000 children recently reported by Wassermann, it was noted that frequently sinus clouding was associated with basilar lung involvement and increased hilar signs. Byron Jackson stated that many cases which he had examined roentgenologically for the Pennsylvania Tuberculosis Society showed no demonstrable tuberculous condition, despite a typical clinical course. Such cases should also have roentgenograms of the sinuses.

At the meeting of Nov. 28, Floyd Keene, Philadelphia, professor of gynecology at the University of Pennsylvania, read a paper on "Various Aspects of the Treatment of Myomata Uteri." One-fifth of the women past age 35 have myomata and form a major gynecologic problem. Growth of these myomata is dependent upon ovarian function. They rarely develop before age 20 or after the menopause. A tumor developing after the menopause is never ovarian, is frequently uterine, and is often malignant. Generally, growth is slow, but with a poor blood supply, degeneration takes place rapidly. Myomata are associated with a large proportion of all fundal cancerous growths. Still, many require no treatment, particularly in those past the menopause. In younger women, myomectomy is indicated to lessen sterility and repeated abortion.

In suspected cases, examinations should be made at monthly intervals for at least 3 months. Pain, pressure symptoms, and bleeding are the indications for operation in most instances. A decision must be made in each case as to the use of irradiation or surgery. Radium and deep therapy both have their effect by decreasing ovarian function. Of the two, Dr. Keene prefers radium because it may be used at the time of curettage. Good results are obtained from radium therapy: If the tumor is small, no larger than a 3 months' pregnancy; if the patient is of menopausal age; and if profuse bleeding is the only symptom.

Among the contraindications to the use of radium are: Tumors larger than a 3 months' pregnancy; rapid increase in size of the tumor; pressure symptoms; tumors associated with pelvic pain (pelvic inflammatory disease has been found to be an associated condition in 25 per cent of myomatous patients); tumors in young women; symptoms developing from tumor after the menopause; pedunculated tumors; profound anemia; anemia secondary to degenerating tumor; previous pelvic operation; stenosis or blockage of the cervical canal; uncertain diagnosis; extremely nervous patients; and fear of radium. The radium should be placed high in the uterine cavity, well above the internal os, or stenosis may be produced.

In the presence of pain, complications must be suspected. Myomata are painless and severe discomfort generally indicates degeneration. There may be an associated adnexal condition with generalized pelvic inflammatory disease. Endometriomata, or chocolate cysts, must also be considered.

Bleeding after the menopause is due to degeneration or to malignancy. In the presence of advanced anemia, radium is dangerous because of the lack of resistance to infection. Degeneration is frequently the concealed and undetermined cause of profound secondary anemia.

In a recent series of 500 consecutive cases of myomata, radium was used in 22.8 per cent. During the past few years there has been a steady decrease in the use of radium as the contraindications have been more

rigidly observed. In the highly nervous patient, induced menopause by radiation will be a stormy one. In comparison of the aftereffects, subtotal hysterectomy is far more conservative. Poor operative risks are best treated by roentgen therapy which controls bleeding. Deep therapy is also indicated in the presence of pelvic inflammatory disease.

More than 75 per cent of those with symptoms leading to the diagnosis of myoma require operation. Vaginal myomectomy is employed only if the tumor projects; then with gentleness and discretion. Abdominal myomectomy is ideal in young women in whom there is some question of deeply embedded, multiple tumors. With few exceptions, supracervical hysterectomy is the operation of choice. Cancer of the remaining cervical stump is comparatively rare and can be eliminated as a possibility by careful cauterization of the cervix before operation.

In discussion, Albert J. Winebrake stated that we seldom hear of the development of myomata associated with ovarian function. Michael J. Noone considers the indiscriminate use of the roentgen ray and radium has long been an abuse; and that no longer we see the extensive burns which were only too common. It is very interesting to note that follicular cysts may result from myomatous blockade to the uterine canal. Jonathan M. Wainwright stated that the late John G. Clarke insisted on many of the contraindications listed by Dr. Keene, when radium was first used. Surgery is being used much more frequently in these cases than ever before, though the number of cases in which radium has been employed grows less and less. In closing, Dr. Keene said that in his experience ovarian cysts after the subtotal operation have been quite rare. If the ovary is suspended between the layers of the broad ligament, cystic degeneration is seldom seen. Large doses of radium are a mistake. Twelve hundred milligram-hours (the menopausal dose) will give severe menopausal symptoms in 36 per cent. It has been found more satisfactory in 90 per cent of the cases to use 600 mg.-hours (50 mg. radium for 12 hours). If radium is not satisfactory in small dosage, the roentgen ray should be used. Unfiltered radium gives a marked leukorrhea. Filtration by the use of 1 mm. platinum surrounded by 2 mm. rubber is the method of choice.

Dec. 12

The regular business meeting of Dec. 12 was called to order by President Milton M. Rosenberg. Among the reports of the various committees, it was noted that 3400 children have been examined in the Lackawanna County Child Health Round-up, the work to continue through the winter. The Temporary Medical Relief is already active in this district. The physicians' committee in charge is made up of Frederick J. Bishop, John J. Brennan, Leonard G. Redding, William T. Davis, Ray Garvey, and Milton M. Rosenberg. The following were elected to membership: Paul McAndrew, J. J. Grace, J. M. Noecker, A. F. Gombar, C. H. Spalletta, J. W. Scheur, W. E. Spelyng, S. I. Rosenthal, D. C. Gordon, and C. H. Butler.

The following officers were elected: Walter W. Propst, president; first vice-president, Stanley W. Bolland; second vice-president, W. J. Corcoran; secretary-treasurer, Raymond J. Garvey; secretary-reporter, William D. Whitehead; librarian, Byron H. Jackson; reporter, Frederick B. Davies; censor, James J. O'Connor; trustee, Martin T. O'Malley; and district censor, Charles B. Noecker. *FREDERIC B. DAVIES, Reporter.*

LEHIGH—NOVEMBER

The regular meeting of the Society was held Nov. 14, with W. Frederick Herbst presiding. The following conclusions between the Lehigh County Poor District and the Society were presented.

The Lehigh County Poor District is to be responsible for medical services rendered only such persons as are receiving aid from the Lehigh County Poor District, all other cases to be cared for in accordance with a resolution of the county society without charge to the Poor District, it being understood that all cases receiving relief from the Lehigh County Emergency Relief Board and requiring medical attention, will be cared for by the physicians without compensation or with such compensation as may be provided for from some other source.

With regard to such cases as come within the jurisdiction of the Lehigh County Poor District, it is to be understood that:

(1) The compensation of each physician will be at the rate of the prevailing fee in the community in which the physician resides.

(2) No payment will be made for any services rendered, except such as are authorized by the Directors of the Poor in person, or their duly authorized employees. The names of the persons who have authority to request medical services are as follows: The three Directors, the three investigators of the Board and the nurse of the Welfare Association. With further reference to the methods of giving orders, it will undoubtedly be necessary that in some instances orders authorizing medical attention will necessarily have to be made personally or by telephone. In such instances the physician shall always secure a confirmation of such verbal orders in writing from the properly authorized persons giving such orders. When possible, the original order will be in writing.

(3) At the expiration of each month each physician who has rendered services for the Lehigh County Poor District shall render an itemized statement for each patient to whom he has administered during the month, indicating the date on which services were rendered, the kind of service and treatment rendered, the amount of each item, and the total bill. In accordance with the suggestion of your Society, these bills should then be submitted to the Committee of the Lehigh County Medical Society, who in turn are to pass upon the legitimacy of the charges and the amount of such bills, which are then to be submitted to the Lehigh County Poor District for final approval and payment. It is to be understood that no bills will be honored unless passed upon and approved by the committee of the Lehigh County Medical Society, and it is further to be understood that all bills are subject to the final approval of the Directors of the Poor. Any difference as to the propriety of any bills, which may arise between the Directors of the Poor and the Committee of the Lehigh County Medical Society shall be adjusted between them and the physician who has rendered the bill.

These resolutions were the result of negotiations between the Directors and the Society for the past six months and does away with the old arrangement in which the Directors of the Poor appointed physicians in different parts of the County at a stated monthly salary to take care of their medical needs, and react in good to the indigent and the profession.

CLIFFORD H. TREXLER, Reporter.

LUZERNE

Dec. 6, 1933

The regular meeting was held in the Medical Building, Wilkes-Barre, Dec. 6, Charles L. Shafer presiding, 80 members present.

Daniel F. Daley read a paper on "Jaundice." He said in part: With the possible exception of pain, there is no symptom which involves the complexities of diagnosis and the diversity of origin as jaundice. Arising from a host of unrelated diseases, its correct diagnosis requires at all times, intensive study and accurate discrimination.

McNee, of the University of London, has classified jaundice as: (1) Obstructive; (2) toxic; (3) hemolytic. All cases do not fall in these 3 groups. Catarrhal jaundice, for example, acts in an obstructive and toxic manner. There is no specific laboratory test to aid in distinguishing intrahepatic from the obstructive forms of jaundice.

The clinical phenomena are exceedingly important. The skin in such cases is yellow, the sclera are yellow; color of the stools and urine must be noted.

Icterus gravis is a term meaning a rapidly supervening jaundice accompanied by symptoms of intense intoxication and by a severe involvement of the central nervous system which leads to death in a short time. Pathologically, the picture is identical with that of yellow atrophy. It may be a symptom of sepsis; or there is a familial predisposition, and called familial icterus of the newborn. In this a brief but intense jaundice, occurring in the successive offspring of the same mother, leads to a fatal termination. The recurrence of it in subsequent pregnancies has been prevented by the use of 100 grams of liver daily in the last 10 weeks of pregnancy. Familial icterus of the newborn should be distinguished from erythroblastic anemia of Cooley. The age in the latter is 1½ years and the condition develops in those of Greek or Italian parentage. There is a faint yellow tint to the skin. The abdomen is enlarged because of enlarged liver and spleen. Changes are found in the bones by roentgen ray. It has a fatal termination.

Obstructive jaundice is the most common form. The obstruction may occur within the lumen of the duct, in the wall of the duct, or as a consequence of external pressure on the duct. The commonest causes are cholelithiasis, cancer of the head of the pancreas, post-operative stricture of the ducts. Worms, inflammation of the mucous membrane of the smaller ducts, congenital anomalies and aneurysm of the cystic and hepatic arteries are lesser causes. The symptoms are intermittent pain in the right upper quadrant or it may be on the left side, or in the lumbar region or generalized. There is residual soreness, nausea and vomiting. Chills and fever may occur as well as pruritus.

The typical description of cancer of the head of the pancreas is that of a painless jaundice which deepens rapidly, in an older person, with a palpable gallbladder and a rapid loss in weight, with associated gastrointestinal symptoms. A number of cases are atypical.

In the toxic form phenolhydrazine, carbon tetrachloride, chloroform, phosphorus, cinchophen, arsenic, and poisonous mushrooms affect the liver. Acute, intense, widespread necrosis of the liver may result. Similar changes may be observed in yellow fever, Weil's disease, congenital syphilis and as a terminal event in Laënnec's cirrhosis. Jaundice of the toxic type, with direct reacting bilirubin in the blood, develops. The urine is dark, stools are light colored.

Syphilis of the liver is usually associated with jaundice. The congested liver of the failing heart, acute exophthalmic goiter, toxemia of pregnancy, may exhibit jaundice as a symptom.

Every case must be thoroughly studied. In the history inquiry should be made regarding familial attacks of it, previous attacks, pain, chills and fever, whether or not the patient has been exposed to drugs or industrial poisons, or an operation on the biliary system.

Laboratory studies should be done. They include urinalysis for bile, Wassermann, blood count and blood smears, fragility test, icterus index, van den Bergh, biliary drainage, liver function tests, feces for bile, blood and parasitic ova.

In treatment, the etiologic factor must be determined and eliminated. General supportive measures are important. A high carbohydrate diet is needed. Glucose is given intravenously as it reduces the working load of the liver, corrects metabolic derangements due to hepatic insufficiency, aids in detoxication. At the Mayo Clinic they have been using calcium sulphide in a one per cent solution with the intravenous glucose. Lactate, gluconate, or carbonate of calcium are used.

Biliary drainage is of value. It is a means of draining toxic material from the biliary system. Blood transfusion may also diminish the toxemia and should be given in the cases of a hemorrhagic tendency. For itching, calomel, colloidal baths, phenol in lead water, and bismuth are of value.

In discussion, Gordon E. Baker said that the difficulty in diagnosing jaundice is in those with and without pain. Only 50 per cent of cases of jaundice have pain; in cases of stone in the common duct 55 per cent have no pain; and in cases of stricture of the common bile duct, 25 per cent have pain. Angelo L. Luchi said history is very important and he has made an outline with 38 questions to follow.

Dr. Daley, in closing, said, roentgen ray is of no value if one is jaundiced as the dye is poorly secreted. Biliary drainage is of value. History is of importance. When to operate, coagulation, and bleeding time are important. Never operate if the coagulation time is over 8 minutes. Repeated glucose intravenously and blood transfusions aid in preparing the patient.

Cyrus Jacobosky gave the case report of a child age 7 months; illegitimate; chief complaint, swelling on the left side of the chest. Roentgen ray revealed absence of the fourth, fifth, sixth and eighth ribs of the left side. The lateral views showed an absence of some of the spinous processes. The child's Wassermann test at birth was negative, and still is, blood calcium normal. The mother was a congenital syphilitic with a negative Wassermann. Nothing was found in the literature reporting cases of congenital absence of the ribs.

MARJORIE E. REED, *Reporter*.

LUZERNE (HAZLETON BRANCH)— DECEMBER

At the regular meeting of the Hazleton Branch of the Luzerne County Medical Society, held Dec. 6, the following officers were elected and installed: President, William V. Coyle; vice president, George F. Burkhardt; and secretary-treasurer, Arthur W. Allen.

Lewis C. Scheffey, Philadelphia, assistant professor of gynecology, Jefferson Medical College, addressed the society on "Gynecologic Problems of Interest to the General Practitioner." The vaginal mucous membrane is squamous epithelial tissue, possessing a glycogenic function; the cervical canal contains glandular epithel-

lumen secreting mucus, alkaline in reaction. The vaginal glycogen and cervical mucus develop lactic acid, dependent upon a normal flora, *B. döderleini*. Vaginal discharges may be either simple hypersecretion (without change of flora), or that of a focal infection (with change of flora). The discharge sometimes seen in virgins after puberty is due to congenital eversion of the cervix, and may prove a very difficult problem to treat. Discharge following the traumatism of labor may be an immediate hypersecretion, or more generally a result of superimposed infection associated with laceration. Treatment with the actual cautery is recommended in these cases, with subsequent follow-up. Regarding the discharge of gonorrheal origin, it is important to avoid local therapeutic measures, if the disease is acute. Cleanliness and rest are the points to be stressed. Chronic gonorrheal discharge is best cared for by eliminating residual infection in Skene's tubules, cervix, or Bartholin's glands. This is sometimes difficult, but again the actual cautery is valuable. Satisfactory results can be obtained in the office, using the nasal type electrode. Other discharges include that due to yeast fungi, which is a yellow coagulated secretion, best treated with sodium perborate (1 dram to the pint), and that due to *trichomonas vaginalis*, which is recognized by finding the flagellate, and the absence of normal flora. Its treatment consists of a cleansing sodium bicarbonate douche every 24 hours; implantation of fresh *B. döderleini* culture; and local chemicals such as carbon tetrachloride in oil, picric acid suppositories, and Lassar's paste.

Gonorrhea is the cause of pelvic inflammatory disease in the great majority of cases, and the postabortal or puerperal types are next most frequent. Tuberculosis and acute infectious disease are very rare causes—rarer than the textbooks lead a medical student to believe. All are familiar with the great difficulty in differential diagnosis between pelvic inflammatory disease and acute appendicitis or ectopic pregnancy. The differentiation is very important because acute pelvic inflammatory disease should be treated with rest, ice bags, Fowler position, and gentle hot douches, rather than surgery.

Uterine displacements are congenital or acquired retroversion (with retroflexion or antelexion); descensus and prolapse; and complete prolapse or procidentia. Though backache, bearing-down sensations, and bladder or rectal symptoms may result, there are frequently no symptoms of importance. Uterine displacements with backache do not necessarily mean cause and effect. All other causes of backache should be ruled out, especially the old-fashioned lumbago, before surgical correction of the displacement is advised. Surgical correction generally is done after the child-bearing period, and was not discussed. The following mechanical methods of treatment which the general practitioner may carry out, were described and illustrated with lantern slides: knee-chest position, pessary, tampon, and douche. Knee-chest position will fail to accomplish results, if the chest is not in apposition with the table, and if the knees are not brought forward sufficiently. Pessary treatment is still valuable. The Smith hard rubber pessary, because it can be fitted and molded is probably best. Douches in the home are most efficacious when taken in a bath tub, with the hips elevated on a bed pan, and the douche bag 2 feet above the vaginal orifice. Rubber tips are good, and have no real disadvantages.

In discussion, John J. Corrigan said that pain and considerable discharge may come from the most trivial ulceration or endocervicitis. He emphasized the curative value of the cautery in lacerations of the cervix.

He practices this treatment in all his cases, as prophylaxis not only against leukorrhea, but also against cancer, for it is becoming more apparent that cancer is often due not only to the lacerations, but also to the secretions and discharge produced. He stressed the value of the pessary. Patients frequently object to it because of a mistaken notion that it may cause ulceration and predispose to cancer. This mistaken idea should be abolished, for if properly fitted and watched, a pessary does no harm. JOHN M. DYSON, *Reporter*.

LYCOMING—NOVEMBER

The November clinic day and the regular meeting were held in Medical Hall at 10:30 a.m. and 1:30 p.m., respectively, with President George L. Schneider in the chair. Luncheon was served in the hospital to 111 doctors and guests.

O. H. Perry Pepper, professor of clinical medicine, and George P. Müller, professor of clinical surgery, University of Pennsylvania Medical School, conducted clinics in the morning and gave addresses in the afternoon.

CASE 1.—A white female suffering from multiple abscesses, 200 of which have been opened to date. She had a previous history of visceropitosis, chronic intestinal stasis, nephroptosis, and nephropexy, as well as pyelonephritis. The abscesses cultured colon bacilli but all blood cultures to date are negative. The temperature chart is septic and chills occur mainly in the morning. She has a tenderness in the back and around through the flank. Various studies fail to show any kidney pathology. All other laboratory studies are negative. Many forms of treatment have been tried without avail. She is steadily growing worse.

Dr. Pepper emphasized the long history of intestinal trouble as possibly being associated with the colon blood stream infection and stressed the importance of attention to the intestinal tract and making a fecal analysis. He recommended iodides to cover any undiscovered mycotic infection and to consider exploration of her perinephritic space or even nephrectomy as a later procedure if necessary.

CASE 2.—A white girl, age 15, now under study for puffiness of upper eyelids, a small cystic mass in the soft tissue of both upper lids, and nephritis. One year ago a cyst was removed from her left upper lid, and biopsy revealed sarcoma. The patient is practically as well today as then with no apparent metastasis or extension. Dr. Pepper tried to connect the conditions of the lids with the nephritic picture. The urinalysis has always shown a heavy albuminous reaction. It was his suspicion that this may be Bence-Jones' protein and if so it would point strongly toward myeloma or allied conditions. Bence-Jones' protein appears mainly in multiple myeloma but sometimes also in myelocytic leukemia—extensive bone neoplasm, and chloroma. The latter disease is usually a disease of childhood and affects the orbit, often leading to exophthalmos. The lesions are bony. There is a group in which confusion results in the classification and in which all sorts of fusions take place, namely; leukosarcoma, chlorosarcoma, leukochloroma, myeloma, etc. Chloromata are green but no one has as yet explained the color. Dr. Pepper recommended roentgen-ray studies of the orbits, ribs, etc. Dr. Müller expressed the opinion that this might possibly be a case of von Mikulicz's disease of the lacrimal glands. The parotids, however, are usually prominently involved. Concerning blood urea studies, one should

always know if a report represents blood urea nitrogen or blood urea. At Dr. Pepper's suggestion, Bence-Jones' protein was tested for the day and found negative.

CASE 3.—A case of complete anuria for 7 or 8 days following an intravenous injection of 0.45 gram neosarsphenamine. The blood urea nitrogen has been slowly rising to 43.6, but with few if any signs of uremia. Dr. Pepper's comment was that in these cases one should not be stampeded into too radical treatment; these patients may recover after incredible periods of anuria. Patients not voiding at all are safer than those voiding but retaining all their nitrogen. Decapsulation should not be used unless absolutely necessary. Just now it might throw the balance toward a fatal issue.

CASE 1.—Dr. Müller discussed a long standing case of empyema in which an extrapleural thoracoplasty had been done recently. He stated that streptococcic empyema is rare in civil practice and that the usual pneumococcic variety should be drained early so as to give the exudate a chance to absorb early before becoming organized and forming pleural adhesions which is the cause of the lack of expansion of the lung in the long standing cases. As soon as diagnosed, the children should be drained through a tube between the ribs and the adults by thoracotomy. The closed method may be used if necessary. In long standing cases he prefers to use such thoracoplastic procedures as will collapse the chest wall down to the lung in order to obliterate the cavity and clear up the infection. These cases take a long time and a series of operations spaced far enough apart to permit building up the patient's reserve between times. The usual complication is bronchial fistula which must be closed before any success in the surgery can be expected.

CASE 2.—Perforated duodenal ulcer in a male age 26. Ten per cent of all perforated duodenal ulcers have no history of previous gastric symptoms. Those coming in after several hours have elapsed, especially if under influence of morphine, may simulate acute appendicitis because of leak down along the ascending colon. One-tenth of the cases are operated upon for appendicitis. Peritoneal fluid from appendicitis is thin and semipurulent but that from a leaking ulcer is thick and dirty looking. Those operated upon under 12 hours yield a mortality of 10 per cent, those under 6 hours, much less; and within 2 hours, almost all recover. Dr. Müller does not believe in doing gastro-enterostomy in these cases unless a markedly cicatricial ulcer is present and destined to block the pylorus. In Europe, certain men doing a great deal of gastric surgery advocate it, but in the hands of those less skilled it should not be done unless pyloric obstruction is to be feared. After recovery these patients should have their focal infection removed, tobacco should be interdicted, and a diet with suitable alkalis continued. In 3 months, they should be restudied for gastric acidity and roentgen-rayed again.

CASE 3.—A fatal case of appendicitis and pneumonia was discussed, the patient finally died of pyelophlebitis. Dr. Müller stated that one must sometimes decide between a right basilar pneumonia and a high appendix causing diaphragmatic signs.

The afternoon program began with an address by Dr. Müller on "Acute Abdominal Emergencies." He said in part that "acute conditions within the abdomen" include mainly the following: Trauma, perforation of a viscus, acute appendicitis, acute infections of the gallbladder and pancreas, pelvic inflammatory disease, ectopic pregnancy, and intestinal obstruction. In a sense,

impacted gallstone or kidney stone might be included or mesenteric thrombosis, although the latter is most rare. Certain unrelated conditions may simulate the acute abdomen very closely, *viz.*, coronary thrombosis or acute conditions of the mediastinum. Acute spontaneous pneumothorax may present all the signs of perforated duodenal ulcer. In one case, acute hemothorax from a ruptured aorta gave symptoms closely resembling pancreatitis. Still another case of thymic tumor with rupture of aorta presented signs indicative of abdominal disease.

If patients with an acute abdominal emergency die, they usually do so from hemorrhage or peritonitis. Regarding the pain of these conditions, it is well to remember that embryologically the gastro-intestinal tube is a straight tube and that it is innervated by the vagus, sympathetics, and sacral autonomics. Whether the condition at the onset is due to spasm or obstruction, the pain will usually be midline. Not until localized peritonitis takes place will the somatic nerves be irritated and indicate the site of the lesion. Thus after 6 to 8 hours in a case of acute appendicitis the pain will localize where the peritoneal irritation takes place, but not at first. All the laboratory helps are worth while. For instance, a high immediate leukocytosis of 20,000 to 30,000 usually occurs in ruptured ectopic. Extravasated blood in any serous cavity is apt to give the same figure. A low leukocyte count in a bad appendix case means that the local inflammation has been more marked than the toxic absorption.

In perforation, roentgen-ray studies of the diaphragm for air beneath it are often of help. Roentgen-ray studies in intestinal obstruction afford little help. The acute cases usually are involved in the small intestine. In case of the colon, the roentgen ray gives better assistance.

In obstruction, the important things are: History of previous operation; the degree of dehydration of the patient. The obstruction is seldom high. The important thing is fluids. It is well to restore these to some extent in most cases that are dehydrated prior to operation.

Distention is due to gas and fluid in the small intestine. Normally the colon absorbs 90 per cent of the fluid, but not so in obstruction of the small intestine. In such a case, if there is no rapid pulse, fever, or leukocytosis, gangrene of the intestine is unlikely. Use the stomach tube and restore fluids for a little while in these cases. The mortality will be less. Then get a careful history and try to determine the cause. The present tendency is not to operate at once. Occasionally pancreatitis may simulate ulcer. A fat subject, with a previous history of indigestion, especially in an alcoholic with early vomiting, severe pain and shock should suggest the trouble. Even here, the later beliefs are to wait for an epigastric swelling before operating, while preparing the patient.

No one can help making a mistake in diagnosis occasionally. Acute appendicitis is usually easy to diagnose. It should seldom be confused with an acute gallbladder. The latent tendency is to operate on an acute gallbladder earlier, just as in acute appendicitis, to avoid perforation. Pregnancy with pyelitis can usually be distinguished from appendicitis with the ureteral catheter, but in doubtful cases, operate. In women it is not so important to distinguish twisted cyst or ectopic pregnancy from appendicitis because all must be operated and a lower incision is applicable to all.

In pelvic inflammatory disease, wait for subsidence.

In regard to appendicitis, there is still insufficient education, as 20,000 deaths occur every year in the

United States. The average age is 28, the most important age in life. Hence it is more important than cancer, since the latter is more apt to occur in the years in which the patient is less useful, average age being 60. The death rate in 1929 per 100,000 was 18. In 1932, it was reduced to 16. In spite of this the death rate is increasing.

John O. Bower's studies in Philadelphia show that these cases are not coming to operation any earlier, a reflection against the medical profession. The virulence may be slightly less because fewer with the disease are dying. There is an actual increase in the number of cases. Under 12 hours the mortality should be about 0; under 42 hours, the mortality should be about 2 or 3 per cent.

In intestinal obstruction there are 3 or 4 main causes. Intussusception, bands, adhesions, hernias, and carcinoma. Hernia is usually obvious. If the patient has been previously operated upon the cause may be seen at once. Peristalsis early will be of the rushing type and pain will be colicky, which helps us to know if we have time to prepare the patient. Carcinoma is usually on the left side in older persons and usually comes on gradually, but at times suddenly. These patients usually come to us in poor shape and the mortality is high unless they can be prepared for operation and anesthesia. In the average case, do a cecostomy and empty the distended bowel. Distention exerts pressure on the kidneys. Roentgen ray and radical procedure can be taken up later.

Traumatic cases always are in danger from hemorrhage or peritonitis. Gunshot or stab wounds should always be explored.

Contusions of the abdomen may be difficult cases to decide. Treat the shock, keep opiates at a minimum, and watch for leukocytosis, fever, *etc.*

In rupture of the bladder do not bother with boric acid but use lipidol and roentgen ray.

In rupture of the spleen, operate at once and remove the spleen. The hemorrhage is profuse and recurrent.

In trauma to the kidney, delay; many recover without operation.

Rupture of the liver if extensive is fatal, the patients usually die on the spot. One with a small rent usually will recover, but must be watched carefully. Pack the rent or suture.

In diverticulitis, there are 2 main types, the slow and the sudden or perforative. Usually the best one can do is to place a drain at the site of pathology.

Dr. Pepper read a paper on the "Practical Importance of the Differential Diagnosis Between Cerebral Hemorrhage and Thrombosis." How often these conditions can be distinguished was the basis of his paper. Paradoxically both conditions can happen in an hypertensive patient. Too often we are satisfied to say it is vascular rather than tumor or other condition. Both sets of patients may be hypertensive, but there may be differences. In the syphilitic, a common cause of thrombosis in all ages, the pathology is an endarteritis with narrowing and disturbance of the intima. Arteriosclerosis seldom causes these accidents in the young. Cerebral hemorrhage is a distinct "blow out" of an atheromatous patch and may occur in middle age. Thrombosis if due to arteriosclerosis usually occurs later. All other causes of thrombosis, such as trauma, embolism, acute infection, *etc.*, are not included in the study.

No rise in blood pressure will perforate a normal vessel. A fall in blood pressure will, however, favor thrombosis. Most of the literature has been on those with increased pressure. Syphilis especially affects the

middle cerebral artery. Hemorrhage especially affects the lenticulostriate artery—a branch of the middle cerebral artery. Embolism may be easy to diagnose because of the youth of the patient, especially if having chronic valvular heart disease. Thrombosis is more apt to have a gradual onset. Thrombosis presents premonitory signs more frequently than hemorrhage, just the opposite of the older belief. During peaceful sleep there is often a drop of 20 or 30 points in blood pressure. During a nightmare there may be a rise to 200, even in the normal patient. During the day there may be slight rise after an ordinary meal but a rise in the afternoon. These swings are greater in the hypertensive. The temperature usually falls prior to a thrombosis, a fact but little recorded in the literature. A single blood pressure reading after a cerebral hemorrhage tells us nothing about the patient's habitual blood pressure. Back data, previous observation, *etc.*, are necessary to know this figure. Thrombosis has often been found at necropsy following a diagnosis of hemorrhage. Incidents lowering blood pressure are: Sleep, mild acute infections, fluid loss as in diarrhea, burns, or excessive perspiration, excesses in eating and alcohol, and indigestion.

Incidents often preceding coronary attacks are: Conditions of prolonged fatigue, travel, emotions like prolonged sorrow, *etc.* Anger and sudden shocks may raise it.

A vigorous athletic man of later years may suffer a cold and become inactive and then have a thrombosis. In this condition the prognosis is better than in hemorrhage. Efforts to lower pressure in some of these patients are bad. Efforts to raise pressure do not do much harm in hemorrhage cases and may do a lot of good in thrombosis. Nitrites thus may be harmful in such a case. Sedatives are usually good.

Drugs to improve cerebral circulation, such as caffeine and alcohol, are the best. Lowering the head of the bed and supplying warmth may help. Not much can be done to prevent hemorrhage. It usually follows sudden effort or emotional stress. Venesection in those with an acute rise is being neglected. Nose bleed often is a good thing.

Hypertensives should receive specific warnings from the doctor (a) as regards thrombosis: In mild acute infections, go to bed, take fluids, have warmth and call the doctor. If he has premonitory signs such as dizziness, confusion, slight aphasia, or temporarily loses contact with his outside environment, drugs to raise the blood pressure may be necessary if his blood pressure is below par. Dr. Pepper has little faith in strychnine but believes in caffeine and alcohol. Excessive fatigue must be prevented and if this has occurred take the blood pressure.

After surgical procedures watch the blood pressure regularly and try to keep it from going down. Cold fluids may lower it while warm ones may raise it. Exhausting diagnostic studies in this patient may be harmful.

In answer to questions, Dr. Pepper stated that spasm of cerebral vessels has been demonstrated and may cause symptoms of thrombosis, but which are less extensive and permanent, but even local brain softening may occur. Venesection does not lower the blood pressure so much. It rather will prevent paroxysmal rises. He agreed that the van den Bergh test may help to distinguish hemorrhage from thrombosis. Spinal puncture is often of help. In the borderline cases of numbness and tingling of the fingers, *etc.*, it is hard to tell what to do, but we should not do too much. The kidney usually stops secreting when the blood pressure drops to 40.

In a hypertensive this level need not be reached to have the same result.

Dr. Müller does not use spinal anesthesia in any case with a blood pressure of 200, or even less than this in a cardiac patient. A good heart is always necessary for spinal anesthesia.

Public Health Day in Lycoming County was thoroughly covered. Mr. J. Clarence Funk, of the State Health Department, gave an address at a combined meeting of the service clubs held at the Lycoming Hotel. Radio talks were given nightly for a week. Talks were given in the schools. The following centers in the county participated: Montgomery, Muncy, Hughesville, Picture Rocks, Jersey Shore, and Williamsport.

The meeting adjourned at 4:15 p.m.

LARUE M. HOFFMAN, *Reporter*.

MIFFLIN—DECEMBER

The meeting of the Mifflin County Medical Society was held Dec. 7, at the Lewistown Hospital. The annual election of officers was held. A. Reid Leopold, of Lewistown, was elected president and reporter; first vice-president, R. T. Barnett, Lewistown; second vice-president, Charles J. Stambaugh, Reedsville; secretary and treasurer, James A. C. Clarkson, Lewistown. These officers will be installed at the annual banquet to be held early in January.

Dr. Leopold acted as representative of the society at Harrisburg at the State Emergency Relief meeting. James G. Koshland, of Lewistown, read a paper on "Labyrinthitis." A patient, suffering from this trouble, was exhibited. The Bárány test was demonstrated by Dr. Koshland, and its significance commented upon.

A. REID LEOPOLD, *Reporter*.

MONTGOMERY—NOVEMBER-DECEMBER

The meeting of the Montgomery County Medical Society was held at the Abington Hospital, Nov. 1. Members present, 40; visitors, 27, from the Abington District. H. B. Wilmer spoke on "Dispensary Abuse." Support for Amendment No. 8 at the coming election was approved. It was also approved to sponsor a health survey of the county by the U. S. Public Health Service. The scientific program, presented mainly by the staff of the Abington Hospital, consisted of a symposium on "Abdominal Pain."

The regular meeting was held at the State Hospital at Norristown on Dec. 6, with 43 members and 1 visitor present. The Emergency Relief Plan was discussed. Joseph C. Doane, medical director, Jewish Hospital, Philadelphia, read a paper on "The Effect of Opium on the History, Literature, Commerce, Peace, and Politics of the World."

WALLACE W. DILL, *Reporter*.

WAYNE-PIKE—DECEMBER

The regular quarterly meeting was held, Dec. 14, at the Wayne Hotel, Honesdale. After the dinner C. R. Park, of Scranton, gave an address on "Orthopedic Conditions Met with in General Practice." He dealt with tuberculosis of joints; poliomyelitis, and atrophic and hypertrophic arthritis.

During the meeting "Medical Care to Recipients of Unemployment Relief" was discussed, and the meeting closed by election of officers for the year 1934. Alfred H. Catterall, of Hawley, was installed as president.

ROBERT C. CANIVAN, *Reporter*.

YORK—DECEMBER

The meeting was held, Dec. 16, President Francis R. Wise in the Chair.

Carroll S. Wright, Philadelphia, professor of dermatology, Temple University Medical School, spoke on "The Treatment of Some of the Commoner Skin Diseases."

He said in part: Clearing up skin eruptions makes a good impression on the patient; results of therapy in dermatology are just as remarkable as in any other diseases with the exception of surgery.

Dr. Wright showed lantern slides and talked briefly of the following diseases: Infantile eczema. The diet and local treatment with compresses to soften the lesions were stressed. Impetigo: Has been frequent this fall because of camp, athletic, and other activities; a lotion and not an ointment should be used; mild roentgen-ray therapy; if staphylococcic, mercurials; if streptococcic, gentian violet. Infectious eczematoid dermatitis. Conditions due to discharge from ear, eye; use weak, hot bichloride and same local applications as in impetigo. Ringworm. Mercurochrome; sulphur, 25 grains to the ounce; salicylic acid; ammoniated mercury; widespread ringworm contracted from animals; in scalp cases, should depilate by roentgen ray accomplishing results in 17 days, and hair will return in 3 years. Lapse of disease under favorable environmental conditions owing to spore forins; frequently contracted in locker rooms, gymnasiums, etc. The fissured hypertrophic types were mentioned. Toxins of organisms in blood stream may produce an epidermophyte. The formula of Whitfield of London was given. Treatment should start as though for eczema, with compresses and lotions; will clear up with roentgen ray. Alopecia areata: Fifty per cent in the region of the hair will get well without treatment; 25 per cent of this 50 per cent will get well with vigorous treatment; probably due to vasoconstriction of blood supply, therefore stimulate, such as, quartz light, tar salves, chrysarobin ointment. Ivy poisoning: Hot boric acid or weak aluminium acetate compresses; iron sulphate or chloride compresses; if injection of or antigens internally, give in much smaller doses than recommended, as may help, and can do no harm. Acne: Do not tell patient will outgrow; 80 per cent treated can bring about destruction of lesions; patients are depressed, are outcasts; is a scarring disease, preceded by comedones; nature's attempt to rid of blackhead causes pus; early treatment, better results; if pustule must be opened, make smallest possible incision; in young persons, soap and water 3 times a day and no creams; sulphur to exfoliate; lotio alba, vaccines, roentgen ray, quartz light, diet, attention to bowels, and to menstruation; use very small doses of roentgen ray or will shrink glands and form scars; sugar curve quickly rises, so limit, but do not eliminate, starches. Yeast, 1 to 1½ cakes a day, in small amounts; suprarenal extract to limit menstrual activity. Seborrheic dermatitis, dandruff: Hair falls out; back of ears, folds of nose; must take good care of scalp, as is parasitic disease; liquid shampoo to remove scales; Charles White's formula; in dry case, use castor oil, but little or no alcohol; in oily case, use strong alcohol. Urticaria: Treat with diet of milk or zwieback and butter. Herpes zoster: In older persons more pain; galvanic current; deep roentgen ray to nerve roots; superficial roentgen ray along course of nerves.

Psoriasis: Diet, low nitrogen intake, as nitrogen stimulates scale formation; active and passive methods of treatment; nothing cures it. Lupus erythematosus:

Intravenous injections of gold thiosulphate will clear up 75 per cent of these; not definitely due to tuberculosis. Epithelioma: Malignant moles, skin keratoses are dangerous if irritated; roentgen ray, radium, after electrodesiccation or fulguration; the more superficial these are, the easier they are to treat.

In discussion, George E. Holtzapple, York, asked if herpes zoster occurs more frequently in syphilitic patients. Dr. Wright replied that it had not in his experience, but may be due to specific treatment.

Raymond M. Lauer, York, asked concerning the use of colloidal gold in psoriasis. Dr. Wright said that in his experience there had been no results with gold. Milton H. Cohen, York, asked about results from the use of trichophyton extract in epidermophytoses. Dr. Wright said it was no good in all his experience, but often preparations applied. Vaccine will be discovered in ringworm; fat-free diet in psoriasis seems unnecessary as nitrogen in diet does harm.

H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

ATTENDANCE AT THE PHILADELPHIA CONVENTION

Mrs. R. Powers Wilkinson, chairman of Credentials and Registration at the ninth annual convention of the Auxiliary, has submitted the following revised and correct list of those attending:

Executive Board	23
Delegates	73
Alternates	40
State members	134
Philadelphia members	182
State guests	35
Philadelphia guests	48
Guests-at-large:	
Chicago, Ill.	1
Bermuda	1
Kansas	1
Delaware	3
	6
Total attendance	541

COUNTY AUXILIARY REPORTS

Allegheny.—The birthday meeting was celebrated in the College Club, on the afternoon of Nov. 28. Dr. William H. Mayer, a past president of the State Medical Society, spoke on "The Auxiliary Looks Ahead." Sarah Jamison Logan sang a group of songs, with Mrs. Charles H. Henninger at the piano. Out-of-town guests included Mrs. L. D. Sargent, of Washington, Pa., president-elect of the State Auxiliary, and Dr. Jean C. Bailey, Greensburg, Councilor of the Tenth District. Mrs. Howard A. Power, new president, presided. Mrs. Linfred L. Cooper, chairman of hospitality, had charge of the tea. Each member received a small birthday cake, adorned with one candle.

The annual benefit party for the Student Loan Fund was held in the College Club, on Friday evening, Dec. 1. There was bridge, dancing, and a buffet supper.

Berks.—More than 30 members attended the November meeting held at Medical Hall, Monday, Nov. 13, at 2:30 p.m.

The business meeting was conducted by Mrs. Well-

ington D. Griesemer who called for reports from various committee chairmen.

Mrs. Irvin H. Hartman was given charge of the Christmas Cheer that the auxiliary furnishes each year in the form of food and clothing for needy families.

Mrs. Richard C. Travis, chairman, the Public Relations Committee, had charge of the program. Mrs. Howard U. Miller, the principal speaker, reviewed the "Costs of Medical Care" from a study of the subject in the *Journal of the A. M. A.* Mrs. Le Roy W. Frederick, accompanied by Mrs. Paul R. Hess, sang solos, and Mrs. David S. Grim gave readings.

Carols, holly, and the Yuletide spirit marked our first Christmas party held Monday, Dec. 11. Mesdames Edward C. Edgerton and Paul R. Hess were in charge of the program. Friends were invited.

Chester.—The meeting held at the Coach and Four Inn, Coatesville, deviated from the usual health interest and members enjoyed a talk on Labrador by Dr. William A. Limberger, West Chester, who spent some time there in a medical capacity.

Luncheon was served previous to the program and followed by routine business. The retiring president, Mrs. John A. Farrell, presented the incoming president, Mrs. U. Grant Gifford, of Kennett Square, who briefly outlined plans for the coming year. Mrs. Howard Mellor, on behalf of the auxiliary, presented Mrs. Farrell with a bouquet and expressed the delight of the group in having Mrs. Farrell chosen for a State appointment. Mrs. Gifford appointed the following chairmen for the ensuing year: *Hygeia*, Mrs. William Evans; legislative, Mrs. John A. Farrell; membership, Mrs. Robert C. Hughes; periodic health examination, Mrs. J. Oscar Dicks; public health, Mrs. Howard Mellor; publicity, Mrs. Howard B. F. Davis; ways and means, Mrs. Joseph Scattergood, Jr.; program committee, Mesdames Walter Webb, Joseph Scattergood, Sr., and William A. Limberger. Plans were made to place *Hygeia* in schools in which it was felt to be greatly needed and appreciated. The principal charity of this group is the Medical Benevolence Fund; \$85 were contributed during the year. The next meeting will be held on Jan. 16 at the Chester County Hospital.

Dauphin.—The executive meeting was held on Thursday, Dec. 14, at the Academy of Medicine, Harrisburg.

On Dec. 12, the Auxiliary gave a Christmas Party at the Harrisburg Civic Club, at which they entertained with a play "Evening Dress Indispensable," which was directed by Mrs. Harvey F. Smith and Mrs. W. Munster Kunkel. Community singing, Christmas carols, dancing, and refreshments followed.

Delaware.—The auxiliary anticipates a year of increase in membership and in activity. With Mrs. Adrian V. B. Orr, in the chair, and a functioning membership chairman, plans are being made to fulfill both aims. The 4 stated meetings of the year will be supplemented by programs arranged by committee chairmen and their coworkers. This plan seeks to give a greater continuity to the auxiliary year, to promote interest, and to knit into the working organization new members and those whose interest has lapsed. The next meeting will be held in the Chester Hospital, Dec. 14, at 8:30 p.m. Dr. E. Arthur Whitney and Dr. Walter E. Egbert will present motion pictures of a trip to the West coast and the Century of Progress Fair.

Erie.—The December meeting was held on Monday, Dec. 4, at the home of Mrs. Elmer Hess. In the absence of the president, Mrs. James D. Stark, the first vice-president, Mrs. Orel N. Chaffee presided. The members donated toys and jellies for Lakehurst Hospital's Christmas cheer.

It was also decided to supply at least 3 needy families with food and gifts for Christmas.

Following the business meeting, bridge was played and tea served.

Montgomery.—Warnings against fakes and frauds in purchasing of pure drugs and foods were given by C. E. Brinton, of Philadelphia, chief administrator of pure food and drugs for this district, at the December meeting of the auxiliary held at the nurses' home. Mrs. J. Newton Hunsberger presided. Mr. Brinton illustrated his talk with an extensive exhibit which showed many injurious articles which are on the market as bait for purchasers.

Mrs. Joseph C. Doane, a past president of the Philadelphia County Medical Auxiliary, was a guest as were members of the hospital nursing staff. Plans were discussed for a supper dance and card party to be given at the Plymouth Country Club, Thursday, Dec. 28. Following the meeting, an informal tea was given.

Mrs. Viola Walker Detweiler was heard in a group of soprano solos.

Northampton.—The regular meeting was held, Dec. 13, at the Hotel Easton. Mrs. Frederick C. Roberts and Mrs. W. Gilbert Tillman were hostesses. After luncheon, the business meeting was held, presided over by the retiring president, Mrs. William A. Finaday. It was voted to pay unpaid bills. The report of the nominating committee follows: President, Mrs. Arthur S. Fox; vice president, Mrs. Carl F. Welden; secretary, Mrs. J. Edward Brown; treasurer, Mrs. R. E. Heacock. Thanks were given by Mrs. Finaday for the cooperation of officers and members for the year 1933.

It was decided to reduce the dues from \$4 to \$3 a year. It was voted to have 3 instead of 2 hostesses each month, and to limit the treasury contribution to \$1.50 instead of \$5, as formerly.

The meeting concluded with the playing of cards. The next meeting will be held at Bethlehem.

Philadelphia.—At the meeting held on Dec. 12, the budget for the current year was reported by the Budget Committee and adopted. Owing to the strenuous work

of the Auxiliary during the latter part of last season in preparing to entertain the convention a sufficient sum was realized to take care of this responsibility and also to make some much needed appropriations. Two hundred dollars were voted to be given to the Aid Association of the Philadelphia County Medical Society for relief of physicians or their families who are in need; \$150 were given the United Campaign of the Philadelphia area, with the request that it be given for hospital needs; and \$50 were allotted to the Red Cross.

Mr. Charles Edwin Fox, former district attorney of Philadelphia, spoke on "Crime Prevention and the Use of Leisure Time." Mr. Fox has long felt a compelling interest in the welfare of the young persons of this city and by virtue of his wide association with organizations which aim to protect, correct, and encourage the future citizenry of our country, is an outstanding figure in every effort of this type which works toward community betterment.

Under the leadership of Mrs. George A. Knowles, of the Ways and Means Committee, a most successful "White Elephant Sale" was held on Friday and Saturday, Dec. 8 and 9.

Mrs. Robert P. Sturr, chairman, the Membership Committee, reported 10 new members since the last meeting.

At least 100 finished invalid shoulder wraps and many toys for the children's wards were made or donated by members for the use of the patients at the Philadelphia General Hospital, which were wrapped in cheery Christmas packages by the Juniors and were taken to the Hospital by them.

A visit to the newly installed planetarium of the Franklin Institute is planned for the near future.

Washington.—The Medical Society of Washington County and its auxiliary held a joint meeting at the clubhouse in McDonald, Sept. 13. Luncheon was served by the Hospitality Committee, chairman, Mrs. Clyde E. Tibbons. The guest speaker for the afternoon was Dr. George W. Crile, of Cleveland, who discussed "The Development and Treatment of Goiter." The formal program was followed by social diversions.

The Oct. 11 meeting was held at the nurses' dormitory. After the business meeting, at which reports from the State Convention were given, a reception was held in honor of Mrs. Larry D. Sargent, president-elect of the State auxiliary. Under the direction of Mrs. James H. Corwin a musical and dramatic program was presented. The county medical society also participated in the reception for Mrs. Sargent. Dr. George B. Woods, recently elected vice president of the State Medical Society, was also honored.

Westmoreland.—At the November meeting, Dr. G. T. Lamon, president of the Westmoreland County Medical Society, talked to the members of the auxiliary on the part of medicine in Westmoreland County and anticipated its future. The program and a business meeting followed dinner held in the United Brethren church, Greensburg.

On Dec. 5, there were 35 members present at a luncheon at the Mountain View Hotel. Officers for the year elected are: Mrs. John S. Silvis, president; Mrs. Charles C. Crouse, vice president; Mrs. J. Wiley Hartman, secretary; Mrs. Howard H. Hamman, treasurer; and Mrs. Charles E. Snyder, Mrs. Louis F. Wilson, and Mrs. U. H. Reidt, directors for 2 years. As guests the auxiliary had its past president and the newly appointed district councilor, Mrs. Louis J. C. Bailey.

Medical News

Birth

TO DR. AND MRS. WM. A. DOEBELE, Huntingdon, a son, John, recently.

Engagements

MISS SYDNEY LEVAN and Dr. Milton H. Kaye, both of Philadelphia.

MISS MARTHA BREWSTER DOUGLAS, daughter of Dr. and Mrs. Henry R. Douglas, Harrisburg, and Mr. Addison Moore Bowman, Jr., Camp Hill.

Marriages

MISS IDA BELLE CARR, Jasper, to Dr. Paul S. Kistler, Kingston, Oct. 25, 1933.

MISS CAROLINE BOBBIN to Dr. Martin J. Patrick, both of Shenandoah, Aug. 26, 1933.

Deaths

MRS. LILLIAN HOLT BROWN, wife of Dr. Maurice Brown, Philadelphia; Nov. 23, 1933.

JACOB SIDWELL HACKNEY, Uniontown; Jefferson Medical College, 1885; aged 71; Nov. 9, 1933.

FREDERICK WILLIAM KNOLL, Reading; Jefferson Medical College, 1914; aged 47; Nov. 29, 1933.

SHERIDAN P. MANSHP, Philadelphia; University of Pennsylvania School of Medicine, 1890; Dec. 14, 1933.

ALFRED G. SMITH, Philadelphia; Hahnemann Medical College, Philadelphia, 1900; aged 54; Nov. 27, 1933.

GUY SCOFIELD SHUGERT, Rochester; University of Pittsburgh School of Medicine, 1897; aged 57; Oct. 5, 1933.

JOHN WESLEY MOSSER, McConnellsburg; Medico-Chirurgical College, Philadelphia, 1899; aged 67; Oct. 10, 1933.

CHRISTIAN HENRY BROWN, Philadelphia; University of Pennsylvania School of Medicine, 1878; aged 75; Dec. 11, 1933.

ROGER WILLIAMS, Los Angeles, Calif. (formerly of Pittsburgh); Jefferson Medical College, 1877; aged 83; recently.

FRANK THEODORE NOESON, Niobe, N. Y. (formerly of Bear Lake, Pa.); University of Buffalo School of Medicine, 1885; aged 72; in August, 1933.

MRS. HATTIE VIRGINIA COHEN, wife of Dr. A. J. Cohen, Philadelphia; Dec. 7, 1933. Besides her husband, a son, Dr. Robert V. Cohen, and 6 sisters survive.

SCOTT WOLFORD LAU, Philadelphia; Jefferson Medical College, 1899, and the Philadelphia College of Pharmacy and Science; aged 57; Dec. 17, 1933. He is survived by his widow and a son.

ANDREW A. FABIAN, Larksville; Jefferson Medical College, 1915; for many years was medical inspector of the Larksville school district; aged 45; Nov. 2, 1933. He is survived by his widow, his parents, 4 sisters, and 8 brothers.

ELIZA SHETTER RAY, Philadelphia; Woman's Medical College of Pennsylvania, 1886; aged 71; Nov. 20, 1933. Dr. Ray was born in Lebanon, Pa., 1862. She continued practice until August, 1932. She is survived by her husband and a daughter.

ISAAC PEARSON WILLITS, Philadelphia; University of Pennsylvania School of Medicine, 1880; member of the staffs of the Orthopedic Hospital and the Germantown Hospital; aged 73; Dec. 11, 1933. He is survived by his widow and 2 sisters.

PAUL W. GREENE, Retreat; University of Maryland School of Medicine and College of Physicians and Sur-

geons, 1900; superintendent of Retreat Home and Hospital; member of the Associated Anesthetists of the United States and Canada; aged 53; Oct. 29, 1933.

JAMES L. COCHRANE, Connellsville; University of Pittsburgh School of Medicine, 1895; aged 63; Nov. 22, 1933. Dr. Cochrane was a graduate of Mt. Union College; a member of the staff of the Connellsville State Hospital; and was president of the First National Bank of Perryopolis.

MRS. ANNA MARIA MACKEVEY BOSTON, wife of Dr. C. L. Boston, Noxen; aged 69; Nov. 5, 1933. Mrs. Boston rendered the faithful service of a country doctor's wife. Before the advent of the telephone, she rode horseback to aid the sick until the physician's return, and helped out in all emergency cases. She is survived by her husband and 3 children.

MRS. LOUIS B. WILSON, wife of Dr. Louis B. Wilson, Rochester, Minn.; Nov. 6, 1933. Mrs. Wilson enjoyed a career outstanding in the field of medical literature. As Mrs. Mellish, she began her activities in the medical library of the Mayo Clinic in 1907. Her book entitled "The Writing of Medical Papers," is a standard guide. In 1924 Mrs. Mellish was married to Dr. Wilson, who survives.

L. ASHLEY FAUGHT, D.D.S., Philadelphia; aged 76; Nov. 24, 1933. Dr. Faught was emeritus professor at Temple University Dental School, having joined the faculty of this institution in 1918 and continued in active service until 2 years ago. From 1906 to 1916 he was on the faculty of the Dental School of the Medico-Chirurgical College. Among those who survive is a son, Dr. Francis A. Faught, of Philadelphia.

DAVID H. KELLER, Bangor; Starling Medical College, 1882; aged 72; Nov. 22, 1933. Dr. Keller was born in Bucyrus, Ohio, in 1861. He was a member of his county and State societies; Burgess of Bangor for 3 years; director of the First National Bank of Bangor and of the Roseto and Portland National Banks; for many years was treasurer of the Lehigh Valley Medical Society; member of the New York and New England Association of Railway Surgeons. He is survived by his daughter and a son.

FRANCIS CALISTUS O'NEILL, Philadelphia; University of Pennsylvania School of Medicine, 1911; on the staffs of St. Agnes' Hospital and St. Christopher's Hospital for Children, and pediatrician at St. Vincent's Hospital for Women; attained the commission of captain during the World War and went to France with the Red Cross where he had charge of care and hospitalization of refugee children; served in both the French and United States unit; aged 52; Dec. 8, 1933, in St. Agnes' Hospital, where he had been confined nearly 2 years.

JOHN M. WERBELL, Philadelphia; aged 46; Dec. 2, 1933, suddenly. Dr. Werbell, a bacteriologist and pathologist, was born in New York; educated in Heidelberg and Odessa; served in the Russian army until the Revolution when he came to the United States; after the Russian-Japanese War he was cited for valor; a member of the Rockefeller Expedition to Africa in 1912, engaged in research work on malaria. Later he was connected with a similar expedition to India; was connected with cancer research at the Temple University Hospital and the Lankenau Hospital. He is survived by his widow and 2 children.

JOSEPH W. ENGLAND, Philadelphia; University of Pennsylvania School of Medicine and Philadelphia College of Pharmacy; aged 70; Dec. 2, suddenly from heart disease at Atlantic City, N. J. He was born in Philadelphia in 1863. Dr. England, an authority on drugs, was research director of the Smith, Kline, and French laboratories, and chairman of the board of trustees of the Philadelphia College of Pharmacy and Science. He was active in legislative matters; was a past president of the Pennsylvania Pharmaceutical Association; and at one time was a member of the re-

vision committee of the U. S. Pharmacopoeia. He is survived by his widow and a daughter.

WILLIAM NICOL STEIN, Shenandoah; University of Pennsylvania School of Medicine, 1894; aged 63; Nov. 23, 1933, at the Locust Mountain Hospital, from pneumonia. Dr. Stein was born at Coat Bridge, Scotland, in 1870, immigrating to this country as a child with his parents. He was a graduate of the Girardville (Pa.) High School and the Millersville (Pa.) Normal School; a member of his county and State medical societies and a Fellow of the A. M. A.; a past president of the Shenandoah Medical Society; for a number of years surgeon-physician to the United States Pension Board; for 20 years surgeon to the Philadelphia and Reading Coal and Iron Co.; one of the first community physicians to be appointed on the staff at the Locust Mountain Hospital; at the time of his death he was surgeon to the Lehigh Valley Railroad Co.

GEORGE JOHN MUELLERSCHOEN, Philadelphia; Jefferson Medical College, 1904; chief of clinic of the genitourinary outpatient department, Jefferson Hospital; member of the teaching staff of Jefferson Medical College for more than 20 years; aged 50; Dec. 18, 1933, following an operation for cerebral tumor.

Dr. Muellerschoen was the son of George Muellerschoen and Mrs. Mary Russ Muellerschoen. He was educated at Friends Central School and later matriculated at Jefferson, where he graduated, the youngest member of his class. He was closely associated with Jefferson Hospital and Medical School throughout his professional life. He was associated in practice with Dr. Thomas C. Stellwagen. He was a member of his county and State medical societies, the A. M. A., and other professional organizations. His widow, a son, and 2 brothers survive.

RAYMOND RUSSELL HETHERINGTON, Pittsburgh; University of Pennsylvania School of Medicine, 1916; aged 42; Oct. 22, 1933. Dr. Hetherington was born in Bentleyville, Pa., April 1, 1891. After graduation from the California (Pa.) State Teachers' College, 1908, for 3 years he taught grade schools in Fallowfield and Somerset Townships, Washington County, Pa. He was president of his class in the senior year at medical school and a member of Phi Rho Sigma medical fraternity. He served his internship at the University of Pennsylvania Hospital, for a period acting as chief resident physician. He served in the medical corps of the United States Army in the World War with the grade of captain, being for a time attached to the medical corps of the British Army, and later to the Pennsylvania Hospital Unit of the American Army. After the war he entered practice in Pittsburgh; was affiliated with the Public Health and Veterans Bureau for 4 years and with the Westinghouse Company for 11 years. He was a member of his county and State medical societies, and the American Medical Association. He is survived by his widow and a daughter.

ALBERT AUGUSTUS REDELIN, Freeland; Jefferson Medical College, 1893; aged 64; Dec. 26, 1933, apoplexy, suffered while officiating as timekeeper at a basketball game. At the end of the first half he went to the dressing room, where he was stricken ill, and later removed to his home.

After graduating from college, he located in Daalsberg, Center County, Pa., where he practiced for 3 years. He then located in Schuylkill County and after practicing medicine there for 5 years, located in Eckley in 1902. A few years later he moved to Freeland and practiced medicine and surgery ever since.

He was surgeon for the Lehigh Valley Railroad Company, the Hazle Brook Coal Company, the Jeddo Highland Coal Company, and the Upper Lehigh Coal Company; served as surgeon in the World War, having been commissioned captain while in the service. He was a member of the Lehigh Valley Railroad Surgeons' Society; his county and State medical societies, and the A. M. A.; Society of New England Surgeons; Amer-

ican Army Surgeons' Society. For more than 20 years he acted as an official at basketball games in Freeland.

He is survived by his widow, a daughter, and a son, Dr. Albert Norman Redelin, of Nesquehoning.

Miscellaneous

DR. H. E. SIMRELL has been appointed health officer of Glenburn Borough, Lackawanna County.

DIPLOMAS WERE AWARDED to 45 nurse graduates, University Hospital, Philadelphia, Nov. 16, 1933.

DR. HUGH R. ROBERTSON, Warren, met with a painful eye injury while out hunting recently, and is now convalescing.

DR. GEORGE T. PRYOR, Sheffield, one of the oldest practicing physicians in Warren County, has been quite ill with cardiac trouble at his home and in the Kane Hospital.

THERE IS BEING ORGANIZED in Scranton a Professional Credit Rating Exchange wherein any physician or dentist may obtain information regarding the paying habits of all new patients.

DR. ROBERT C. BASTIAN, Williamsport, was elected coroner of Lycoming County; Dr. George L. Schneider was elected Burgess of South Williamsport; and Dr. I. T. Gilmore was elected Burgess of Picture Rocks.

DR. GEORGE MILLER, Norristown, was seriously injured Dec. 11, 1933, when he was struck by an automobile in front of his home. He sustained a facial paralysis, fractured hip, fracture of the pelvis, and broken bones elsewhere. He is slowly convalescing.

DR. MARJORIE E. REED, Plymouth, Luzerne County, recently accepted an invitation to become a member of the Editorial Board of the Child Welfare and Public Health Department of the *Medical and Professional Women's Journal*.

THE HOSPITAL ASSOCIATION of Pennsylvania launched Nov. 25, 1933, a fight for hospital exemption from the State's new alcohol taxes, as the taxes will impose a hardship that the hospitals cannot withstand without crippling hospital care.

THE ANNUAL SMOKER of the Philadelphia Alumni Society, Medical Department, University of Pennsylvania, was held at the Penn Athletic Club, Nov. 18, 1933. An illustrated lecture was given by Mr. E. Budd Marter on "Hunting Experiences in the Mountains of British Columbia."

JEFFERSON HOSPITAL has become a member of the Circulating Picture Club of the Philadelphia Art Alliance. It is the first institution of its kind to take advantage of the lending library of beautiful paintings which bring art to sick rooms and convalescent wards.

THE BOARD OF TRUSTEES of the Skin and Cancer Hospital, Philadelphia, gave their fifth annual testimonial dinner to the hospital staff and other physicians, Dec. 14, 1933. Edgar B. Moore, president of the institution, was toastmaster; Dr. Albert Strickler, medical director, was the guest of honor.

WE EXTEND BEST WISHES to Dr. L. S. Willour, McAlester, Oklahoma, newly elected secretary-treasurer-editor of the *Journal of the Oklahoma State Medical Association*, succeeding the late Dr. C. A. Thompson, who had rendered services for 24 years.

THE PITTSBURGH CHILD GUIDANCE CENTER and the Allegheny County Medical Society conducted a public lecture, entitled "Some Mental Hygiene Problems of Today and Tomorrow," given by Dr. Bernard Glueck of New York City, Dec. 7, 1933, in the ballroom of the Hotel Schenley.

THE ENMERLING MEMORIAL LECTURE, under the auspices of the Pittsburgh Academy of Medicine, was delivered by Dr. Russell L. Haden, of Cleveland, Ohio, Nov. 28, 1933, in the Academy auditorium. The sub-

ject of Dr. Haden's paper was "The Clinical Significance of Variations in the Erythrocyte of Man."

DR. PASCAL F. LUCCHESI, acting superintendent of the Philadelphia Hospital for Contagious Diseases, has been appointed superintendent. Dr. Lucchesi has been acting superintendent and chief resident of the institution since the death of Dr. Samuel S. Woody, 18 months ago.

IT HAS BEEN REPORTED that a number of physicians in the vicinity of Pittsburgh have had unsatisfactory financial relations with a representative of an out-of-town printing concern. Members are advised to make certain that such solicitors are trustworthy before making any payments to them.

DR. ROSS V. PATTERSON, dean, The Jefferson Medical College of Philadelphia, was elected president and chairman of the Executive Council of the Association of American Medical Colleges at the annual meeting, held in Rochester-Minneapolis, Minnesota, Oct. 29 to Nov. 1, 1933.

IT WAS A VERY DELIGHTFUL PLEASURE to extend best wishes to Dr. William M. Guilford, of Lebanon, Pa., who celebrated his 101st birthday, Nov. 26, 1933. As was customary he took his usual mile walk to church. Dr. Guilford is the oldest practicing physician in Pennsylvania if not in the entire world, having graduated in 1852.

DR. CHARLES W. LEFEVER, Philadelphia, spoke at the fourth of a series of 9 health talks being given by the Mt. Sinai Hospital, on "Care of the Eyes." Dr. Arthur M. Dannenberger will be the speaker at the meeting held at 8:30 p.m., Jan. 24, at the hospital, 5th and Reed Sts. His topic will be "The Child Who Won't Eat." These lectures are free to the public.

THE AMERICAN CONFERENCE on Birth Control and National Recovery will be held at the Mayflower Hotel, Washington, D. C., Jan. 15 to 17, inclusive. Medical Sessions will be held all day Tuesday with Wednesday afternoon given over to round-table discussion dealing with the establishment and administration of Birth Control Clinics under private medical auspices and in public institutions.

THE 150TH ANNIVERSARY of Harvard Medical School was observed, Oct. 6 and 7, 1933. The medical school was opened, Oct. 7, 1783, with the induction into office of Dr. John Warren as professor of anatomy and surgery, and Dr. Benjamin Waterhouse as professor of the theory and practice of physics, and the exercises were arranged to celebrate that event.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY observed Pennsylvania State Health Day, Nov. 8, 1933. The following papers were read: "Some Reasons Why the Layman Fails to Preserve His Health," James M. Anders; "The Prevention of Mental Disease," Charles W. Burr; and "The Infections of the Respiratory Tract with Special Reference to Prevention," John A. Kolmer.

A PROBATION AND PAROLE SYSTEM, to facilitate the work of the Criminal Court in Lancaster County (Pa.), was put into service Jan. 1. The system, patterned after similar plans used elsewhere, was organized by the court with the cooperation of the county commissioners. Dr. Mary R. Bowman, Mount Joy, was appointed court psychiatrist and superintendent of service.

DR. WILLIAM H. WELCH, Baltimore, age 83, has retired as president of the board of directors of the Rockefeller Institute for Medical Research, a position which he has held since it was founded in 1901. Dr. Theobald Smith, Princeton, N. J., director emeritus of the department of animal pathology of the Institute, has been appointed to succeed Dr. Welch.

A CHILD HEALTH CLINIC for mothers, expectant mothers, and children under age 6, was opened Nov. 29, 1933, at George Wolf School, 82d St. and Lyons Ave.,

Philadelphia, through the cooperation of the Board of Education Medical Inspectors, the Health Department, and the Division of Child Hygiene. The clinic fills a long-felt need in the neighborhood, since the nearest other clinic is some distance away.

JUDGE HARRY S. McDEVITT on Nov. 23, 1933, fined Dr. L. A. Dodies, a Philadelphia physician, \$20 for failing to honor a court subpoena. The Judge rebuked Dr. Dodies and warned him that repetition of his offense would result in a jail sentence. Dr. Dodies explained that his regular day for hospital work was on that day and that he was only slightly acquainted with the case on trial.

THE WOMAN'S AUXILIARY of the Colorado State Medical Society submitted a tentative plan for a Physicians' Benevolent Fund to the Board of Trustees of the State Medical Society of Colorado at the annual state meeting held Sept. 15, 1933. This tentative plan was approved by the trustees and is based on that of The Medical Society of the State of Pennsylvania.

THE FOLLOWING COMMITTEE has been appointed by the Philadelphia County Medical Society as a Medical Advisory Committee to the Philadelphia County Emergency Relief Board, to whom shall be referred all questions in dispute in the County of Philadelphia: C. A. E. Codman, Myer Solis-Cohen, W. Egbert Robertson, Francis Ashley Faught, Nathan Blumberg, I. P. Strittmatter, and George P. Müller, chairman.

THE WEST PHILADELPHIA MEDICAL ASSOCIATION gave a testimonial dinner, Nov. 28, 1933, in honor of President-Elect Moses Behrend of the State Society. Among the speakers were President Donald Guthrie of the State Society; President C. Dudley Saul, State Homeopathic Society; Director of Health, J. Norman Henry; and President Walter S. Cornell, Philadelphia County Medical Society.

THE 47TH ANNUAL DINNER of the Association of Ex-Resident and Resident Physicians of the Philadelphia General Hospital was held at the Philadelphia Country Club, Dec. 5, 1933. The guest of honor was David Riesman, president of the staff. The following officers were elected: W. E. Parke, president; Ruth Hartley, vice-president; George Wilson, secretary-treasurer (re-elected). Harvey E. Schock, retiring president, was toastmaster.

THE FOLLOWING BEQUEST has recently been made: Presbyterian Hospital, Philadelphia, \$25,000, to provide a free room for any Philadelphia school teacher, will of Harry T. Stoddart. Perpetual annuities of \$1000 to the University of Pennsylvania and the Wilkes-Barre General Hospital are provided also, upon the death of his wife, at which time the residue of his \$200,000 estate is bequeathed to trustees of Yale University for the education of needy girls and boys of Luzerne County.

THE ROBERT PACKER HOSPITAL, at Sayre, Pa., on Nov. 18, 1933, received a loan and grant of \$425,000 from the Public Works Administration, for use in completion of a seven-story brick, fireproof hospital with a two-story brick extension. The loan at 4 per cent was secured by first mortgage bonds, payable serially over 30 years. Work can start in 30 days, and public works officials estimated 160 men will be employed 10 months.

THE ANNUAL SCIENTIFIC DAY of the Montefiore Hospital, Pittsburgh, was held Nov. 25, 1933. The program consisted of a clinic on Kidney Disease, Endocrine Disease, and Diseases of Metabolism, conducted by Leopold Lichtwitz, chief of the medical division, Montefiore Hospital for Chronic Diseases, New York City. Luncheon was served at the Hospital. There was a dinner at the Concordia Club, after which Dr. Lichtwitz delivered an address on "Angiospastic Diathesis."

THE ERIE COUNTY MEDICAL SOCIETY held its 24 Annual State Health Day, Dec. 6, 1933. Medical addresses were given in the morning at the high schools

by members of the county society. In the evening at Strong Vincent High School, Erie, Dr. Franklin H. Martin, of Chicago, director general of the American College of Surgeons, gave an address on "Advantages in Maintaining Physical Fitness and Comeliness of Appearance." "Man Against Microbe," one of the leading medical films today, was shown.

ACCORDING TO THE *Philadelphia Record*, Dec. 3, 1933, the German Jewish scientists who have been forced out of Germany by Hitler have organized themselves into a group in England and, under the auspices of a British drug manufacturer, have listed the names of 161 drugs. The secrets of these drugs had hitherto been unknown to British manufacturers, and much against their inclinations British physicians had to prescribe them. Within a short time the group of exiled scientists will manufacture the German drugs in English laboratories.

DR. EMILY VAN LOON, professor of otolaryngology, Woman's Medical College of Pennsylvania, was installed as president of the Graduate Council and Alumnae Association of the College, Nov. 23, 1933. Other officers included Frieda Baumann, associate professor of medicine, president-elect; Ann Thomas, professor of physical diagnosis, vice president; Mary Lehman, clinical assistant in gynecology, treasurer; Miriam Butler, clinical assistant in medicine, secretary.

The council is the executive division of the alumnae group.

THE NEW PENNSYLVANIA AUTOMOBILE LIABILITY SECURITY ACT (safety responsibility) which became effective Jan. 1, will have an important bearing upon the issuance of your 1934-35 operator's license. The new Safety Responsibility Law does not affect, in any way, the issuance of 1934 tags.

Twelve hundred persons lost their lives in auto accidents in Pennsylvania during 1933, and an accident occurs every 12 minutes. More accidents in Pennsylvania are occurring on Saturdays, while Thursday has been apparently the safest day for motorists.

LAST YEAR MARKED the 27th annual weekly postgraduate program of the Lackawanna County Medical Society. The recent remarks of State President Guthrie concerning the lack of facilities which has resulted in a dearth of postgraduate study among the component groups of the State organization makes it even more notable that year after year, their program has included at least 30 speakers, many of national note and occasionally one from among their own members. The success of such an undertaking lies in an active program committee, as well as the cooperation of the membership. Attendance at the meetings averages around 100 and the discussion is quite active.

APPLICATION BLANKS are now available for space in the Scientific Exhibit at the Cleveland Session of the American Medical Association, June 11 to 15. The Committee on Scientific Exhibit requires that all applicants fill out the regular application form and requests that this be done as early as convenient. The final date for filing applications is Feb. 26, 1934. Any persons desiring to receive an application blank, should address a request to the director, Scientific Exhibit, American Medical Association, 535 N. Dearborn St., Chicago, Ill.

CHILD SAFETY WEEK was observed beginning Dec. 4, 1933, in schools, Boy Scout meeting places, and at gatherings of boys and girls throughout Philadelphia, under auspices of the Eastern Pennsylvania Safety Council. Talks on measures to avoid accidents in the home and on the street, which claim the lives of hundreds of children every year were given in class rooms and meetings. Of the 28,000 fatal accidents in homes last year the vast majority were caused by children playing with matches or being scalded by boiling water. Explosions, clothes wringers, and electric shocks from exposed wires also took a heavy toll. Approximately 5 per cent of the victims in home accidents were children under 5 years.

THE ARKANSAS MEDICAL SOCIETY dedicated the November issue of the *Journal* to the memory of William Ray Bathurst, M.D., F.A.C.P., born Nov. 13, 1876, and died Aug. 31, 1933. He was editor, *The Journal of the Arkansas Medical Society*, 1912 to 1933, and secretary, Arkansas Medical Society, 1919 to 1933.

Dr. Bathurst was born in Mt. Union, Huntingdon Co., Pa. He attended the schools in his native county and the State institutions and moved with his family to Philadelphia at the age of 9, where his academic studies were completed. His medical education was at the University of the South, Sewanee, Tennessee, where he was graduated in 1898. Removing to Arkansas he settled in Prescott.

AT THE MEETING of the American Public Health Association in Indianapolis, Oct. 9, 1933, the Sedgwick Memorial Medal for distinguished service in Public Health was awarded to Dr. Milton J. Rosenau of Harvard University. The award is made on the basis of Dr. Rosenau's long and fruitful career in the field of public health, for his remarkably successful 10-year administration of the Hygienic Laboratory of the U. S. Public Health Service where he carried out pioneer investigations on anaphylaxis, for his practical work on disinfectants and on the pasteurization of milk, for his numerous original contributions to bacteriology and epidemiology, for his wise and inspiring participation and cooperation in research on influenza, pneumonia, and poliomyelitis, and especially for the service he has rendered public health workers throughout the world by his classic book on *Preventive Medicine*.

ANOTHER NOBEL PRIZE, the 1933 award in the field of medicine, has been made to an American, Dr. Thomas Hunt Morgan, of Pasadena, Calif.

The United States has had considerable recognition by the Nobel prize foundation, since the death of Alfred Bernhard Nobel in 1896. The awards have been made for distinguished services in physics, chemistry, medicine, literature, and peace. In physics awards have been made to three Americans: A. A. Michelson (1907), R. A. Millikan (1923), and Arthur Compton (1927). In chemistry there have been two Americans: T. W. Richards (1914) and Irving Langmuir (1932). The only previous awards to Americans in medicine were to Dr. Alexis Carrel (1912) and Dr. Karl Landsteiner (1930).

Strangely enough, the only prize in literature to come to an American was that awarded to Sinclair Lewis in 1930. In the service of world peace, Americans have received more awards than in any other field and more than representatives of any other country. They include Theodore Roosevelt (1906), Elihu Root (1912), Woodrow Wilson (1919), Charles G. Dawes (1925), Frank B. Kellogg (1929), Dr. Nicholas Murray Butler (1931), and Jane Addams (1931).

THE FOLLOWING STATEMENT on the Act governing private nursing homes and private hospitals in Pennsylvania has been furnished by the Department of Welfare of Pennsylvania for the attention of our members:

An Act was passed by the Legislature and approved by the Governor, June 12, 1931, providing for the licensure and regulation of private nursing homes and private hospitals within the Commonwealth.

This Act (No. 165) states that it shall be unlawful for any person, copartnership, association, or corporation to operate for profit a private nursing home or private hospital for persons requiring care, treatment, or nursing by reason of sickness, injury, infirmity, or other disability, without a license. It places upon the Department of Welfare the responsibility for investigation and decision as to the adequacy of the facilities of the home or hospital to furnish the type of care and service specified in the application.

Since this Act became effective about 54 private homes and private hospitals have been licensed and a number are pending at the present time. There are, however, many more throughout the State which have not applied, or who are unaware of the necessity of a

license. The Department of Welfare requests all county medical societies to bring this matter before their membership, and to inform the Department of any private nursing homes or private hospitals which exist in their locality.

THE SECOND MONTHLY Post-Graduate Assembly, under the auspices of the Montour County Medical Society, was held at the Geisinger Memorial Hospital, Danville, Dec. 1, 1933, the day being devoted to a symposium on the thyroid gland and its diseases.

The Post-Graduate Assemblies at the Geisinger Hospital are now on their third year and are being attended by an ever increasing number of doctors. The speakers of the day were David Marine, New York; Frank H. Lahey, Boston; Charles H. Frazier, Philadelphia; and William F. Rienhoff, Jr., Baltimore. The papers were discussed by C. H. Frazier, W. Wayne Babcock, Moses Behrend, Philadelphia; E. P. Buchanan, Pittsburgh; J. M. Wainwright, Scranton; and S. J. Waterworth, Clearfield.

Harold L. Foss, chief surgeon of the Geisinger Memorial Hospital, gave an operative clinic in the morning beginning at 7:30 and continuing until 10:30, during which time 7 patients with exophthalmic goiter and toxic, nodular goiter were presented for thyroidectomy. Lunch was served from 1:00 to 2:00 and the program continued from 2:00 to 5:30 p.m. One hundred and seventy-five men were in attendance.

THE LACKAWANNA COUNTY PHARMACEUTICAL ASSOCIATION acted as hosts to the respective county groups of doctors and dentists at the Elks Club on the evening of Nov. 29, 1933. Over 300 dentists, druggists, and doctors met together to enjoy a program of varied entertainment intermingled with short talks by the officers of the assembled societies. The speaker of the evening was C. Leonard O'Connell, dean of the Department of Pharmacy, University of Pittsburgh, who discussed the allied problems of pharmacists and physicians. A campaign has been instituted to urge return to the use of drugs listed in the Pharmacopeia and National Formulary, instead of the more expensive proprietary products, which encourage self-medication.

The Lackawanna County Medical Society returned the compliment, and invited the Pharmaceutical Society to a joint meeting on December 26, 1933, at which time John A. Kolmer, Philadelphia, professor of medicine at Temple University, was the guest speaker, taking as his topic, "The Present Status of Biologic Therapy in the Prevention and Treatment of Disease."

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

ESSENTIALS OF PRESCRIPTION WRITING.

Cary Eggleston, M.D., assistant professor of clinical medicine, Cornell University Medical College, New York City. Fifth edition, revised. 155 pages. Philadelphia and London: W. B. Saunders Co., 1933. Cloth, \$1.50 net.

A short, yet complete, treatment of the subject of prescription writing, presented in a clear, concise manner. Special stress is made of the proper grammatical construction of a prescription. The author has arranged a brief review of the latin grammar of words used in the average prescription. The chapter on vehicles has been revised and amplified. The important chapter on incompatibility is presented in a clear and comprehensive manner.

The book was primarily written for the student in medicine. As such, it will give him a clear and understandable knowledge of the art of prescription writing. It is also a book that can be used by the general practitioner. It will enable him to write more accurate and more intelligent prescriptions.

A TEXTBOOK OF MEDICINE (Third edition.) (By 141 American authors.) Russell L. Cecil, A.B., M.D., Sc.D., professor of clinical medicine, Cornell University, Medical College; associate attending physician, New York Hospital, New York City. And associate editor for *Diseases of the Nervous System*, Foster Kennedy, M.D., F.R.S.E., professor of neurology, Cornell University, Medical College; director, Department of Neurology, Bellevue Hospital, New York City. Third edition, revised and entirely reset. 1664 pages, illustrated. Philadelphia and London: W. B. Saunders Co., 1933. Cloth, \$9.00 net.

The third edition of this Text-Book of Medicine by Dr. Cecil and his score of associates (nearly 150) brings the work up to date. The completeness of this treatise of medicine is well established with the profession. The only necessity of a new edition is to include the contributions since the last edition. The most important developments have been in the field of infectious diseases, especially of the virus borne group; and in the field of metabolism as related especially to the pituitary, suprarenal, and parathyroid glands. There are many changes noted in the entire make-up of the book so as to satisfy the various authors that they are giving to the profession the latest knowledge in their respective fields. We are glad to commend this book to the student and practitioner of medicine.

REPORT TO THE UNITED STATES GOVERNMENT ON TUBERCULOSIS WITH SOME THERAPEUTIC AND PROPHYLACTIC SUGGESTIONS. S. Adolph Knopf, M.D. (N. Y. University and Paris), Major Medical Officers Reserve Corps (Auxiliary); formerly professor of phthisiotherapy at the New York Post Graduate Medical School, Columbia University; etc., etc. Report approved by the Surgeon General of the United States Army. The National Tuberculosis Association, New York City. Price, \$1.15.

The Reports to the Government on The Hague Tuberculosis Conference will be of value to those interested in the aftercare of the tuberculosis patient. The care of the tuberculous former soldiers is a real problem to our government and this review of the work done in certain foreign countries is sufficiently complete to be of real value.

In several chapters Knopf gives careful instruction as to his method of diaphragmatic respiration in controlling tuberculosis. He is certain that this method of lessening the movement in the part of the lung usually affected is helpful. Prof. Christian Saugman, of Denmark, agrees with him as do other authorities in this country and Europe.

In addition there are chapters, illustrated, devoted to the prevention of tuberculosis in children by a course of breathing exercises, out-door-life, etc.

The book has real value for those interested in the prevention of tuberculosis in children and in the aftercare of those afflicted.

1933 YEAR BOOK OF RADIOLOGY. Diagnosis, edited by Charles A. Waters, M.D., associate in roentgenology, Johns Hopkins University; assistant visiting roentgenologist, Johns Hopkins Hospital. Therapeutics, edited by Ira I. Kaplan, B.Sc., M.D., director, Division of Cancer, Department of Hospitals, City of New York; visiting radiation therapist, Bellevue Hospital; director, New York City and Brooklyn Cancer Institutes; associate radium therapist, Lenox Hill Hospital; clinical professor of surgery, New York University and Bellevue Medical College. Cloth, \$7.00. The Year Book Publishers, Inc., 1933.

This is the second edition of the *Year Book of Radiology*, and although an infant publication, the editors, Drs. Charles A. Waters and Ira I. Kaplan, are to be congratulated. They have filled a long felt need in

the field of radiology. This second edition is a decided improvement over the first.

The volume consists of a comprehensive review of all the publications dealing with radiologic diagnosis and radiotherapy. The publication is divided into two small sections: (1) Radiologic Diagnosis; and (2), Radiotherapeutics. The section on Radiologic Diagnosis, edited by Dr. Waters, is divided into 15 departments, 11 of which consist of anatomic divisions; the last 4 cover the subjects of Technic, Teaching, Historical, and Medicolegal. The second section on Radiotherapeutics, edited by Dr. Kaplan, covers the subject from a theoretic as well as practical standpoint, presenting the views of many authors rather comprehensively, covering all the literature for the past year. The first portion deals with radiotherapy, radiation biology, physics of radiation, cancer diagnosis, Grenz ray therapy, injuries of radiation therapy, and with radiation in various anatomic locations.

The volume incorporates the writings of approximately 800 authors, giving a synopsis of their publications. It is often difficult to condense extensive writings in such a way as to be comprehensive and yet not be too lengthy. The authors have succeeded in retaining the important factors of each publication. The editors of both sections have added considerably to the value of the book by injecting a short terse statement of their opinion of the conclusions reached by the original author. It is obvious that it would be impossible to include everything that has been published in a year on a subject so extensive as radiologic diagnosis and therapy. A very important feature of this volume is that the authors have reviewed foreign publications sufficiently extensively to give the reader a fair knowledge of publications to which ordinarily they might be unable to have access, because of the necessity for accurate translation.

The volume is profusely and well illustrated, an essential feature in the publication of any subject dealing with radiologic diagnosis.

The arrangement of the text references permits the reader to learn immediately the source of the original statement. This makes it easy for the student to refer to original articles if more detailed information is desired.

The volume comprises approximately 800 pages. The arrangement of the table of contents and the index together with the index of authors is such as to make it easy of reference. The index particularly permits a review almost at a glance of the most important publications on that subject, the index being mainly arranged in anatomical divisions.

The *Year Book of Radiology* has undoubtedly fulfilled the desire of the authors, as indicated in the introduction on Radiologic Diagnosis in which Dr. Waters makes the following statement:

"It is clearly the purpose of any year book to acquaint the practitioners of an art with the developments in their field. Such a volume is primarily intended for those who do not have access to a large library and for them it should be a source of ready reference. Without losing its character as essentially a year book in radiology, the present volume, it is hoped, addresses an appeal to students and practitioners in other fields."

In the opinion of the reviewer, this volume should be in the hands of every active practitioner of medicine who is in need for contact with radiology. This is especially true since the subject of technic, the smallest section in the book, deals only with such technical matters that tend to indicate improvements in the end result, namely diagnosis, which can be applied by the referring physician as well as the roentgenologist himself.

BEHIND THE DOCTOR. Logan Clendening, M.D., professor of clinical medicine in the University of Kansas School of Medicine and attending physician at St. Luke's and Kansas City General Hospitals, Kansas City, Mo.; member of Board of Governors of the American College of Physicians; and a fellow

in the American Therapeutic Association and the American Climatological and Clinical Association. In 1930 he was chosen by King Features Syndicate to write a daily health article, which is now appearing in more than 250 newspapers throughout the country. Alfred A. Knopf, publisher, New York City. Price, \$3.75.

Logan Clendening has been, and continues to be, a public benefactor. The medical profession, a too large number of the members of which guild continue to take themselves and their opinions, about debatable matters, all too seriously, is deeply in this author's debt.

Concerning Dr. Clendening's former volumes, *The Human Body*, and *The Care and Feeding of Adults with Doubts About Children*, it can be said as it can be truly said of the present work, they contain, *The Truth and Nothing But the Truth*.

Behind the Doctor is a fascinating review of 6000 years of medical history written especially for the information of nonmedical readers but so delightfully phrased as to hold the attention of the professionally initiated. Beginning with the dedication and illuminating introduction to the end of the volume there is not a dull or uninteresting page.

A study of the author's subject matter brings to mind a statement of Karl Marx, "For thousands of years medicine has united the aims and aspirations of the best and noblest of mankind," but it becomes equally obvious to the reader of Dr. Clendening's books that those careless or unscrupulous physicians who "make of a glorious profession a poor trade" exert a far more evil influence on the public and on the medical profession than do all the acknowledged quacks that now, as of old, beguile the sick. *Behind the Doctor* serves to emphasize anew that ancient truth, "the past has made the present, and we, who are alive, have the future in our keeping."

THE STORY OF CHILDBIRTH. Palmer Findley, M.D., Omaha, Nebr. Cloth. Price, \$3. Pp. 376, with 124 illustrations. Doubleday, Doran & Co., Inc., Garden City, 1933.

The Story of Childbirth is one of the most fascinating narratives in human history. Dr. Findley unfolds the story in 14 chapters, each of which abounds in historic events, scientific truths, and consuming interest. The book is written in Dr. Findley's characteristic lucid style, which renders the text especially attractive and delightful to read. Advantageously arranged throughout the book, there are 124 impressive illustrations dealing with both ancient and modern aspects of obstetric practice. It will not be possible to draw a pen picture of all the chapters in detail. The essay will be devoted to a study of those sections which especially appeal to a teacher and practitioner of obstetrics.

It is apparent that a book of this character must perforce direct attention to the mortality associated with childbirth. This course the author has followed and repeated reference is made to the subject now, more than ever before, occupying the minds of both the medical profession and lay persons throughout the world. So far as the status of American obstetrics is concerned, the author has painted the picture in rather subdued tones, but one can readily interpret his thoughts in colors which, though clearly defined in his mind, remain unseen.

Obstetrics in America, it is frankly conceded, is beset with many shortcomings. Try as one will to offer explanations, which do not explain, the time, long overdue, has arrived for the obstetricians of this country to candidly acknowledge the lamentable condition of affairs, courageously face the issue, and institute effective means to overcome the evils encompassing present-day practice.

While numerous writers refute the assertion that the standard of obstetric work in the United States is floating at a low ebb, there are, fortunately, a rapidly increasing phalanx, including in the foremost rank the

(Concluded on page xiv.)

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BOOK REVIEWS

(Concluded from page 364.)

author of *The Story of Childbirth*, who not only perceive the faults, but are valiantly engaged in their correction.

Burton perhaps was justified in enunciating the dictum that comparisons are odious, but, aside from the maternal death rate in America as compared with other nations, it must be acknowledged in all candor that in this country as contrasted with other medical and surgical conditions, the obstetric death rate is far too high.

It is rather a gloomy prospect for the young womanhood of this land to learn that with the birth of the first child, one mother out of 175 is doomed to die. It is probably not generally known that in this country women at the rate of one every half hour, throughout the 365 days of the year, die during pregnancy or its culmination in labor, not to utter a single word with respect to the countless number of others who are permanently disabled by the process.

Moreover, as the author records, disabilities and fatalities are not sustained by the mothers alone. This is only a minor part of the story. Two human beings participate in the process of childbirth and in it there is a lurking danger for both. Babies, too, are exposed and herein is found one of the most tragic features of the whole story.

For every mother who perishes, it is not far off the mark to claim that ten babies are either born dead or die shortly after delivery.

In the registration area of the United States the fetal death rate totals 150,000 yearly. This means that 12,500 babies succumb every month, 2885 every week, 410 daily, 17 every hour, and approximately 1 every 3 minutes throughout the year.

While each chapter in *The Story of Childbirth* conveys a poignant message for both doctors and patients, the chapter on "Martyred Mothers" more than any other clearly points to the necessity of an improved standard of midwifery in the United States.

Since 75 per cent of the maternal deaths is ascribed to three specific conditions—infection, toxemia, and hemorrhage—conditions largely amenable to prophylactic methods, it becomes at once apparent how the present perilous state could be in a large way overcome. No other department of scientific medicine offers a greater field for the institution and practice of preventive means than does obstetrics.

Of all the factors, however, contributing to the inordinately high death rate, both maternal and fetal, in America, delivery by surgical intervention stands in the front rank. This phase of obstetric practice particularly calls for weighty consideration and reform.

The Story of Childbirth, from the beginning to the end of its 361 pages, literally teems with factual food for both the lay public and medical profession. A perusal of its pages will not only prove of absorbing interest, but immeasurable value to both.

Cancer Research Classification Blanks: Lip, mouth, tongue, throat; breast; stomach; rectum, colon; uterus. 5c per blank. Published by the Cancer Commission of The Medical Society of the State of Pennsylvania, 230 State St., Harrisburg, Pa.

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MEDICAL SERVICE TO PAUPERS* In Contradistinction to Those on Emergency Relief

EDGAR S. BUYERS, M.D., NORRISTOWN, PA.

On the twenty-seventh day of July, 1933, Secretary Donaldson and the writer attended a meeting of the Governor's Committee for Study of the Compensation Laws of Pennsylvania. The subject under discussion at the time was the free choice of physicians in compensation cases. A heated argument prevailed for and against such action. When neither side had made much progress in convincing the Committee of facts, one lay member arose and said in part, "Why not make a comparative study of cases treated by the physician of choice and the company doctor? The records of the Workmen's Compensation Board in Harrisburg are always open for inspection. If a study could be made and facts presented it would do much in aiding the Committee to arrive at a conclusion." In other words, a governing body wants facts and not merely unsupported opinions and speeches in deciding important matters.

With this experience in mind and the experiences of many of the Councilors while visiting component societies and hearing the many complaints concerning the medical care of indigent people as provided by Poor Boards and County Commissioners, the Trustees of The Medical Society of the State of Pennsylvania decided that a survey of the Poor Laws of Pennsylvania with the various interpretations in administration thereof should be made. This survey was undertaken with the hope that in case changes should become advisable in the Poor Laws at some session of the Pennsylvania Legislature, our State Society would be able to counsel authoritatively.

The Board of Trustees employed Dr. C. D. Koch, formerly, for twenty-five years, a deputy in the State Department of Public Instruction, to make the survey and report his findings, with

comments. Dr. Koch visited almost every county in the State, traveled over 4000 miles, interviewed members of Poor Boards, other county and municipal authorities, superintendents of county homes, physicians attending the indigent, nurses in such work, and representatives of County Medical Societies. He reports many varied experiences, and while not yet entirely correlated, his findings are most interesting.

Dr. Koch reports that he was most cordially received by all the persons he interviewed. Every one aided as far as possible in endeavoring to solve the questions at issue, and at no time was he asked to present his written credentials.

You will note in this paper the chaotic conditions prevailing, due largely to the different interpretations of Pennsylvania's General Poor Relief Act by the various County Poor Boards.

The medical care of the poor is provided for in four different ways in this State, *viz.*:

1. County Commissioners acting as Poor Directors.
2. Poor Boards consisting of three persons elected by the people.
3. Some counties divided into townships and boroughs each having a Poor Board, or "overseers of the poor" (elective).
4. Poor Directors appointed by judges in some districts composed of townships or boroughs.

The necessary funds for Poor Relief are secured by local taxation and distributed by the County Commissioners in the form of appropriations to such Poor Boards.

A "poor person" is defined in the Pennsylvania Law as "one who is unable to maintain himself or those dependent upon him." The law does not specify whether he is of the temporarily unemployed class due to the depression or not; therefore, it would seem that all such might come under this ruling in a liberal interpretation of

* Read before 28th Annual Conference of County Society Secretaries and Editors, Harrisburg, Dec. 12, 1933.

the law. This, however, is not the case. The average Poor Board rules that only the so-called chronic poor are charges upon the county and will have nothing to do with relieving the temporarily unemployed. It is interesting to note that the State law provides for taxation not to exceed 10 mills for Poor Board purposes. One county only takes advantage of this amount while the others assess but 3 or 4 mills. The average cost per day for maintenance of indigent persons in institutions usually known as County Homes varies in different counties from 31 cents to \$1.00 per day per person.

There is almost universal dissatisfaction among members of the medical profession regarding the manner in which physicians are selected, engaged, and paid to attend the indigent ill. In many localities no provision whatever is made by the Poor Directors for medical service to the indigent except for those in County Homes. The indigent one living outside such institution may, however, go to the doctor in such County Home if he desires treatment. This burden, therefore, usually falls on the neighborhood physicians as pure charity work. Here the question might well be asked: Why should the physician attend the indigent free of charge when it is imperative that the county provide for them, and why should any physician thus work for the taxpayers at a reduced fee? The indigent are often our most troublesome patients.

Just about one year ago the Educational Committee of our Board of Trustees prepared and distributed a digest of opinions that should be expressed by County Medical Societies regarding this subject, such societies being "advised to: (a) Ascertain the present cost of medical care, including drugs, of the indigent to the taxpayers of the municipality or county. (b) Strive for recognition by the public of the public's duty to furnish complete and adequate medical care to the indigent, stressing this as a *community* duty, not of the medical profession alone. (c) Request public authorities to coöperate with physicians and dentists for equitable improvements in sickness service to the indigent before discussing any further extension of government controlled sickness service to others."

The attitude of the Poor Authorities toward physicians is, in a few counties, most coöperative; passive, in others; and in still other counties, it is entirely negative. Some authorities assuming that it is the duty of physicians to look after indigent patients free of charge, they are therefore delighted to encourage such false premise whenever possible in order to cut relief expenditures to a minimum.

As evidence that much remains to be accom-

plished toward the realization of this responsibility of the taxpayers for the indigent ill—which responsibility should include an active interest in the quality of medical service rendered the wards of the county or other municipal subdivisions—it might be interesting to quote from a cross section of the reports submitted by Dr. Koch, as follows:

REPORTS FROM COUNTIES

Adams: This county maintains a home in which there are 80 inmates. There is no provision for caring for the indigent sick except in the County Home. The doctors feel that too much charity is expected of them, but do not see how they can help themselves.

Allegheny: There is a County Home in this county, also a hospital for mental diseases. In addition thereto, the Poor Board has under contract some 100 physicians outside of Pittsburgh in various sections of the county at an annual salary of from \$250 to \$400.

Armstrong: Some effort is being made to care for the indigent sick, but lack of money keeps the Poor Board from doing much along this line. Early in the depression, the County Medical Society membership agreed to look after the indigent sick. Thus far there have been no refusals and no patients have been neglected, but it means that the physicians of the county are giving a large service gratuitously.

Blair: In this county, a County Home and Insane Asylum are maintained, the cost per patient in the Home being 33 cents a day. Outside, several physicians are employed at an annual salary of from \$75 to \$100. These physicians under contract plan to finish the year, but will not renew their contracts. There is strong opposition to any but a fee basis plan.

Bradford: Medical care is here provided for the indigent sick on a fee basis to physicians. In 1929 it cost this county \$2800 to take care of these cases, while in 1933 it is expected to cost approximately \$10,000. Many cases of illness are depending on the hospitals for medical care. One physician reports that many obstetric cases are now becoming hospital ward cases, and many of his patients seek free services in hospitals. Here is a serious condition for both hospitals and physicians. Our hospitals would not be as full as they are, nor so extensively in debt, were more of the indigent maintained in private homes and there treated by neighborhood physicians, the county paying for services.

Bucks: There is no provision for medical care at public expense outside the County Home and for the poor children, who are maintained and cared for by the Aid Society. The physicians

are doing much charity work, and are much dissatisfied with the present system.

Butler: Itemized statements showing services rendered by physicians are, by agreement, reduced to one-half when paid. Hospital statements also are paid on this basis. It has cost taxpayers of the county \$1400 (including \$150 for the County Home physician) a month since the beginning of 1932, when this plan was agreed upon.

Cambria: A County Home is maintained. In addition thereto 15 physicians have been assigned to various sections of the county at a salary of \$150 per year per doctor. The Board also pays for any drugs prescribed, in connection therewith. Many physicians feel that physicians under contract, for various reasons, fail in care to all those who need medical attention. This is a common criticism in many counties, and is a problem to be solved by our Medical Societies.

Cameron: One point in particular is to be commented upon in this county. Each township has its own Poor Board. There is no County Home, but some of the indigent are cared for in the adjoining Potter County Home and some in their own homes. It costs \$25 per month per patient in the Potter County Home, and only \$15 in the patient's home. This is, one may readily see, a decided argument for home care and the employment of neighborhood physicians. The doctors in the county are carrying a heavy burden in caring for those unable to pay.

Carbon: The doctors are carrying the burden as charity work. Many patients are being cared for by the State Hospital at Carbondale. In fact, 90 per cent of obstetric cases are now ward patients. This does not help the doctor, as his service at the hospital is free.

In Lansford, thousands of dollars are given out by the Emergency Relief Board to persons who refuse to work at any community improvement job. The doctors are struggling to keep their homes, and pay their taxes.

Clarion: The doctors report that the commissioners are unable to pay for medical services because they have no money. The four mills tax levied produces insufficient revenue to pay the physicians. As a result, these physicians are carrying on the work as charity. Nothing, they say, has been done to relieve the burden of the doctors.

Clearfield: Several physicians in various parts of the county have been appointed by the Poor Authorities to care for the indigent who need medical attention. The salary per year is usually \$100. During the past year, some of the physicians refused to sign contracts and as a result, the indigent in these sections depend entirely

upon the charity of physicians. The contract system in this county has broken down during the economic depression. There is no adequate medical service for the poor.

Crawford: The doctors interviewed here report no system for medical care to the indigent. A few doctors who are especially favored get calls, and are paid for their services. The charge is made in this case that the politicians hold sway, to the detriment of efficiency.

Elk: There is no definite plan for medical care except in the County Home. Physicians are carrying the burden as charity. The Secretary comments: "All the doctors are doing more charity work than they can afford. The doctor is the forgotten man. I do hope that some plan can be arranged so the physicians will receive some remuneration for such services."

I might add here that this is typical of many counties; the physicians interested expressed the thought that they were glad the State Society has undertaken the survey, and hoped that much good would be derived therefrom.

Erie: We all know of the Erie Plan. Briefly, it is this: Erie County has, for more than a year, been working with a method agreed upon by the County Medical Society and those charged with the administration of relief to the poor. It consists of a dispensary and clinic with two or more physicians in charge. The organization endeavored to care for the indigent sick through various Relief Agencies in Erie County. It was not limited to the unemployed, but included the indigent as well.

A layman interviewed said that 80 per cent of the hospital patients are now charity patients. In 1930 there were 130 charity obstetric cases, and in the first 10 months of 1933 there were already more than 600.

Franklin: The physicians report that there is no provision for medical care of indigent patients in the townships, and that the County Poor Directors will pay no bills for medical care unless the persons in need of such care have first been investigated by the directors and approved by them. Affidavits are required from attending physicians. One physician reported that he had not submitted a bill in 10 years, because the Poor Board always insisted on paying but one-half of the amount specified for services rendered.

The members of the Poor Board and the physicians interviewed hold widely different opinions regarding the efficiency of the county unit plan as it works in Franklin County. The Poor Board appears to be well satisfied with the results, at least so long as the physicians are willing to carry the burden. The Board apparently has

little sympathy with the proposal that adequate medical service to the indigent is just as much the financial responsibility of the community as is food, shelter, clothing, *etc.* The physicians, on the other hand, feel that this load is too heavy, and do not think they should carry such work and expense without a fair return.

Greene: This county maintains a County Home and employs 2 physicians to care for the indigent sick at a salary of \$300 each. The doctors of the county made an effort to have the County Poor Directors allow the physicians to care for the poor in their localities at lower than standard fees. This proposal, however, was turned down by the Board. The 2 doctors above mentioned, who are employed by contract, had agreed to resign but later reconsidered. The entire profession in this county are really doing the work without pay, as a charity service. The cry of the Poor Board is, "No money to pay for medicine and service to the poor."

Huntingdon: In the County Home there are 60 inmates, costing 31 cents daily per person. A physician is employed at a salary of \$110 per year to care for them. In certain sections of the county, other physicians are appointed by the Poor Board to treat all the poor. One doctor showed a list of more than 40 patients to be treated by him for the sum of \$75 annually. He lamented the fact that the burden was great.

Lancaster: One physician reports "A number of the members of the County Medical Society agreed, verbally, to do their share of free work. No contracts have been made. Medical care has always been secured from the physicians on a voluntary basis, but the demands in the past four years have increased so greatly that many complications have developed. The demands are far greater than can be met without funds and, therefore, neglect results."

Another physician reports that none of the political subdivisions pay for medical care. There is no county or city physician employed, but the medical profession responds to all calls and usually furnishes medicine without compensation. The medical men have been standing up well, and cooperating with all charities and with the demands of civic organizations.

Lebanon: Outside of the County Home, upon recommendation of the county nurses, the service of a physician is permitted for which a flat fee of \$1.00 is paid by the Poor Directors. This plan has been in operation for 2 years.

Lehigh: The county operates under the County System with 3 members constituting the Poor Board, each of whom receives a salary of \$1500 per year. A County Home, wherein are maintained 325 inmates, is situated a few miles west

of Allentown. This number has increased from 255 in 1929 to 326 in 1932. If man and wife happen to be in the Home at the same time, they may live together. In this Home there is one trained nurse and one practical nurse. Two physicians who serve on alternate months and are subject to call are employed by the Poor Board at a salary of \$40 per month. A poor tax of 3 mills produces \$490,000 per year; although some \$105,000 in taxes for 1932 are still uncollected.

For some years Lehigh County employed 18 physicians to render medical care to the indigent sick in certain sections of the county. This plan, until Oct. 1, 1933, cost for the care of the unemployed and paupers, \$350 per month. Now paupers only are cared for.

Under an agreement between the Lehigh County Medical Society and the Poor Board, a fee for medical care has been fixed at \$2.00 for calls to the residence of the "poor" person seeking and needing medical care, and for office calls \$1.00.

One physician thinks it will not cost the county as much on the new basis as it did under the Contract Plan. He considers the new agreement quite satisfactory, since it maintains the dignity of the profession and at the same time allows the patient to call the physician of his choice. The County Medical Society, under this plan, agrees to supervise statements rendered to the Poor Board for payment of medical services thus rendered. The Lehigh County Medical Society is strongly opposed to the contract system.

Luzerne: A short time ago the County Medical Society, through its Public Relations Committee, passed resolutions condemning the appointment of physicians by contract as being unethical in practice, and requested all doctors under contract to resign. It is expected that all will do this. Accordingly, a plan has been adopted by the County Medical Society whereby all "poor" patients will be permitted to choose their physician, and the Poor Board in return will pay such physician for home calls, \$2; office calls \$1.00; and for obstetric cases \$25 each. The Medical Society contends that the first consideration is the welfare of the patient and maintenance of the family; private physician relationship is the first step toward this achievement.

Monroe: The County Commissioners, acting as the Poor Board, maintain a county home for the poor in which there are about 50 inmates. The doctors report that there is no system throughout the county for taking care of the indigent sick. The obstetric cases are handled in the hospitals. This does not help the physicians who are carrying on the other work as charity.

The physicians feel the burden, and are hoping that the State will work out a plan which will be satisfactory to all concerned—patients, physicians, and taxpayers. The physicians are entirely out of sympathy with the contract plan. One physician, 85 years of age, is employed to care for the poor sick of several districts. He has practiced medicine for 60 years and law for 59 years—a rather unusual man.

Perry: For medical care of the inmates of the County Home, three Poor Directors each receive \$300 per year, and one physician receives \$100 per year. There is a noticeable increase in the number of indigent persons. One physician reports a fee of \$10 as agreed upon for obstetric cases, but states that the Poor Directors want to reduce it to \$7.00. He also reports doing \$1000 worth of work last year for which he knows the patients will never pay. He has been in the county for 26 years, and remembers well the time when there were 27 physicians practicing there. Only 3 of the original number remain. At the present time, there are but 14 doctors in the county.

Schuylkill: An interview with a doctor under contract in this county is typical. He related that he had one borough and two adjoining townships under his care, and that he was paid \$25 every 3 months for this work. I asked him how he knew the patients were poor and unable to pay. In reply, he produced a list "furnished by the Poor Board" upon which we counted 52 names. I said, "Surely you earn more than \$100 a year in caring for these 52 old persons." He replied, "I don't take care of all of them. Many of them call on other physicians." He does not take care of the entire list given him, many of whom are furnished with groceries by the Poor Board; some live with friends or relatives, and a few keep a home with the help of the Poor Board.

Snyder: This county for many years was under the County Commissioners until 1930, when the county adopted the separate district Poor Board Plan. It is reported that one township under the commissioner plan permitted local doctors to treat poor patients and the commissioners paid the bills. In one case, with heavy charges, the doctor sued the commissioners for the full amount and won the case. Several districts became alarmed at this doctor's action and it is believed that this case had much to do with bringing the county to the district system. Under this system, the attempts to provide medical care, if any, are meager. One doctor reports that the Poor Boards in some districts are hostile towards paying medical bills rendered and in some cases absolutely refuse payment.

Susquehanna: A Poor Overseer, when interviewed, said that no doctor is paid for his services unless the call is authorized before the visit is made. He believes that the total poor cost is less than if operated by County Board and County Home. Tax rate is three mills. Physicians are paid on a fee basis. Another Poor Overseer believes that this partial aid in the individual's home maintains his self-respect to a greater extent than as though placed on complete relief in the almshouse, and it is less expensive in the end. Occasionally a nurse has been employed.

Washington: A County Home with 480 inmates is maintained at a cost of 37 cents per person per day, and a Children's Home with 145 inmates at a cost of 55 cents per day per person. A physician in charge of the Home receives \$75 per month, and the physician in charge of the Children's unit is paid \$50 per month. The Poor Board also cares for 500 persons in homes who were thrown back on the county by the Emergency Relief Board.

Wayne: An overseer stated that the Poor District had coöperated with the Welfare Workers; that the Poor District pays for all medical services to the indigent poor, but that all doctors contribute much service to the Emergency Relief Group.

Wyoming: This county has 14 physicians, 13 of whom are members of the County Medical Society. The Poor Board agrees to employ only members of the County Medical Society, under the following:

Executive Committee of 3 members: This committee to assign the poor patients so that services will cost the county the least possible. Members of the Medical Society will use the utmost care to keep medical cost low.

Grievance Committee of 1 layman, 2 doctors, and 2 commissioners. Layman to be chosen by commissioners and doctors. They receive no remuneration. Their decision is final on all questions as to service and fees.

Poor Board of 3 commissioners and clerks.

Class A: Any person getting poor orders will have the right of free medical service.

Class B: Patients not on the poor list, but unable to pay for medical care and buy food at the same time, will be referred to the Grievance Committee for decision. Fee schedule shall be the County Medical Society regular schedule:

FEE SCHEDULE: Office Calls—\$1.00 and medicine cost. House Calls—\$2.00 and 50 cents per mile. Confinement—\$20.00 and mileage.

In conclusion, what is the answer? I believe this question will be more easily solved because of the *Rules and Regulations* governing medical

service recently adopted by the Pennsylvania Emergency Relief Board. As you know, physicians attending those on unemployment relief receive a fair fee even though it be less than the usual fee.

There is marked coöperation between the Emergency Relief Boards and the Advisory Committees of County Medical Societies regarding fees, manner of selecting physicians, extent of services, *etc.*

Demand for quality in service will eventually require that Poor Boards dispense medical service in a similar manner, and if so it will result in economy and a great advance in care for the in-

digent. All contracts by physicians on the yearly or monthly basis for medical service to the "poor" outside of almshouses should be discontinued, and a reasonable schedule of fees should be agreed upon by a committee of the County Medical Societies and Poor Boards. Free choice of physicians should be agreed upon and any dispute concerning lack of professional attention or question as to fees should be investigated and controlled by the County Medical Society Committee. In other words, County Medical Societies should sponsor the service of physicians undertaking this and all such public or semi-public professional work.

ACUTE EMPYEMA*

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I am tempted to apologize for again speaking upon the subject of acute empyema; but the chairman of your program committee requested me to discuss it. He probably was aware that there remains in the minds of many practitioners and surgeons a good deal of confusion regarding the treatment of this condition; and felt that a further discussion of the subject might serve to clarify it. The reasons for this confusion are not far to seek. The literature upon the subject has become enormous. Especially since the war a host of authors has published new methods of treatment, new modifications of old methods, new details in technic, new apparatus and gadgets of all sorts, and often has advocated them as being responsible for the improved results in the treatment of this disease. On the other hand, others, after eagerly adopting the newer methods and finding they yielded no better results than before, have abandoned them and gone back to methods well standardized before the war. It becomes clear to one with sufficient background and experience that there has been a tendency to disregard the varying pathology of the condition and the fundamental principles in its treatment in favor of relatively unimportant methods and details in treatment; and to ascribe good or bad results to them. I propose to point out the essentials and the nonessentials in the management of empyema; to evaluate the methods which have been advocated, and to indicate the contributions to the subject which have been made. The basis for my remarks is furnished by a study of 3 groups of cases: A group of 425 cases treated before the war; a fairly large group of cases treated during the war; and a

group of more than 200 cases treated since the war. These 3 groups of cases illustrate periods in the development of the treatment of the condition; and by the comparison of the methods used and the results achieved we may form some opinion of the progress that has been made. Such a comparison, however, is quite inadequate without a study of the pathology of the condition as it affects mortality and I shall, therefore, take up this matter first.

PATHOLOGY

A conception of empyema which is so often missed is that it is not (or only rarely) a disease entity but is a single complication of an antecedent respiratory infection or one of several serious pathologic conditions, associated with a respiratory infection. Its frequency, its seriousness, and its mortality are not constant but are variable and largely dependent on the type and the virulence of the respiratory infection. Over a period of years, the mortality curve in empyema follows the mortality curve in pneumonia in the same locality; the mortality in empyema varies from year to year in the same locality and may vary in the same year in different localities, regardless of the methods used in its treatment. It becomes premature, therefore, to evaluate methods of treatment on the basis of a small series of cases, or a series treated in favorable or unfavorable years. To do so is to disregard the most important factor in the mortality—the variability in the virulence of the respiratory infection.

Empyema, the result of respiratory infections, occurs roughly in two forms, as a simple intrapleural abscess in an individual who has recov-

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ered from pneumonia and as an intrapleural infection in association with a variety of pathologic conditions including unilateral or bilateral pneumonia, pulmonary abscess, mediastinitis, pericarditis, meningitis, peritonitis, and septicemia. The former (simple empyema) is characteristically seen following pneumococcus lobar pneumonia; the latter following the virulent streptococcic respiratory infection called influenza. The two conditions are radically different from the standpoints of their bacteriology, pathology, clinical manifestations, and mortality. The simple empyema is an intrapleural abscess of varying size and location, the outer wall of which is formed by the bony thorax, the inner wall by the partly compressed lung, the mediastinum, or the diaphragm. The lining of the abscess, the visceral and parietal pleuræ, shows varying grades of inflammation and thickening depending upon the type and duration of the infection. The contents of the abscess consist of a thick, purulent exudate containing large amounts of fibrin which undoubtedly contribute to the stabilization of the mediastinum; and bacteriologically yield only or predominantly the various strains of pneumococci. The symptoms are usually comparatively mild and follow the previous and more urgent symptoms of pneumonia; and consist of a septic temperature, some cough, a variable amount of pain, dyspnea if the accumulation is large, loss of weight, and anemia.

Contrast with the simple form of empyema the second, which is usually associated with the virulent streptococcic respiratory infection. The empyema appears, not after the subsidence of the pneumonia, but coincidentally with it. The pneumonic process itself is often different being of the lobular form, often bilateral, and of itself more fatal. The empyema manifests itself as an intense inflammation of the pleural surfaces associated, not with a thick purulent exudate, rich in fibrin, but with a thin watery exudate containing streptococci. Not only is there this difference but more important, the empyema often is not the sole condition but is associated with one or several inflammatory processes including pulmonary abscess, mediastinitis, pericarditis, meningitis, peritonitis, and septicemia. The pathologic manifestations are those of an overwhelming infection involving the serous surfaces; not those, as in simple empyema, of simple abscess formation. The symptoms correspond with the severity of the disease; indeed seem so out of proportion to those we expect in empyema as to suggest the true nature of the condition.

I have purposely strongly contrasted these two forms of a condition which we include under the term empyema—the one commonly seen following pneumococcus lobar pneumonia, the other seen following influenza; but I wish to emphasize that there is not always this striking dissimilarity. The postpneumonic empyema may be associated with the grave conditions seen in the influenzal empyemas; again the postinfluenzal empyemas may take the form of the simple postpneumonic empyemas. It is a question of the virulence of the infecting organism. The more virulent the pneumococcic infection, the more nearly does it produce the pathologic manifestations of the virulent streptococcic infection; the more mild the streptococcic infection the more nearly does it produce the simple empyema as it occurs following pneumonia.

It would be expected from the pathology of the two forms of empyema described that their mortality would vary greatly regardless of the form of treatment employed. My very carefully studied cases extend over a period of more than 35 years during which different methods of treatment have been used. If a curve of the mortality from pneumonia is compared with the curve of the mortality from empyema treated by the best known methods, the two are found to follow each other closely notwithstanding the method of treatment; in other words, a virulent form of respiratory infection with a high mortality is associated with a virulent form of empyema with a high mortality. When a year by year analysis of these curves is made it is found that in the years of a low pneumonia mortality rate, the empyema has been of the simple uncomplicated form described above; in the years of a high pneumonia mortality rate, the empyema has been associated with the serious pathologic conditions (bronchopneumonia, mediastinitis, pericarditis, *etc.*) enumerated in the second form described and with a high mortality rate. Further information is obtained if one studies the results of the treatment of these two forms of empyema over a period of years by different methods. In the simple form of empyema occurring in patients in whom at the time of operation no other lesions were demonstrable by physical, roentgen-ray, or necropsy examination, the mortality, in the group of cases treated before the war (Baltimore series) by primary rib resection and open drainage was less than 6 per cent; in certain groups of cases (*i. e.*, 60 cases between 5 and 10 years of age) was 0 per cent. In 68 similar cases treated since the war (Cincinnati series) by closed aspiration drainage the mortality was 0. In 76 similar cases treated since the war (Graham's series, St.

Louis) by primary aspiration followed by rib resection and open drainage, the mortality was 0. It is clear then that the mortality in the simple empyema, properly treated by any of the best methods, has been low (practically 0) over a long period of years and since it has been low, has scarcely been affected by the so-called newer methods of treatment. The mortality story in the second or complicated form of empyema associated so often with influenza is entirely different. In 106 cases treated before the war (Baltimore series) by rib resection and open drainage, the mortality was 48.1 per cent; in cases treated in the early stages of the influenza epidemic during the war, as high as 60 per cent to 70 per cent; in 90 cases treated since the war (Cincinnati series) by closed aspiration drainage, 38.8 per cent. The mortality has varied from year to year regardless of the method employed. In the Cincinnati series, for example, in which closed aspiration drainage was the only method used the mortality in 1922 was 0; in 1923, 7.7 per cent; in 1924 and 1925, 14.3 per cent; in 1926, 28.6 per cent; in 1927, 53.3 per cent; in 1928, 39 per cent; in 1929, 9 per cent; and in 1930, 10 per cent. In the Baltimore series in which rib resection and open drainage was the method of treatment the mortality also greatly varied. If this varying mortality is analyzed from the points of view of the bacteriology of the infection and the pathology of the condition at the time of operation as determined by physical, roentgen-ray, and necropsy examination, it is found that the curve of incidence of the streptococcus infection and the curve of incidence of multiple pathologic conditions as described in the second form of empyema closely parallel the mortality curve. It is inconceivable that a good method, meeting the requirement that it does not produce an open pneumothorax, and used by the same individual, could in any large way be responsible for a mortality which in one year is 0, in another more than 50 per cent; and we must look to other causes than methods to explain the varying mortality in empyema.

The factors concerned in the mortality in empyema have been variously enumerated and emphasized and include the kind and virulence of the infecting organisms, the pathology of the condition, the method of treatment and the time of its application, the form of postoperative treatment and the general factors of age, sex, and so forth. Surgeons naturally have been concerned with the methods of treatment of empyema and have been prone to emphasize their importance in the mortality of empyema. An example chosen at random from many is the report in 1928 of 2 authors who found that in

infants treated by closed thoracotomy there was a mortality of 50 per cent; but if treated by open drainage there was a mortality of only 29 per cent. This is taken as an indication of the superiority of open drainage in infants. I have found in infants under 2 years of age a mortality of 16 per cent with closed drainage and a mortality of 40 per cent with open drainage (Cincinnati series), the reverse of the above findings.

When I analyze the mortality with reference to the kind of infecting organisms concerned in the empyema, it appears that the mortality curve over a period of years closely parallels the curve of incidence of the streptococcus infection. Assuming that the virulence of the infection is indicated by the serious pathologic conditions which it produces, then I find that the mortality curve over a period of years again closely parallels the curve of incidence of serious pathologic conditions in addition to empyema. Necropsy examinations which have been obtained in almost 100 per cent of the patients who have died following operation have shown without exception the presence of one or several pathologic conditions such as bronchopneumonia, pulmonary abscess, mediastinitis, pericarditis, meningitis, peritonitis, and septicemia. Analyzing the mortality over a period of years with reference to the operative and postoperative methods of treatment used, I fail to find any constant relationship.

Analyzing the Baltimore and Cincinnati series as a whole, I find that with primary rib resection and open drainage the Baltimore series shows a total mortality of 16.5 per cent; that with closed aspiration drainage the Cincinnati series shows a total mortality of 22.7 per cent.

In analyzing the mortality of each series with reference to the method used, I find that with a constant method of treatment the mortality varies tremendously from year to year; indeed may be zero in one year and 50 per cent in another. If the empyemas of both Baltimore and Cincinnati series are divided into the two forms described and the mortality of each form is analyzed according to the methods of treatment used, the mortality of the simple form of empyema is 6 per cent following primary rib resection and open drainage and 0 per cent following closed aspiration drainage; the mortality of the complicated form of empyema is consistently high following either primary rib resection and open drainage or closed aspiration drainage, being 48.1 per cent in the former and 38.8 per cent in the latter. No matter how eagerly I attempt to magnify the importance of methods I cannot find from a study of my material that they have,

over a period of the past 35 years, resulted in a reduction in the immediate mortality in the simple form of empyema of more than 3 to 6 per cent; in the complicated form of empyema of more than 10 per cent. No matter how the mortality in empyema is analyzed I find that the greatest single cause of this mortality is not the empyema nor its methods of treatment but the serious conditions enumerated, which accompany empyema. These are the result of the respiratory infection and vary in number and seriousness according to the kind and virulence of the respiratory infection. If we are to continue to include in our surgical records under the heading "empyema" a series of pathologic conditions of which empyema is by far the most benign, we shall continue to see a varying and generally high mortality in spite of methods in the treatment of empyema. Not until the problem is attacked at its source—the respiratory infection—can we expect a greatly lowered mortality in empyema.

TREATMENT

It is not to be assumed from this preamble that I do not consider the surgical treatment of empyema as important nor that I belittle the methods of surgical treatment which have been employed. I have merely been at pains to point out that in the appraisal of results by different methods, due consideration be given the pathologic condition or conditions toward which these methods are directed. Too much emphasis has been laid upon methods in the treatment of empyema, too little upon the principles which underlie its intelligent treatment. The important considerations to be borne in mind are these: (1) Physiologically the intrathoracic pressure relationships are such that the wide opening of one thoracic cavity leads to the partial collapse of the contained lung and, unless the mediastinum is stabilized by inflammatory induration, adhesions, or some other cause, leads to the partial collapse of the opposite lung. The result is a diminution in the vital capacity which may provoke marked cardio-respiratory disturbances or even may be incompatible with life. It is probably true that the mediastina of different individuals vary in their mobility or elasticity so as to withstand or not these changed intrathoracic pressure relationships; but we have no means at present of determining beforehand which individuals are susceptible to these changes and which are not. (2) In the treatment of empyema this important principle should never be disregarded. Clinical experience has taught us that in simple postpneumonic empyema the mediastinum has become so stabilized in the large majority of cases that the immediate open-

ing of one pleural cavity is not accompanied by serious consequences; it has also taught us that in the streptococcic empyema the mediastinum has not become so stabilized that immediate opening of one pleural cavity is or may be accompanied by serious consequences. Clinical experience has taught us further that the presence of pneumonia in one or both lungs, or pulmonary abscess or mediastinitis, *etc.*, of themselves lower the vital capacity and, therefore, when present in association with empyema increase the hazards of immediately opening one pleural cavity. (3) Methods in the treatment of empyema are of value or not, only in so far as they take into account these two important considerations and at the same time maintain adequate drainage. It is possible that any one of several methods may conform to the above requirements and, if they do, should yield equally good results. For the sake of convenience, I will discuss separately the treatment of the two forms of empyema described in the earlier part of this paper.

(a) *Simple Empyema*.—In the intelligent treatment of empyema, whether of the simple or complicated form, the first requisite is a comprehensive study of the condition. Empyema rarely is so urgent as to require treatment, other than aspiration, before such a study can be made. It should include the attempt to determine the nature of the respiratory infection, the presence and extent of the pneumonia which may complicate it, the time of appearance of the empyema with respect to the onset of the disease, the type of infecting organism concerned in the empyema, and the coincident presence of conditions other than empyema including unilateral or bilateral pneumonia, contralateral empyema, pulmonary abscess, mediastinitis, pericarditis, peritonitis, meningitis, and septicemia. The determination of all these things is obviously not easy and sometimes quite impossible particularly in infants and young children, but usually sufficient information may be obtained to divide the cases into the postpneumonic pneumococcic empyemas and the postinfluenzal streptococcic empyemas. Each of these may be divided into simple empyemas and empyemas associated with other serious pathologic conditions; although there will always be a smaller or larger group of doubtful cases.

The methods which have been employed in the treatment of *simple empyema* are: (1) Repeated aspiration; (2) repeated aspiration followed by rib resection and open drainage; (3) closed aspiration drainage; and (4) immediate rib resection and open drainage. The last was the recognized standard treatment before the war,

the three former were developed during or since the war. Referring to the important considerations in the treatment of empyema just discussed, the first method meets the requirement that it does not produce an open pneumothorax but may fail to meet the requirement that it produce adequate drainage. If it does so fail, a subsequent rib resection becomes necessary. The second method meets all the requirements; as does the third, but with probably greater attention to details in the postoperative course. The fourth has the disadvantage that it produces an open pneumothorax in the early stages of empyema and may be followed by severe cardio-respiratory disturbances and even death. This remains a serious objection to the method but practically we know from experience that the large majority of simple empyemas are post-pneumonic pneumococcic empyemas in which the pneumonic process has disappeared and the mediastinum has been stabilized; circumstances which eliminate the dangers of open pneumothorax. This method is, therefore, fairly safe but it should not be used as a routine procedure. In simple empyemas caused by the streptococcus in which stabilization of the mediastinum is in question and in pneumococcus empyema in which pneumonia or other complications are suspected it is safer in my opinion to use the second or third methods.

Practically, the results of repeated aspiration as a sole method in the treatment of empyema cannot yet be definitely stated. Stone found that 11.3 per cent of his cases were cured; Graham that 10 to 15 per cent (children) were cured; and Ochsner that 33.3 per cent were cured. McEnery and Brennemann report that in 33 children 91 per cent recovered and 9 per cent died. Danna, using aspiration with air replacement in 35 cases, reports that 33 patients were cured and 2 died. The results obtained with the other 3 methods are more definitely established and it can be shown that with each the mortality is low. With aspiration followed by rib resection and open drainage, Evarts Graham had no mortality in 76 cases of simple empyema; with closed aspiration drainage, I had no mortality in 68 cases; and with primary rib resection and open drainage a group of surgeons (Baltimore series) had a total mortality of 6 per cent, an occasional periodic mortality (60 cases between age 5 and 10 years) of 0. In simple empyema, therefore, we need not quarrel over methods nor necessarily confine ourselves to one method. There is no question of greatly reducing the mortality by the adoption of a given method; the question rather is of averting an occasional and rare death caused by open pneu-

mothorax in the presence of an unsuspected pneumonia or mobile mediastinum.

(b) *Empyema Associated with Other Serious Pathologic Conditions.*—The problem of the treatment of this form of empyema is somewhat different from that of simple empyema. It has been pointed out that the serious pathologic conditions enumerated are all manifestations of a severe respiratory infection and not complications of empyema; that they occur most frequently in the streptococcic infections but may occur in the pneumococcic infections; and that their incidence varies in different localities and in the same locality from year to year. Under these circumstances the empyema becomes the constant condition, the others are variable conditions; and it is clear that the mortality in any given period or series of cases will depend in large part upon the number and kind of these variable conditions. From these considerations the treatment of this form of empyema resolves itself into an attack upon the least dangerous condition (empyema) with the purpose of lessening the load of infection which the individual is carrying; for of itself it can have little effect upon the pneumonia, pericarditis, or other conditions from which the patient is suffering. The method of treatment should, therefore, be one which lessens this load without introducing conditions which immediately may be more serious to the patient than the empyema. It is evident that here aspiration with late thoracotomy or closed aspiration drainage meets the requirements better than immediate rib resection with open drainage; for they avoid an open pneumothorax in patients in whom the vital capacity is already dangerously low. Which of the two methods used is of no serious importance; both observe the important principle established by Evarts Graham during the war.

POSTOPERATIVE TREATMENT AND HEALING OF EMPYEMA

The immediate saving of life is the first and important step in the treatment of empyema; but this should be followed by efforts to induce rapid healing of the condition. In the postoperative treatment of empyema we should be concerned with the prevention of chronic empyema—with all the disabilities, deformities, and chronic invalidism which this term implies—and of the lesser sequelæ as retraction of the thorax and elevation and fixation of the diaphragm which lead to functional disability of the lung. It is recognized by all interested in the subject that the continuance of the intrapleural infection, the result of inadequate drainage, is the most common and important cause of chronic empy-

ema; therefore, the establishment and maintenance of adequate drainage is the first and most important step in the postoperative treatment. The older and some of the more recent authors have maintained that a properly placed rib resection provides the best drainage; others find, and I among them, that adequate drainage may be maintained with closed aspiration drainage. If one reviews the history of the treatment of empyema one finds that in the period before the war the incidence of chronic empyema following rib resection was about 20 per cent; but owing to the present better management of the disease this incidence in some clinics has dropped to practically zero. Similarly my records over a period of 12 years show that with closed aspiration drainage chronic empyema has been completely eliminated. Chronic empyema can be and has been prevented either by the methods of aspiration and late thoracotomy, by closed aspiration drainage, or by immediate rib resection and drainage; it is equally certain that chronic empyema may follow the improper use of any of them.

Aside from adequate drainage the use of solutions of various sorts to irrigate empyemic cavities and methods of irrigation have been of continued interest in the postoperative treatment of empyema and of themselves have given rise to a voluminous literature. In the treatment of empyema before the war (Baltimore series) irrigations with salt, weak bichloride, weak permanganate, weak carbolic acid, and weak iodine solutions were periodically used and abandoned. In the Baltimore series I have studied the effects of these irrigating solutions from the points of view of the incidence of chronicity and time of healing of empyemic cavities and have been unable to find that they influenced either. For some time before the war the use of irrigations in the postoperative treatment of empyema practically had been abandoned. With the war came Dakin's solution as a more effective antiseptic solution. Since the war a great many new solutions have from time to time appeared (among others ethylhydrocupreine or optochin, bile salts, *etc.*, *etc.*) and have had their supporters. Methods of irrigation such as tidal, continuous, interrupted, and so forth, have been published and some virtue found in each of them.

It is difficult to appraise the value of these different chemical solutions and the methods used in applying them. Just as in the appraisal of the results of the immediate surgical treatment of empyema we must consider the nature of the infection, so in the results of postoperative methods must we consider it. It has been my experience, as it must have been yours, to see a mild

pneumococcus empyema completely heal in 10 to 15 days following a properly placed rib resection and without irrigations or postoperative treatment of any sort; again to see a more virulent pneumococcus or streptococcus empyema require 60 days to heal in spite of adequate drainage, irrigations, pulmonary gymnastics, and general measures of all sorts to aid the convalescence of the patient. In an attempt to get at the root of the matter, I have made an effort to determine the factors concerned in the healing of empyema. Briefly stated, in a series of cases of acute empyema treated by closed aspiration drainage and irrigated every two hours with Dakin's solution, accurate daily measurements of the volume of the empyemic cavity if charted in the form of a curve produces a curve identical with that established by Carrel and DuNoüy in healing wounds; and sufficiently accurately so that the formula established by DuNoüy determining the rate of healing may be applied to empyemic cavities. If my observations are confirmed—and they should be before being finally accepted—this means that empyema heals in the same way as do other superficial and deep wounds and that in the postoperative treatment of empyema the same principles should apply as in the treatment of wounds in general. It becomes evident, then, that the question of the kind and method of irrigation is of serious importance only in so far as it has to do with the principles of wound healing. Whether a surgeon depends upon adequate drainage alone or combines this with various kinds and methods of irrigation is of little moment so long as he achieves and improves what experience has taught us can be accomplished—namely, the complete healing of empyema in an average period of 40 days with a minimum of functional disability; which implies the elimination of chronic empyema. I continue to use, as I use in infected wounds in general, the Carrel-Dakin method; for through its use my best results have been obtained.

The only additional matter which needs to be discussed in the postoperative treatment of empyema is that of pulmonary gymnastics as illustrated by the Wolf bottle. Throughout the years it has been recommended as an aid in the postoperative treatment of empyema and almost universally on the basis that the increase in intrapulmonic pressure so produced expands the partially collapsed lung and so obliterates the empyemic cavity. Though in favor of pulmonary gymnastics, I doubt the commonly accepted reason for their value for the following reasons: (1) The fact is well known that with adequate drainage through a thoracic opening larger than the diameter of the trachea, the partially col-

lapsed lung will return to the thoracic wall without the use of any method of increasing the intrapulmonic pressure. (2) The lung will not return to the thoracic wall either of itself or with the aid of the Wolf bottle unless or until the pleural infection is overcome. This is the reason for the development of chronic empyema. (3) The observation quoted, showing that in healing empyema follows the same laws as other superficial or deep wounds, eliminates intrapulmonic pressure as an important factor in the healing process. It suggests that in the obliteration of an empyemic cavity the lung is not forced out from within but is pulled out by the contracting granulation tissue at the junction of the visceral and parietal pleurae. Pulmonary gymnastics find their greater usefulness in preventing the retraction of the thorax and maintaining the mobility of the diaphragm both of which tend to lessen the functional disability of the lung.

SUMMARY

The foregoing statements may be summarized best by pointing out the essentials and nonessentials in the management of empyema; to evaluate the methods which have been advocated in its treatment and to indicate the contributions to the subject which have been made. The important or essential matters in the management of empyema are: (1) A painstaking investigation of the patient so as to determine, before operative treatment is undertaken, the nature of the infection and all the pathologic conditions, aside from empyema, which may be present. Such an investigation is of the utmost importance from the standpoints of prognosis and treatment. (2) The recognition of the physiologic and pathologic effects of open pneumothorax as determined by Graham and Bell. (3) The selection of an operative procedure in any given case which will prevent the serious effects of open pneumothorax. (4) The establishment and maintenance of adequate drainage. These are the basic principles in the management of empyema. Whatever in the nature of equipment, apparatus, details in technic, and so forth, may be added which can help to realize these basic principles may be left to the whim of the individual surgeon.

The value of methods in the treatment of empyema lies in their success in avoiding an open pneumothorax in those cases which are prone to suffer the evil effects of open pneumothorax; and in establishing and maintaining adequate drainage. In simple empyema the methods of aspiration and late thoracotomy, closed aspiration drainage and immediate rib resection and open drainage are all satisfactory

and associated with a very low mortality. We are concerned here not with a great reduction of the mortality of any given method but with the saving of an occasional life. From this point of view the first two methods mentioned are better than the third. Adequate drainage may be secured by any of the three methods; but the success of any one of them depends upon the surgeon using it.

The contributions to the treatment of acute empyema over the last 35 to 40 years are disclosed when one surveys a large series of cases observed and treated over this period. One of the reasons for the present confusion and dissatisfaction in the treatment of empyema lies in the realization that the general mortality in acute empyema during the past 10 years is, generally speaking, as high or higher than the general mortality in empyema during the 10 years preceding the war and in spite of a better understanding of the condition and the adoption of methods to meet this better understanding. This apparent lack of progress in the treatment of empyema is not due to our failure to appreciate the fundamental principles in the treatment of empyema nor to adopt methods in conformity with these principles; but are due to the greater virulence of the respiratory infections which have prevailed. A close analysis of my material shows that in reality we have, largely through the recognition of the dangers of open pneumothorax, reduced the immediate mortality in simple empyema from 3 to 6 per cent; and in the complicated forms of empyema by 10 per cent. Not only have we reduced the primary mortality but we have, through a greater understanding of the problems involved, so improved our postoperative treatment that we have reduced the convalescence to an average period of 40 days and have restored our patients anatomically and functionally almost to the normal. Not the least of our contributions is the practically total elimination of chronic empyema as a surgical disease.

New York Hospital.

ABSTRACT OF DISCUSSION

SAMUEL J. WATERWORTH (Clearfield, Pa.): Dr. Heuer has shown us that our methods of treatment do not amount to so much as the type of infection. My series has been small. In a little more than 10 years 73 patients with empyema have come to operation. Of these, 7 have died, a mortality of 9.1 per cent. The infant mortality has been very low. Closed drainage was used throughout. From age 9 months to 2 years, there were 9 cases, no deaths; age 6 to 10 years, 15 cases, no deaths; age 7 years to 20 years, 2 deaths; age 31 to 40 years, no deaths; age 41 to 50 years, 1 death; age 50 years and over, 2 deaths.

As to the type of infection, pneumococcus was found

in 37; streptococcus in 33; staphylococcus in 4; 4 were sterile; mixed infections in 4; tuberculosis with mixed infection in 1.

Of the 7 deaths, the first was a very virulent infection in a child, age 3, who died within 3 days after admission. The second patient died of infection from a bronchial fistula on the thirty-second day after thoracotomy. The third, a boy age 19, began with a multiple arthritis, endocarditis, suppurative thyroiditis with abscess of the thyroid gland, and pneumonia which was followed by empyema. He died in the hospital about 3 months after admission. The fourth patient died of infection following operation for infected gallbladder. This patient also had empyema and infected hepatitis or abscess of the liver. The fifth patient had endocarditis, myocarditis, multiple arthritis, and had 2 strokes some years before being admitted, caused by an embolus. The sixth had typhoid fever, pneumonia, and arteriosclerosis. The seventh had a serious heart lesion, having been in the hospital 18 months before. At operation a mixed infection was found and on 3 or 4 different examinations tubercle bacilli were found in the pus.

Of those who died, pneumococcus was found in 3; streptococcus predominated in 1, but there were also pneumococcus and tubercle bacilli. Shock was the immediate cause of death in 1. This patient was not doing well, had been in the hospital a month, and as the cavity was not becoming much smaller thoracotomy was done and the adhesions liberated. There was an error of judgment in operating on this patient. She developed a temperature of 105° F. on the second day and died but there was no respiratory difficulty on the table. There was sepsis and endocarditis in two cases, sepsis and abscess of the liver in one.

In this small series our experience, especially as to the application of the closed method of drainage, coincides with that of Dr. Heuer. We have not had the opportunity to watch the variation in severity of infection from year to year because in our locality there have not been any of the very severe influenza waves, though there has been some influenza. The dominant factor causing death seemed to be age. There was a higher mortality in patients over age 50 with serious pathologic conditions.

NUTRITION IN NORMAL AND ABNORMAL PREGNANCY*

New Developments in Relation Thereto

JOHN C. HIRST, M.D., PHILADELPHIA

You are familiar with McCollum's nutritional requirements, therefore, this presentation will omit a general discussion of diet, offering only an obstetrical conviction of the essentials of nutrition in average pregnancy and in certain complications related to prenatal diet, including comments on the use of tobacco and alcohol. We wish to show that between the old-fashioned meat-potato-bread-sugar habit and the latest proprietary health foods and shotgun vitamin tonics lies a reasonable program with few restrictions but indispensable reinforcements.

WEIGHT

A review of 530 recent consecutive private viable births showed an average gain of 27.4 pounds, somewhat increased by excluding 14 pregnancies less than 36 weeks' duration, 29 less than 38 weeks', and only 7 over 42 weeks'. The infants averaged 7.4 pounds, including 4 pairs of healthy twins, also moderately increased by the same exclusions. The maternal weights showed for the most part some loss in the early weeks, definite drop a few days prior to labor, and but little relation to parity, age, and height. The average represents optimal gain, in spite of not infrequent silly effort to "keep thin" and generally mistaken notion of inability to take milk. The extremes of maternal weight were from minus 7 pounds (8-pound baby) to plus 68 pounds (100 pounds over her average weight;

8-pound baby). The favorable weight averages were obtained by exercise (golf, walking 2 to 4 miles daily, *etc.*), 9 hours' night rest and 1 hour daily nap, plus 3 meals a day including whole wheat cereals and bread; 1 or 2 eggs daily; copious fruit and leaf greens; minimum of starches (potatoes, rice, spaghetti), and sweets except during first 3 months of nausea; 1 quart of skimmed milk daily; cod liver oil with viosterol, and ample proteins such as beef or liver once daily.

CALCIUM-PHOSPHORUS

Negative calcium balance in the mother is more common than phosphorus deficiency. It is not induced by fetal absorption, because the fetus at 28 weeks contains but 5.38 grams calcium and at term only 30.51 grams. Maternal tetany, moreover, often begins early, so that the cause is parathyroid gland dysfunction, probably deficiency. The parathyroid glands are not indispensable, but maintain normal serum calcium-phosphorus level, which can also be accomplished by vitamin D control of calcium metabolism, therefore, the author has not been obliged to use parathormone in pregnancy. Maternal osteomalacia of pregnancy with or without tetany cannot be determined by the roentgen ray, may show low or high blood calcium level (8 to 11 mg.) because of mobilization of lime, is always present unless average diet is fortified with 1 quart of milk, and is evidenced by leg cramp, backache, and pubic pain to the point of difficult loco-

*Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

motion from relaxation of the symphysis pubis and sacro-iliac joints, and the fetus may show decided rickets. All this can and should be prevented by the addition of dicalcium phosphate up to 3 teaspoons daily plus the equivalent of 45 drops of 250 D viosterol daily. The author has never seen harmful effects to the fetus from this dosage; on the contrary believes it of direct benefit, and has observed relief from the maternal symptoms mentioned above as well as a minimum of tender, soft teeth.

OTHER VITAMINS

The identification or crystallization of at least 3 vitamins raises the question of intensive administration. In addition to vitamin D mentioned above, and "B" later, we have chiefly "A" to consider. It is most unlikely that urinary or respiratory infection can be avoided during pregnancy, or that fetal growth can be favored by adding carotene to the schedule.

BIRTH BLEEDING

Nothing but good obstetrics will prevent hemorrhage from miscarriage, placenta previa, premature separation, or mismanagement of third stage placental separation and expression, but the continued administration of the equivalent of viosterol with dicalcium phosphate undoubtedly produces a firm pelvic floor, favorable for suturing, dry and resistant to laceration and infection. In fact the author has repeatedly found which women have or have not taken this vitamin by the difference in the tissues.

ANEMIA

Routine blood examination will show an almost universal tendency to secondary type anemia, most marked at the seventh month, usually spoken of as physiologic. It is not due to hydremia in spite of blood specific gravity drop from 1.053 to as low as 1.040 and may be avoided in part by the full mixed diet previously mentioned, including daily beef, liver, or sweetbreads, and readily corrected by the administration of copper and iron. Fortunately, postpartum hemorrhage is not predisposed to by this type of anemia.

The perniciouslike anemia caused by pregnancy is very uncommon in this country although frequent in East India. It is short, occurs mostly near age 25, cured by delivery, and related to gastro-intestinal disturbances.

TOXEMIA

Early excessive vomiting of pregnancy, probably neurogenic in origin, and certainly associated with more or less pylorospasm, carries not

only the well understood dangers described as toxemia, but always results in mineral and vitamin deprivation. The most important deficiency is that of vitamin B, which is always deficient even in healthy pregnant and nursing women, and if reduced for prolonged periods, as in hyperemesis, is responsible not only for much of the malaise but is a direct cause of the dangerous if rare multiple neuritis formerly described as "toxic." Brewer's yeast should be supplied to all hyperemesis patients. Furthermore, pediatricists inform us that better infants are born from the feeding of vitamin B to normal mothers, and that less pylorospasm develops, therefore, the author includes some form of malt extract tonic for many women.

The management of late gestational toxemia is greatly concerned with fluid balance, which is the more difficult from tendency to fluid retention as the result of pregnancy-pituitary changes. Formerly many eclamptic convulsions have been induced and cures prevented by forcing fluids. Since the pregnant diet requires so much of fruit, vegetables, and milk, 3 glasses of water daily are ample, and in late toxemia 1000 c.c. total fluids are the usual maximum, along with body dehydration.

Obstetricians are luckily not faced with difficult problems of protein feeding, since women with nephritis should not conceive or should be aborted, and mothers with late toxemia do not remain undelivered very long. Therefore, the loss of protein over a long period of time is never an issue. Generally speaking we give ample protein, little salt, and moderate fluids in all pregnancies, in order to avoid low serum protein levels and edema.

In this connection, the administration of glucose, so popular in the toxemias of pregnancy (well diluted in vomiting, and strongly hypertonic in pre-eclampsia and eclampsia), is also of help to the fetus. There is evidence that fetal death may be prevented by intravenous glucose given to the mother, and by direct administration after birth.

THYROIDISM

Thyroid deficiency causes 5 per cent of functional sterilities, and usually accompanies hypopituitarism which when severe represents 60 per cent of functional sterilities, but many women enter pregnancy with moderate primary or secondary thyroid deficiency, which is the commonest cause for habitual premature birth of non-syphilitic living children. It is our custom to give very small amounts of iodine in some form (syrup of hydriodic acid, sodium iodide, or Lugol's solution) to all mothers with evidence of

inactive thyroids or with obvious physiologic excess hypertrophy of the gland. Such iodine feeding tends to prevent congenital fetal goiter.

TOBACCO AND ALCOHOL

Although one or two cigarettes *after meals* can hardly be matter for serious thought, the pregnant woman is better off without smoking. Some of the most marked "immature" babies that we have seen, were born to inveterate tobacco addicts. Beer is an excellent tonic for the asthenic mother, before and after birth of the fetus, as is light wine to a lesser degree. Strong

alcoholic liquors frequently taken are dangerous and must be prohibited.

SUMMARY

It may be said that the fetus fortunately does fairly well regardless of moderate maternal diet deficiency (as witness the greater fetal blood concentration of calcium, copper, *etc.*) but to secure the greatest chance for the newborn and to protect the mother against birth harm as well as to insure the best foundation for lactation, the features mentioned above must not be neglected.

1918 Pine Street.

CASE REPORTS*

HEMORRHAGIC DISEASE OF THE THYMUS

NORBERT D. GANNON, M.D., ERIE, PA.

The presentation of this case in no way enters into the controversy of sudden collapse and death as being due to the much discussed and much maligned status thymicolymphaticus. It is offered because of its rarity in pediatric literature, unusual findings at necropsy, and an atypical symptomatology.

An apparently well infant, age 10 weeks, suddenly went into collapse, becoming limp, pale, pulseless, and dyspneic. A full bottle was taken at 9 a.m., and at bath time the infant went into shock. The family physician preceded me and there was a question whether the baby had a convulsion or lapsed into immediate coma. From the persistence of the condition with no definite rallying it was considered shock.

This collapse without warning made us suspicious of an intestinal obstruction despite the fact that the bowel action and stools had been normal. The child vomited but once during this acute illness. Examination revealed an infant in state of collapse with respirations slow, labored, and grunting. Pupils were dilated and sluggish. Throat only moderately injected. Heart rate rapid and weak with no dilatation. Lungs showed moist râles at both bases posteriorly, and dullness. The abdomen was tender on palpation, and distended with considerable flatulence. The extremities were normal as were all reflexes.

The vagueness of the picture suggested hospitalization, in which a study was made and surgical opinion obtained. The infant was much distressed, particularly its respiration, with no cough or cyanosis. The blood study was normal, as was urinalysis. Spinal fluid was normal. The roentgen-ray study for obstruction was not conclusive despite the report of a possible obstruction, for at necropsy this was found merely pressure constriction from the liver.

The roentgen opinion stated: "Large areas of gas beneath left diaphragm with numerous areas of gas throughout middle of abdomen. The barium enema enters freely to splenic flexure where it is temporarily ob-

structed. It then continues across the transverse colon as a narrow stream, giving appearance of extensive pressure from the previously noted gas. Barium given by mouth enters and fills the stomach showing no communication with gas. Two hours after, trace of barium in stomach with most of it in the jejunum. Large areas of gas practically disappeared. Colon is partially outlined. Lung fields appear clear. Conclusion: Small intestinal obstruction, partially relieved at second examination."

Upon examination of abdomen, advice was against any surgical procedure, believing that the respiratory distress was foremost, particularly upon the location of many moist râles at both bases. It was felt proper further to observe the infant.

A few hours after the onset of collapse the child temporarily rallied after the repeated administration of glucose by hypodermoclysis; nothing, by mouth. Bowels evacuated by a soap enema. Child continued languid, pale, with no cyanosis, but very much respiratory distress and grunting. Seven hours after onset the infant suddenly died. There being no further convulsions or twitchings.

At necropsy there was no evidence of hemorrhagic disease found elsewhere except in the thymus gland. No evidence of blood stream infection was elicited. External examination was negative. The abdomen and intestinal tract were normal throughout. The thorax examination showed some dark, blood stained fluid in the pleural cavities. The râles were accounted for by the lung findings. Lungs were similar in appearance, the upper lobes being fairly crepitant, but both lungs showed patches of firm consolidation, most marked in the lower lobes, the base of the right lung being especially firm and its cut surface being solid in consistency and red in color; proving a bronchopneumonia as one of the diagnoses.

The heart showed no increase in pericardial fluid. Left side was distended; the right heart was flaccid and collapsed. Of especial interest was that the pericardium, posteriorly, over the base, showed numerous areas of hemorrhage. The left ventricle was found distended with a firm blood clot, but the myocardium and heart valves were negative. The surprise and most unusual finding was the pronounced hemorrhage in the thymus

*Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

gland. This gland was slightly enlarged, weighing 20 grams. The entire organ was covered with blotches of hemorrhage, varying from pin point in size to 1 cm. in diameter, which extended throughout the entire thymus gland. Upon cutting, hemorrhage was profuse throughout. The hemorrhage was particularly marked on the posterior portion of the gland, and on section was found to extend entirely through the organ. Extensive hemorrhage persisted throughout the gland.

Microscopic section showed no inflammatory lesion as a possible causative factor in this bleeding. No bacteria were seen and very few leukocytes found.

With these findings the past history of the infant is of interest. It was a second child of 4-pound birth weight. Normal pregnancy and delivery; no breast milk available. Apparently feeding was a difficult problem from the onset. It was started with milk and dextrimaltose, then changed to malted milk mixture, then back to cow's milk. On this latter feeding, began to twitch some. During all these types of feedings the infant gained 2 to 3 pounds, but at the expense of much distress, with gas and straining. I first saw the infant at 6 weeks of age with this history, at which time it was placed on lactic acid feedings and it did very well until the sudden collapse and death. It was less irritable, gained in weight, and was free from distress. At this time the physical condition of the baby was quite good.

In the search for further authority to warrant the extensive hemorrhage in the thymus gland as being causative of the death of this infant, I was unable to find any cases or records. Lymphatism was out of the question for no other lymphatic involvement was found at necropsy. The overwhelming hemorrhage, of undetermined origin, could certainly have been responsible for this truly thymic death.

The usual lesions in the thymus are interstitial hemorrhage, tuberculosis, hypertrophy, and involution. Most findings in literature are of hypertrophy, with little mention of hemorrhage, or hypertrophy as part of gen-

eral lymphatic disease. Warthin states that the weight of the thymus at the age of this infant is 7 to 10 grams, and anything over this is considered hypertrophy; and that was the condition in this case, the thymus weighing 20 grams, and accompanied by much bleeding.

Acute infections accompanied by massive disintegration of thymic cells could be responsible for shock and death. In this case, infection, although not substantiated microscopically, could have been responsible for this picture. Usually inanition, athrepsia, and infections of long standing cause a regression of the gland which is slow and as a rule unimportant. With inanition there is a gradual involution with a reversion to epithelial structures. This was not a case of inanition, despite difficult feeding history.

Morse states that in acute congestion of the thymus gland there is interference with inspiration, which was present in this case; more pronounced than that caused by pneumonia. He further says that breathing may stop in either phase. Quoting Morse: "An attack of acute congestion of the thymus may cause death without there having been any previous symptoms."

This has been an interesting case of more than ordinary value for study. The pneumonia would have been recognized, but the thymic condition never, without necropsy. One would naturally have thought of some type of intestinal obstruction upon first examination or cerebral lesion. It brings out the value of complete study of obscure cases and the necessity for necropsy.

354 West Ninth Street.

AN UNUSUAL CASE OF RETROPHARYNGEAL ABSCESS

RICHARD R. SPAHR, M.D., MECHANICSBURG, PA.

L. R., age 10 months, was admitted to the Harrisburg Polyclinic Hospital, Nov. 12, 1932, at 8:00 p.m., with dyspnea, hoarse cough, and glandular swelling over left side of neck.

Past history: Born Jan. 3, 1932; normal delivery (is one of twins); has been well since mother and baby left the hospital.

Present illness: About 3 weeks prior to admission, mother noticed that child was restless, having fever, but no chills. The family physician was called, finding fever and dyspnea present but no cough. Throat culture was taken, which was returned, negative. The child meanwhile received diphtheria antitoxin. Within a week, temperature was normal and child was improving, both cough and dyspnea were less. Several days later, when removed from bed by mother, child seemed "choked," and dyspnea was more marked. This condition became progressively worse, with enlargement of the cervical glands. Cyanosis was not noted at any time prior to admission.

Physical examination: Baby was a well-nourished male child. Eyes, ears, and nose were normal. Tongue was heavily coated (white); tonsils were not enlarged;

the pharynx was very difficult to see satisfactorily but apparently not inflamed; the mouth and throat were full of frothy mucus. The neck showed enlargement of the anterior cervical glands, especially on the left side, with an apparent thyroid enlargement (intern's notes). Heart, lungs, abdomen, and extremities were normal.

The staff members were asked to see the child, including a surgeon and nose and throat member. On account of the child's age and the large amount of mucus which seemed to be constantly present, the examinations made were unsatisfactory, and not of help to the physician in charge. An enlarged thymus or a mediastinal abscess were suggested as possible causes of the condition present.

Roentgen-ray report stated that the mediastinum was about twice its normal width, being suggestive of either an enlarged thymus or a mediastinitis.

For 4 days after admission the child's condition seemed improved, the mucus being less in amount and the child more comfortable. From then on, however, the swelling of neck became more prominent, the head being held in hyperextension, and cyanosis also being noticed. Glucose in saline was given by hypodermoclysis

and oxygen also administered the last 2 days of life. Death occurred on Nov. 19, 1932, one week after admission.

Laboratory findings: Throat culture (3 times) showed staphylococci, micrococcus catarrhalis, and a few pneumococci. No B. diphtheria found. Blood: red blood cells, 3,540,000; white blood cells, 19,000; hemoglobin, 65 per cent; neutrophils, 78; small mononuclears, 20; and transitionals, 2.

On Nov. 15, 1932, white blood cells, 18,700; neutrophils, 63; small mononuclears, 32; and transitionals, 5. Kahn test negative.

Treatment: Local mouth and throat care; laxatives; atropine or tr. bell. calcidine, roentgen ray; ultraviolet light; sulpharsphenamine (subcutaneously), and hypodermoclysis.

Necropsy report: Body is that of a baby boy, age 10 months. The body is 68 cm. long. The pupils are equal and measure 4 mm. in diameter. Ears and nose are negative. Frothy fluid is coming from the mouth. Skin is pale. Body seems fairly well nourished. There are no scars on the body. Abdomen is considerably distended.

Thorax: There is no free fluid in the pleural cavities. The upper lobes of the lungs are pale. The lower lobes show hypostatic congestion. Lungs are crepitant throughout. There are no adhesions of the lungs. The pericardial sac contains a normal amount of free fluid. The heart is of normal size, and appears negative.

The thymus gland appears normal in size, measuring 3.9 cm. in width; and weighed 18 grams, which is within normal limits. On palpation felt at first as if it were thickened in its upper and posterior part. On dissection it was found that this thickening was due to a pocket of pus above it and behind which was quite tense. When nicked with the knife, it released a vast amount of greenish pus, coming down from the left cervical region through the soft tissues and along the vessels of

the neck; in rear of trachea and esophagus. This tract had extended from the postpharyngeal region to the upper mediastinum. Smear made from this pus showed moderate numbers of pneumococci. The amount of pus which could be forced downward along this tract was enormous.

Anatomic diagnosis: Large retropharyngeal abscess, of left side, pushing down to the thymus, pneumococci in type; and toxic changes in the kidney.

Microscopic section of the thymus showed normal structure.

ABSTRACT OF DISCUSSION

RICHARD R. SPAHR (Mechanicsburg, Pa.): I should like to ask a question—not particularly applicable to anything presented, but concerning a case which is a new condition to me. Recently I delivered a male infant with an anomaly. This boy weighed over 10½ pounds at birth, and is apparently normal in every way, except that there is an opening right at the top of the sternum. Over this opening was hanging a pedunculated cyst, which I tied off. The opening is not connected with the respiratory system. The baby breathes and eats normally, and seems to be all right in every way. The opening apparently goes behind the sternum, but I have not probed it, and the roentgenologist hesitates about injecting anything into the opening to take a roentgenogram of it. Can anybody give me any suggestion as to what it might be? The child is healthy otherwise. There is a mucous discharge from this opening.

MAURICE SALTZMAN (Philadelphia): I have had a somewhat similar case in a man age 50, who was operated upon and a cyst found. At that particular time there was some question of complication, but he lived for some years afterward and subsequently died of a mediastinal malignancy.

UNFAVORABLE ACTIONS OF SOME COMMON DRUGS*

O. H. PERRY PEPPER, M.D., PHILADELPHIA

We are all familiar with the long known fact that drugs given to do good may occasionally cause serious and even fatal results. Fortunately severe toxic reactions are very uncommon and every physician is alert to avoid any such result which is so out of harmony with that basic principle of medicine—"Primum non nocere"—in the first place, do no harm."

It is not concerning such serious reactions that I wish to speak, but rather concerning unfavorable effects of much milder degree. The less severe and dangerous a toxic effect is, the less apt it is to be recognized, prevented, or cured. Sometimes the same drug in the same dose may in one patient cause mild toxic symptoms; in another "sensitive" individual, a fatal poisoning.

Cinchophen compounds act in this fashion and are present in a large number of popular remedies for arthritis and rheumatism. Twelve

years ago Schroeder reported 17 cases of mild poisoning—with transient jaundice, gastro-intestinal disturbance, and headache. Nine years ago Cabot reported the first recognized fatal case. Last year, Weis collected 89 cases of hepatotoxicosis from this cause and added 3 fatal cases himself. Of these 92 cases, 52 recovered. Two of his patients had taken atophan, one farastan. If we realize that the severity of the toxic action bears no relation to the amount of the drug taken—toxic symptoms having followed as little as 15 grains—and that the milder toxic symptoms include pruritus, urticaria, various skin eruptions, rapid pulse, low blood pressure, nausea, vomiting, and diarrhea, we must conclude that a vast number of such mild reactions probably are occurring without being identified.

Although the majority of these reactions are mild, there is always the danger of fatal liver damage. One might be tempted to take the risk if the cinchophen compounds offered a sure and

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only cure for a serious condition as, for example, do those who feel that the results obtained in chorea justify the use of nirvanol even though one is risking the so-called "nirvanol sickness" with fever, rash, and eosinophilia some 6 to 12 days after the drug is commenced.

The barbituric acid preparations—whose name is legion—illustrate every phase of our subject. Not only are some individuals affected by relatively small doses, but marked cumulative effect may abruptly occur. I have seen an individual develop incoördination and incoherence following the taking of the usual dose of one of the barbiturates for relief of insomnia. The following morning the patient was intensely incoördinated, dizzy, and nauseated. Vomiting occurred. The patient staggered if he attempted to walk and there was intense headache. On examination, there was bilateral lateral nystagmus.

On several other occasions the use of barbituric acid preparations has produced similar but less pronounced symptoms in this patient.

It is an accepted fact that phenobarbital and other barbituric acid preparations may cause severe and fatal reactions. The more marked reactions may be divided into the cutaneous and the systemic. The rash may be urticarial, scarlatiniform, or morbilliform; it may be hemorrhagic; it may be accompanied by intense itching.

The systemic reaction may consist of stupor, mental disturbances, speech disorders, paresthesias, pyrexia of long duration, nausea, vomiting, headache, and vertigo. In the aggregate these symptoms must promptly lead to the recognition of the trouble but unfortunately if the reaction is mild the cause may not be recognized and the drug may be continued—until perhaps a more serious reaction is produced. Even a picture suggesting multiple sclerosis may ensue.

Many patients are depressed and their recovery delayed by the administration of barbiturates. Often the initial dose is administered in the hope of assuring sleep during an illness or following an operation. Once ordered, the drug is often continued nightly without much thought as to its need or effect. In a recent postoperative case the patient suffered severely from insomnia and depression almost to the point of melancholia until the nightly dose of barbiturates was omitted. An expensive and harmful habit now growing in hospitals is that of a routine order of some barbiturate for almost every patient upon admission. Often the apparent need of such medication is only the result of a previous dose. An individual accustomed to sleep seven hours when well and active,

can scarcely be asked to sleep as much when bedridden and ill. Too little common sense is used in this matter of hypnotics. We have learned the lesson that nothing is so conducive to constipation as the use of cathartics, and we must apply the same reasoning to sedatives and hypnotics—even to the milder ones.

A recent report from Sweden states that poisoning caused by barbituric acid derivatives has become very prevalent. Often the condition develops very insidiously from continued use of the drug in small doses. Often this condition is mistaken for paresis. It is interesting that it is in patients who are emotional and high strung that symptoms of barbiturism usually occur and it is in these very patients that one is most apt to prescribe some member of this group of drugs.

Ephedrine is a very useful drug but with well known toxic reactions at times and with far more frequent and often unrecognized milder and unpleasant effects. The more marked reactions include generalized dermatitis, headache, abdominal cramps, and even urinary retention. Also hematuria has been observed. Far commoner than these is a state of increased nervousness which may be very unpleasant. Irritability and nervousness may be intense, and are often attributed to the hay fever or asthma for which the ephedrine is being taken. Palpitation and a sense of fullness in the head are also frequent results. Insomnia is perhaps the commonest effect in my own experience. It is observed repeatedly following the use of ephedrine by nasal instillation. In one patient supposedly cured of thyrotoxicosis by subtotal thyroidectomy the use of ephedrine produced a picture with nervousness, palpitation, tachycardia, and insomnia which led to the suspicion that a recurrence of thyroid trouble was occurring.

With ephedrine, as with so many drugs, the dosage seems to play little part in the production of toxic symptoms. It is rather a matter of individual susceptibility. Increasing dosage, however, will aggravate matters. In one patient, insomnia was blamed on a severe hay fever and increasing amounts of ephedrine were used with increasing inability to sleep.

Many patients, on the other hand, take ephedrine in large doses for long periods with no untoward results—but often there is a general heightening of nervous tone which, though perhaps beneficial in some instances, is far more often a source of discomfort to the patients and perhaps even more so to their families.

Synthetic ephedrine, or ephetonine, is claimed to have less tendency to produce unpleasant symptoms, just as thyroxin is less apt to than thyroid substance.

We should not let our attention be so focused on the newer drugs that we lose sight of the unfavorable actions of some of the older ones. We should not forget that local irritation may be caused by a soap enema, that argyria may result from organic silver preparations, that morphine may cause intense itching, that acetylsalicylic acid cannot be taken by all individuals. This latter substance may, in sensitive individuals, cause allergic responses of every grade of severity—from the mildest to the fatal.

The presence of acetylsalicylic acid in many proprietary formulæ is the cause of many untoward reactions in individuals who conscious of their idiosyncrasy would avoid knowingly taking the drug.

Belladonna is the classical example of a useful drug which often produces unpleasant results. For instance, the mental confusion caused in some patients by even small but continued doses of belladonna would seem to be so well known as to be always recognized. Yet I once traveled some distance to see a patient with gallstones and jaundice who had been taken to the hospital for operation. Surgery had been delayed because of the patient's very marked mental confusion. A suspicion of cholemia had been entertained. As the physician, the surgeon, and I approached the patient's room, the surgeon had an opportunity to speak with me in the absence of the physician. He said he suspected that the patient's mental confusion was due to belladonna which was being given her by the physician in the hope of relaxing the common duct to permit passage of the stones. He had not felt that he could mention his suspicions to the physician. The surgeon's diagnosis was undoubtedly correct—dilated pupils, dry, and reddened skin, dry mouth, rapid pulse, and active talkative delirium made a picture which I hope I would have recognized without the surgeon's help.

I am, however, not so sure—as I was distinctly slow in recognizing a far milder instance of my producing this past winter. The elderly woman was taking $\frac{1}{4}$ grain of the extract of belladonna 3 times a day in the hope of avoiding a secondary laparotomy for adhesions. There was distinct improvement in her intestinal symptoms but she became nervous. She stated she felt woozy and suspected it might be that she was becoming senile. There was no dry mouth, no rash, no tachycardia and but little widening of the pupil. She did complain of a loss of the sense of taste. A week without belladonna gave relief. It is not that we do not know that drugs in therapeutic doses may give toxic symptoms but that it slips our mind in the rare individual instance.

Digitalis may cause a variety of undesired effects. Nausea and vomiting are the ones which we are all quick to identify; but the toxic amblyopia from digitalis is often not recognized. That amblyopia may be caused by digitalis has been known ever since the days of Withering—but it is often forgotten.

Nitroglycerin is a drug which sometimes does the unexpected. Very often it causes flushing of the face and a thumping headache—more rarely a serious collapse with marked drop in pressure may follow the administration of the usual therapeutic dose of this drug. Sprague and White advise the preliminary trial in each patient of a dose far smaller than usual, perhaps one-four hundredth grain.

Nitroglycerin is often unwisely administered but such harmful results cannot be blamed on the drug itself. Similarly it is not proper to blame cocaine for the untoward toxic symptoms when this drug is unwisely applied to a raw surface. The rapid pulse and circulatory weakness which may ensue are very alarming.

Undoubtedly there are many new syndromes arising from the countless products of this chemical age, some we already have recognized, others are waiting to be identified and described. In this group one might place the various radium waters which have come into unfavorable notoriety as a result of the deaths of several misguided individuals; also various cosmetics may belong in this category. A cream with its neuritis producing content of thallium comes to mind. The physician must constantly be alert to recognize while still early the manifestations of such poisonings.

A good example of how a drug reaction may go unrecognized is supplied by a patient admitted to the wards of the University Hospital this past winter. A young Italian male was admitted with a generalized skin eruption, stomatitis, fever, and itching. The present attack was the fifth similar attack during a period of 4 years. In each, without any apparent cause, he suddenly has been seized with flushing, itching, and fever. A widespread skin eruption and a sore mouth promptly appeared. Each attack has lasted from 10 to 20 days. In each the skin eruption has been similar—a widespread blotchy erythema involving very markedly the extremities and buttocks. The leukocyte count was 14,000 of which 12 per cent were eosinophils. The fever remained above 101° F. for 3 days and then slowly subsided as the skin and mucous membrane lesions subsided. We were at a loss to diagnose the condition but Dr. Beerman of our Dermatological Department at once recognized the condition as due to phenolphthalein.

Questioning elicited the fact that the patient had taken a dose of a preparation which on examination was found to contain phenolphthalein. Dr. Beerman has a collection of some 83 preparations which are on the market and which contain this drug.

It is interesting to note that on two of his previous attacks the boy had been admitted to leading hospitals of Philadelphia—in one, the diagnosis was erythema multiforme; in the other, the condition was suspected of being due to secondary syphilis of the recurrent type even though blood and spinal fluid Wassermann and Kahn tests were negative. A most instructive lesson for us all.

In the field of endocrine therapy we should not be surprised to discover that preparations given for one quite justifiable purpose may well have undesirable side actions. Certainly we do not know any too well all the effects of the potent glandular extracts which have so recently become a part of our armamentarium; yet there is a tendency to employ these substances freely and perhaps even carelessly. The use of thyroid substance to reduce weight is a familiar example.

A recent report about the effects of insulin is eye-opening in this respect. It shows that if insulin is given to nondiabetics, as sometimes is done to improve nutrition, there does not occur any important lowering of blood sugar unless very large doses are given. If after some time the insulin is stopped there then occurs a distinct rise in blood sugar and the appearance of sugar in the urine. During this period, a diabetic state exists probably as the result of pancreatic inactivity. Weight is lost and it takes some time for the pancreas to resume its normal task from which it had been relieved by the supply of administered insulin.

It is quite possible that the administration of insulin unnecessarily to the mild diabetic can in an analogous manner lead to a let up in whatever pancreatic function is left and a loss of efficiency rather than the reverse.

Until we know more we should be conservative in the use of potent preparations of the endocrine glands.

CONCLUSIONS

We, the medical profession, should make every effort to learn the harmful potentialities of the drugs we employ. To this end we must demand the whole truth from the manufacturers, not only claims of therapeutic virtues but frank admissions of toxic dangers including the milder toxic effects and the possible results of accumulation.

We must be more discriminating in the selection of the preparations we prescribe and more cautious in the administration of drugs with harmful properties. Only by keeping this subject in mind, by the use of small initial dosage, by avoidance of the danger of cumulated action, and by a greater realization of the occurrence of sensitivity, can we most safely accomplish our therapeutic purposes.

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ABSTRACT OF DISCUSSION

MAX LEVIN (Harrisburg, Pa.): Dr. Pepper mentioned that ephedrine in susceptible individuals produces insomnia. It is interesting to note that this fact is utilized therapeutically in cases of narcolepsy, a disorder characterized (in part) by the occurrence of attacks of sleep at frequent intervals throughout the day. Ephedrine has proved to be the most successful remedy for this disorder. It is so successful in banishing sleep that one must not prescribe it to be taken after 4 or 5 p.m. One of my patients was advised to take the last of her 3 daily doses at 4 p.m. On a few occasions she forgot to take the medicine at that hour and took it at 6 p.m., when she became aware of her omission. On these occasions she found that she could not fall asleep until long after midnight.

In selecting drugs for specific mention, Dr. Pepper was forced to choose a few from a large number. Therefore, when I mention a drug he omitted I do so in no vein of reproach. I refer to bromide—a drug which probably is given to more persons than any other. It is fairly well known that susceptible persons, if given bromides, develop a rash. It is not so well known that they may also develop delirium and other transitory psychoses. The frequency of mental disorder caused by bromides may be gauged by the fact that at the Harrisburg State Hospital no less than 8 cases of bromide psychoses were found in a group of 223 consecutive "first admissions." I venture to offer a few suggestions for the prevention of bromide delirium. (1) When about to give bromides to the patient, ascertain whether he has ever had a delirium. If he has, it may indicate a susceptibility to delirium, and if bromides are given to him it should be with extra caution. (2) Try to ascertain whether the patient is getting bromides from another physician at the same time he is getting them from you. (3) Does the patient take much or little table salt? Since the chloride ion easily displaces the bromide ion in the blood, a person may more easily develop a bromide intoxication if he takes little table salt. Such persons should be watched carefully for symptoms of bromide intoxication, even if they are taking a relatively small dose of bromides. (4) If a nervous patient, during treatment with bromides, becomes increasingly nervous, do not conclude that an increase in bromide dosage is indicated. In these cases, aggravation of nervousness may be the premonitory sign of a delirium. The safest rule is to discontinue bromides immediately on the occurrence of any such aggravation.

ALBERT E. ROUSSEL (Philadelphia): I should like to know if occasionally symptoms of belladonna poisoning can be produced by the ordinary atropine solution used by oculists. Some years ago a boy age 7 or 8, under the care of a competent oculist, was left the standard solution, 2 grains to the ounce, a certain number of

drops to be applied on 4 or 5 different occasions. The youngster was seized with symptoms of rise in temperature, flushed face, and rash, and the family was alarmed.

It is interesting to note that some of these persons have undue irritability. Allonal, which is so frequently used today and is useful sometimes if it does not pro-

duce slumber, is apt to result in a condition of disorientation and a rather anomalous type of symptoms which may cause confusion. Veronal, if sleep is not produced, will make the patient loggy the next day. In a few cases of allonal irritability the patient was disorientated and talked at random, causing considerable confusion in the course of his disease.

CANCER OF THE LIP*

Results of the Treatment by Electrocoagulation and Irradiation

GEORGE E. PFAHLER, M.D., AND JACOB H. VASTINE, M.D., PHILADELPHIA

With the knowledge now available, cancer of the lip like cancer of the skin should be entirely eliminated as a cause of death. Disease in this area can always be recognized in its earliest stage by the patient because the slightest macroscopic change can be felt by the patient's tongue and can be seen in the mirror. In this early stage all can be cured if treated skillfully and thoroughly at the beginning.

Failures are due to delay, to inefficient treatment, or to the application of some superficial irritating substance which causes congestion, and increases the rate of growth.

Delay in treatment often occurs because the lesion may begin as a "fever blister," or a superficial crust, or fissure, or ulcer, or wart, which may seem so simple to the patient that cancer does not enter his thoughts. Another cause of delay other than ignorance or indifference is fear; fear of pain, operation, death, deformity, anesthesia, and hospitalization. These are often the cause of procrastination in seeking medical advice or even after a physician has been consulted, the patient will often delay because he is unwilling to submit to surgery, or any radical dissection. Such delays can be avoided if the patient is made to understand that the procedures such as we advise are practically painless.

Precancerous and cancerous lesions may result from excessive smoking, biting the lip, or from excessive exposure to sun or wind over long periods of time, as occurs in farmers and sailors. Very similar lesions may have been present earlier in life and may have disappeared with no special thought or treatment. *The important lesson to learn is that if a lesion of the lip does not show signs of disappearance within 10 days or 2 weeks, it should be regarded as cancer or syphilis until proved otherwise.* The most distinguishing feature to indicate cancer is the indurated edge or border which is due to its infiltrating character.

TREATMENT

Successful treatment of carcinoma of the lip consists in *early*, adequate destruction. There are various means of effecting this. We do not intend to discuss or condemn the methods of treatment other than those employed by us. Condemnation is so often the product of unfamiliarity on the part of the self-appointed critic that it reflects discredit on him rather than on the method which he is discussing. Time does not permit controversy, and dogmatism is unjustified through the lack of unanimity of opinion regarding treatment of carcinoma of the lip.

The methods employed by us in dealing with this condition have been so satisfactory to us that we present these methods with their results.

Early cases with no palpable nodes are treated by surrounding the lesion with a line of local destruction by electrodesiccation, after local anes-

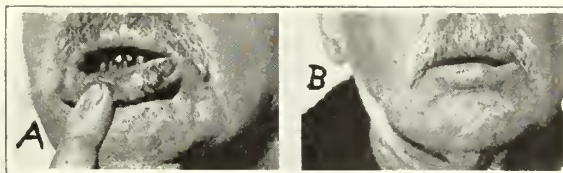


Fig. 1.—(A) Shows a patient, age 70, referred on June 17, 1921, with an epithelioma of one year's duration. This lesion had been preceded by crust formation. It was destroyed by electrocoagulation, followed by roentgen-ray treatment over the neighboring lymphatics.

(B) Shows the lip entirely well, Nov. 1, 1921, and his lip has remained well at least until March 16, 1933, after a period of 12 years, but we get the report that he is now being treated for carcinoma of the rectum, at age 82.

thesia with novocain; then the removal of a specimen for biopsy and immediate destruction of the remainder of the primary growth. This is all done at one time rather than at repeated visits. It should never be done piecemeal. This removal of the primary growth is followed by administration of high voltage roentgen rays generated with 200 kv. and filtered through 0.5 m.

*Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

TABLE I.—*Results in 275 Cases of Epithelioma of the Lip*

Females, 33 = 11 per cent; males, 264 = 89 per cent.	
Treatment carried to a conclusion	275
Advanced and hopeless cases in which treatment was not advised	22
Total	297

TABLE II.—*Classification According to Results of Treatment*

Living and free from evidence of disease	226
Dead from carcinoma	39
Well when last seen—not traceable	10
Total	275
Omitting the untraceable cases—Recoveries, 85% Dead, 15%	

of copper, directed through the lip, the submaxillary, and submental regions producing a cross-firing effect on the cervical nodes. This irradiation is given in repeated doses until a total of about 1400 R has been administered through each portal; the saturation (Pfahler) technic being employed. It is important to remember that the lymphatics from the lower lip spread rather superficially until crossing the lower margin of the mandible at which they penetrate to deeper levels. It is also important to remember that the lymph drainage from the upper lip is superficial and to the nodes near the angle of the jaw or in the submental region. Thus, in lesions of the upper lip with no palpable nodes,

a procedure, somewhat similar to that described above, is followed. It is felt that there is greater likelihood of metastases in these more extensive cases and that greater dosage of irradiation is justified, both in regard to saturation and the total amount administered. In extensive lesions in which destruction by electrocoagulation is not practical, radium element, administered both interstitially and on the surface, is employed. A filtration of 0.3 to 0.5 mm. of platinum is employed in the radium needles for interstitial use and a filtration of 2.0 mm. of platinum is used in surface applications. The number of milligram-hours depends on the size of the lesion irra-



Fig. 3.—(A) Shows a man, age 45, referred on March 11, 1919, with an epithelioma occupying the inner surface of the right side of the lower lip, and not showing externally in any way. The lesion developed as a "fever blister." It was approximately 1.5 cm. in diameter, and had been present only a month. It was destroyed by electrocoagulation, followed by high-voltage roentgen-ray treatment over the neighboring lymphatics.

(B) Shows the lesion healed, and it has remained well to date.

diated. High voltage roentgen therapy is administered to the regional areas of lymph drainage either alone or combined with radium packs at a distance of 4 to 6 cm., depending upon the presence of palpable lymph nodes. If there is manifest disease in the nodes, surface applications of

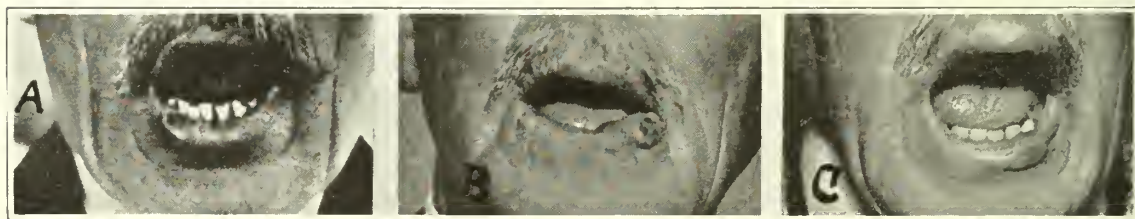


Fig. 2.—(A) A man, age 54, referred on April 22, 1907, with an epithelioma on the right side of the lip caused by excessive smoking. This began with a crust formation 3 years previously. This was treated by fractional doses of roentgen rays.

(B) Same patient 22 years later, with the right side of the lip remaining well, but at this date, Sept. 14, 1929, he had a new epithelioma at the left side of the lower lip. He

had never stopped his excessive smoking, and stated that he would rather be dead than stop smoking. This second lesion showed squamous cell carcinoma, and was treated by electrocoagulation, and followed by high voltage roentgen-ray treatment over the neighboring lymphatics.

(C) Shows the lip well, and the second lesion has remained well 4 years. The first lesion has remained well 26 years.

it is very important to irradiate thoroughly through lateral fields as a prophylactic measure.

Extensive lesions, greater than 1.5 cm. in diameter, require greater individualization of the treatment. Those in which destruction is advisable and in which there are no manifest nodes,

radium are combined with interstitial irradiation by means of needles of radium element inserted about the diseased nodes.

In no instance do we depend on interstitial irradiation alone for either the local or the lymphatic treatment.

TABLE III.—*Classification According to the Extent of Disease*

	Recoveries	Dead from carcinoma	Total
Local lesion, 1.5 cm. or less in diameter.	151 = 98%	3 = 2%	154
Local lesion, extensive, i. e., more than 1.5 cm. in diameter.	49 = 79%	13 = 21%	62
Cases in which there were palpable lymph nodes	23 = 51%	22 = 49%	45
Postoperative irradiation given before recurrence	3 = 75%	1 = 25%	4
Total	226	39	265
Cases with no palpable lymph nodes ...	200 = 92%	16 = 8%	216
Cases with palpable lymph nodes	23 = 51%	22 = 49%	45

Cases treated prior to July 1, 1928:
Primary cases—143 cases (5 years).

TABLE IV

	No. of cases	Well	Percentage well over 5 years	Dead from carcinoma	Lip well, Dead from intercurrent disease	Not traced full 5 years
Local lesions—less than 1.5 cm.	101	83	96.5%	3	12	3
Microscopically proved cases			91.6%			
Extensive lesions—larger than 1.5 cm... ..	30	16	76.2%	5	8	1
Cases with palpable lymph nodes	12	5	50.0%	5	2	0
Total	143	104	88.8%	13	22*	4

Table IV includes all cases, both those upon which a biopsy was performed and those upon which the diagnosis was made clinically. Since 1925, biopsies have been taken routinely and the percentage of 5-year cures, of those examined microscopically, is 91.6 per cent corresponding quite closely to the percentage of cures in which the diagnosis was made clinically. While we take biopsies routinely and recommend the continuance of this procedure, we do place considerable reliance on our clinical judgment. No cases were included in the above analysis in which the clinical diagnosis was carcinoma and the microscopic diagnosis not so.

* Not included in percentages.

TABLE V.—*Recurrent Carcinoma of the Lip—54 Cases Treated Prior to July 1, 1928 (5 Years)*

	No. of cases	Well	Percentage well over 5 years	Dead from carcinoma	Lip well, Dead from intercurrent disease	Not traced full 5 years
Local recurrence—less than 1.5 cm.	24	23	96%	0	1	0
Extensive recurrence—more than 1.5 cm. ...	12	7	70.0%	3	1	1
Cases with metastatic nodes	18	2	13.3%	13	2	1
Total	54	32	66.6%	16	4*	2

The group of Table V includes any case which has recurred following previous removal elsewhere by whatever means, whether it was by surgery, irradiation, or cancer pastes. A comparison of the above tables reveals that a much less satisfactory result is obtained in the recurrent cases as a group than in the primary cases. They are always more difficult to manage, require more individualization, and are less likely to recover.

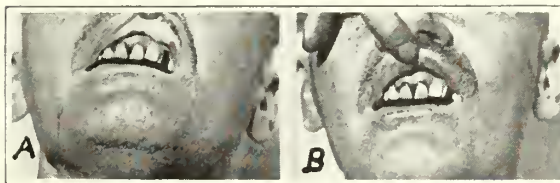


Fig. 4.—(A) Shows a man, age 55, referred on Sept. 30, 1919, with an epithelioma involving three-fourths of the inner surface of the lip, and showing no evidence of any lesion externally. This epithelioma was destroyed by electrocoagulation. The neighboring lymphatics were treated by irradiation.

(B) Shows the lesion healed, and it has remained well to date, approximately 14 years.

Those patients who died of intercurrent disease were not included in the statistics since 48 per cent of the patients were over age 60 and 19 per cent over age 70. It would obviously be grossly unfair to permit deaths from other causes at these ages adversely to influence the percentage of recoveries. Six cases which could not be traced the full five years were not included in the statistical analysis although the lip was well and there was no evidence of metastases when the patients were last seen at 6, 7, 12, 25, and 39 months, respectively.

An analysis of the cases which have remained well for more than 5 years is submitted since this is the generally accepted lapse of time after

* Not included in percentages.

which the patient may be considered well although we believe that if a patient has complete healing of the primary lesion with an absence or disappearance of palpable nodes he may be regarded as recovered. There were only 8 patients of this group that later developed carcinoma of the lip or metastasis to the glands after they were regarded as well and 3 of these were obviously new lesions developing at a new site years later. There were only 5 definite recurrences after the patient was regarded as well, which constituted less than 2 per cent of all cases.

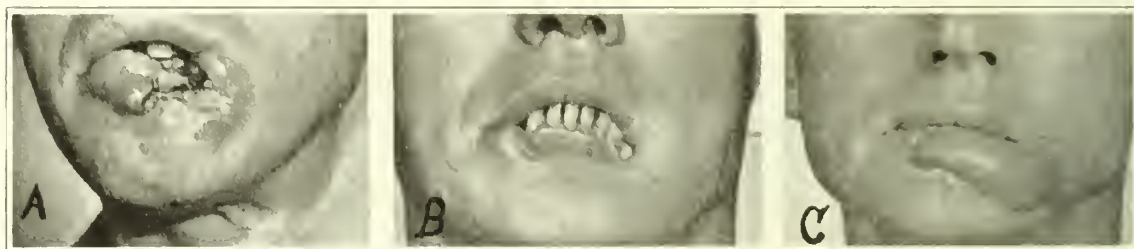


Fig. 5. (A) Shows a man, age 41, referred for treatment of recurrent carcinoma of the lower lip. This had been previously treated by radium, electrocoagulation, and roentgen rays, but had never been even healed. The recurrence is shown by extensive ulceration, and infiltration involving practically all the remainder of the lower lip, and extending down on to the anterior surface of the chin, associated with submaxillary glandular enlargement. Under radium and roentgen-ray treatment, and later destruction of a remnant by electro-

therapy to the lip and neck, through a mistake in directions to the patient.

The time between treatment and death in those cases terminating fatally was 20 months in the extensive lesions without palpable metastases; and was 14½ months in those with palpable metastases.

SUMMARY AND CONCLUSIONS

1. We have reviewed the technic and results of treatment in 275 cases of cancers of the lip.

coagulation, this was gotten entirely well. He has remained well to date, a little more than 5 years.

(B) Shows the patient well March 25, 1929. In July, 1931, he was referred to a surgeon for a plastic operation.

(C) Shows the result of this plastic operation to date. This required a transfer of a portion of the skin and subcutaneous tissue from the sternal region. Patient has now remained well a little more than 5 years and is able to work.

In the cases terminating fatally, the elapsed time between treatment and time of death is an interesting observation. Thus, of the 3 such cases in the local group, less than 1.5 cm. in diameter, occurred in 1 case in 3 months and may not have been due to the carcinoma primarily; death occurred in another case following the development of metastatic nodes 45 months later, and the other case developed a new lesion on the opposite side of the lip almost 8 years later and did not report for treatment until

2. Our operative procedures involve practically no pain and no hospitalization. Thereby, we eliminate the fear on the part of the patient, which commonly causes delay.

3. In the early cases we have obtained 96 per cent of 5-year cures.

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ABSTRACT OF DISCUSSION

FREDERICK JACOB (Pittsburgh): Dr. Pfahler gives an excellent demonstration of what Dr. Pusey said in his editorial in the *Archives of Dermatology and Syphilology* some time ago, in answer to a radiological paper on cancer. Dr. Pusey's statements were that a man who was well versed in the histology and clinical appearance of epithelioma of the skin, who knew how to handle his electric apparatus, and knew the benefits derived from roentgen ray could very well handle these lip cases and did not necessitate his having to be a registered radiologist. He could be a dermatologist just as well. The 98 per cent recovery is very excellent.

There was one point in the paper that struck me rather forcibly and that was the stressing of the size of the local lesion in the matter of cures. I have seen a number of lesions that were particularly insignificant, but histologically showed the undifferentiated variety of tumor. These cases even with a complete destruction of this insignificant erosion on the lip, often will go on to fatality in spite of very intensive roentgen-ray treatment to gland-bearing areas, whereas some other cases

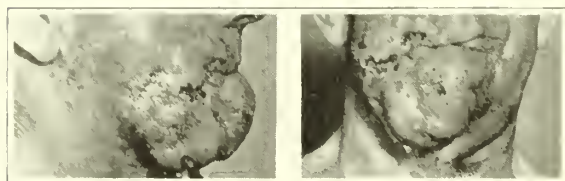


Fig. 6.—Patient, age 55, with extensive carcinoma of the lip beginning 2 years previously as a "fever blister," was treated by a quack with a cancer paste. No treatment given by us.

after metastasis had occurred. It is a very interesting and important point to remember that the only patient who really died as a result of later metastasis in this group of 154 early cases was one in whom destruction of the primary carcinoma was not followed by the routine roentgen

that are found on the lip, particularly large cystic ones, are much less dangerous to life than smaller rapidly metastasizing ones.

The roentgen ray and histologic examinations were stressed and are important. It is of little value in a definitely basal cell type to bother with the roentgen

ray except on the local area. The roentgen ray of the glands is unnecessary, whereas in these other varieties of cancer in which they rapidly metastasize, the application of the roentgen ray, very soon after the removal of the lesion, to the gland-bearing areas is of the utmost importance in the life of the patient.

CONSERVATIVE TREATMENT IN PERFORATING WOUNDS OF THE EYEBALL*

SOLON L. RHODE, M.D., READING, PA.

Traumatic perforations of the globe are always serious conditions; and in their management one should keep constantly in mind the grave eventualities possible.

A solution of continuity of the wall of the eyeball produces first a mechanical effect, as exemplified by the escape of aqueous or vitreous, prolapse of iris or ciliary body; second, a biologic effect, as seen in the accompanying hyperemia with the outpouring of fibrinous exudate and leukocytes, and the reparative processes consequent to such reactions. Following this constant routine of sequences we have the frequently occurring complications, as retention of foreign bodies within the eye, iridocyclitis, septic endophthalmitis (Fuchs), sympathetic ophthalmia, and as later manifestations, traumatic cataract, secondary glaucoma, and detachment of the retina.

Various types of foreign body have a tendency to produce a more or less distinct reaction. Iron, steel, or copper is prone to call forth a localized purulent inflammation; lead, glass, or stone seems to stimulate the production of granulation tissue; wood or other organic matter apparently has the property of evoking cellular elements which attempt its solution. Sterile metallic foreign bodies retained in the vitreous over a long period also show the effects of a slow disintegration by some gradual solvent action, with consequent staining (siderosis) of some adjacent ocular tissues.

The structures of the eye show different degrees of tolerance for foreign bodies. The lens is most tolerant, in which tissue no inflammatory reaction seems to result. Numerous cases are seen in which the lens has harbored a foreign body for years. Yet any of these eyes may go on to cyclitic irritation, given some exciting cause. The vitreous also is very tolerant, as is demonstrated in those instances in which the vitreous opacities have diminished and visual acuity has improved with the foreign body still in situ. The uveal tract is much less tolerant, and

here invariably are intense reactions with a predisposition toward sympathetic involvement of the other eye.

Traumatic iridocyclitis is in reality a part or phase of septic endophthalmitis.

Traumatic septic endophthalmitis is hardly to be distinguished early from the reactions present in the ordinary healing of a perforating wound. There are the same conjunctival and ciliary injection, hyperemia of the iris, photophobia, and even slight exudation. As the wound repairs, these signs gradually disappear, and in 2 or 3 weeks the eye has become quiet. If the process lasts for many weeks and the exudates are not absorbed but are organized into scar tissue forming synechiae; if the anterior chamber becomes deep or assumes an unevenness in its depth because of the traction of contracting bands of connective tissue on the posterior surface of the lens; if the scar of the wound is pulled sharply inward, and the eyeball becomes decidedly soft; if light perception and projection grow progressively less, septic endophthalmitis has definitely set in. The frank cases of this condition can be diagnosed early because of the intensity of its various phases: Copious secretion with the formation of a thick pus about the third or fourth day, chemosis of the conjunctiva which may be so marked as to produce protrusion between the lids, marked redness and swelling of the latter, and great pain. The aqueous is cloudy if the process is in the anterior segment; the vitreous has the appearance of the presence of a yellowish-white mass of pus if the suppuration is in the posterior chamber (panophthalmitis). The amount of pus increases, with the raising of intra-ocular pressure, until there is a breaking through externally, either *via* the original wound or *via* a new pathway, whereupon the pain becomes less and the other acute signs decrease in intensity, the globe shrinking rapidly with the production of phthisis bulbi.

These patients should be hospitalized. An injection of 1500 units of antitetanic serum is given immediately. The wound is cleansed of all foreign particles, the anterior chamber being

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irrigated with normal salt solution, if that area has been opened and there are floating foreign bodies present. Prolapse of iris is replaced if possible, or iridectomy done. Protrusions of ciliary body or vitreous are best treated by replacement, although the cutting off a bead of incarcerated vitreous is at times unavoidable. If the wound is of such extent that the extruded ciliary body cannot be replaced, the eye is undoubtedly doomed, for surgery here seems to be of no avail. Mercurochrome, 2 per cent, is applied to the area, and the edges of the wound approximated with sutures unless the shelving character of the latter keeps them in good apposition, in which case a conjunctival flap is thrown over it. Roentgenograms of the orbit are made to determine the presence of radiopaque foreign body, and for its localization. Immediate attempt at removal is made, using the magnet if foreign body is magnetic, or following the ingenious method of Cross if it is nonmagnetic. The patient is put at absolute rest in bed. Atropine (8 grains to 1 fluid ounce), dionin 5 per cent, mercurochrome 2 per cent, and hot compresses are used locally. Large doses of sodium salicylate, by mouth or intravenously; or mercury cyanide intravenously; or blue mass by inunction are given. Sodium salicylate has shown itself to be the most effective single therapeutic agent, the dosage being 60 to 90 grains a day unless evidences of intolerance of the drug supervene. Sweats are resorted to. If there is any suggestion of suppuration, intramuscular injections of unpasteurized whole milk, boiled 4 minutes, are given every day or second day, until a marked general reaction ensues. (Six to 9 c. c. are utilized.) We have found this much better than the use of the proprietary preparations of foreign protein. Another procedure of undoubted value is the subconjunctival injection of cyanide of mercury (12 minims of a 1:6000 solution). The patient should be well fed with a highly nourishing and easily assimilable diet, the appetite being stimulated by the use of tonics.

In spite of all these prophylactic and curative measures which may seem to be causing a gradual and progressive recovery, sympathetic ophthalmia constantly lurks in the background. Comparatively easy as is the diagnosis of the condition on tissue examined in the laboratory under the microscope, just so difficult is its detection clinically. The signs and symptoms may be no more than those enumerated; but usually the process in the iris is seen to be more marked. There are greater swelling of the stroma, intense vascularization, with the formation of nodular areas resembling somewhat those of tuberculosis and syphilis. Further is seen the

early appearance of a pupillary membrane with its frequent seclusion and occlusion effect, and a short period of hypertension rapidly followed by hypotony. Under such circumstances there is a strong suspicion that sympathetic irritation of the other eye is present, which is attested by slight circumcorneal injection, increase in the cellular content of the aqueous making the beam of the slit-lamp visible, impairment of accommodation, tenderness, and some photophobia. Frank sympathetic inflammation, whether following this irritative stage or coming on without such warning, is a reënactment of the chain of symptoms observed in the injured organ, albeit frequently more fulminating.

In view of the fact that sympathetic disease once established, enucleation of the wounded eye is usually useless in arresting the progressively destructive changes leading to blindness in its fellow, are we justified in assuming a conservative attitude in the handling of perforating ocular injuries, especially in those instances in which there is involvement of the ciliary region? A scanning of the literature brings to light great diversity of opinion on this subject, with the earlier and more seasoned ophthalmologists in favor of early removal of the eye, as advocated by Augustin Prichard in 1851. Fuchs felt that it is better to enucleate 20 eyes having sympathetic potentialities than to allow one to remain which becomes in fact the cause of this condition. He, however, referred to eyes that had turned functionally useless.

Faced by the possible advent of this scourge, we are very prone to follow the line of least resistance—enucleation. But are we serving the best interests of the unfortunate patient by exacting the very high price of the loss of an eye? The conscientious ophthalmologist does not sacrifice an eye before having exhausted every possible efficient means of saving it. Revised diagnoses, based on microscopic study of sections of enucleated eyes, expose the serious mistakes often made.

Turning toward the conservative side, factors which may encourage our stand for such conservatism are:

(1) Statistics of Dvorak-Theobald show that the greatest frequency of sympathetic cases occurs in the first decade of life. Furthermore, these statistics point out that sympathetic ophthalmia has been actually much less frequent than the enucleations which were done to avoid it. In the discussion of this contribution, Camp and Greenwood emphasized the rarity of the condition which varied from 1 to 2 per cent in the older ophthalmic literature to 0.5 per cent in the Theobald series.

(2) The intracutaneous test of Alan Wood for the presence of hypersensitivity to uveal pigment appears sensitive enough to detect an early case of sympathetic ophthalmitis to be of definite diagnostic value. Gifford in two cases and Verhoeff in one case, however, found the test negative. Gill, on the other hand, used it extensively in sympathetic disease, and found it uniformly positive in true cases and negative in other conditions.

(3) The use of the slit-lamp which renders detection of sympathetic irritation possible very early.

(4) The experiences of active ophthalmologists who, through the patient's lack of consent to operation, were compelled to treat cases of potential sympathetic ophthalmia medically, have enabled us to accumulate statistical data pertaining to the interval between time of injury and onset of the condition, finally necessitating enucleation. The latter covered the wide range of 3 weeks to 41 years, as stated by Samuels. In the majority of cases, however, in which the date of injury was given, the eye was removed within the first 2 or 3 months following it. Wurdemann cites a case of 58 years' duration.

(5) The early use of vaccines, serums, and nonspecific proteins which has apparently been of material aid in decreasing the incidence of the condition.

(6) The therapeutic use of emulsions of uveal pigment for the desensitization of patients showing this form of allergy has been another valuable procedure in our armamentarium, though in its use exact dosage is of prime importance to prevent harmful reactions at the site of disease.

(7) The employment of injections of blood or blood serum utilizing (a) the patient's own blood; (b) blood from a patient cured of sympathetic ophthalmia; or (c) blood from an individual who has recovered normally from a grave eye injury. Vázquez Barriere, of Montevideo, in 1931, was probably the first to suggest the use of the latter. Because of his excellent results with hemotherapy he feels that this form of treatment will play a great rôle in the future successful management of sympathetic disease.

These factors have been largely instrumental for the new note that has crept into the literature, carrying a strong plea for more conservative medical treatment of penetrating ocular lesions.

The purpose of this paper is to provoke a discussion of the value of and the justification for a change in the mode of treatment of this type of eye injury.

My limited experience in handling this type of ocular lesion, the few cases presented herein, the comparatively short period of observation of the patients, hardly justify a definite conclusion, but they offer some pertinent food for thought.

CONCLUSIONS

A plea for a more conservative approach to perforating ocular injuries is made, based on the following:

1. Comparative rarity of true cases of sympathetic ophthalmia.

2. The fairly sensitive intracutaneous test for hypersusceptibility to uveal pigment, enabling us to uncover the onset of sympathetic disease at an early stage and thus combat it more successfully.

3. The slit-lamp with its definite aid to early diagnosis.

4. Our greater clinical knowledge of sympathetic irritation, frequently the precursor of sympathetic inflammation.

5. More efficient therapeutic measures: (a) Emulsions of uveal pigments; (b) vaccines, serums, and nonspecific proteins; (c) hemotherapy.

6. The occasional experience, acquired under compulsion, in which medical treatment has produced most satisfactory results.

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ABSTRACT OF DISCUSSION

EDWARD STIEREN (Pittsburgh): Upon us rests the responsibility of preventing blindness and restoring eyes to some degree of usefulness. We are at times amazed at the recuperative powers of eyes which have suffered such severe injury that the first prognosis seems undoubtedly to be hopeless, to have such eyes gradually quiet down and in time regain useful vision. On the other hand, apparently trivial injuries, such as the lodgment of a piece of coal or metal on the cornea, may end in panophthalmitis with loss of vision.

Upon the conservative first treatment in many instances depends the final integrity of an injured eye. Too much should not be attempted in a surgical way to a traumatized eye. Sound surgical precepts should be followed, the site of the injury cleansed of all foreign matter, the wound freed of all tissue to promote smooth healing, and the edges of the wound properly coaptated. Foreign bodies within the globe should be removed only after expert roentgen-ray localization has revealed their site and we have the localization chart before us.

Complications, such as traumatic cataract, unless rapid swelling of the lens provokes increased tension, should be dealt with after the injured eye has recovered from its initial shock. Not infrequently, especially in the young, traumatic cataracts will undergo spontaneous absorption leaving only a membrane to be needed. Very little manipulation of the globe should be indulged in; the natural recuperative powers of the eye should be augmented by local and systemic measures.

It has been my custom to inject from 1 to 2 c.c. of normal salt solution under the conjunctiva at conclusion of the repair of the injury, to fill the conjunctival sac with 1:3000 bichloride of mercury ointment, and bandage the eye; in extensive injuries to the globe, both eyes. At the same time 1500 units of tetanus antitoxin subcutaneously is used and the patient kept quiet in bed. Subsequent local and general treatment is a matter of from day to day progress.

Should inflammatory and infectious phenomena develop and progress, measures to increase bodily resistance are used, preferably nonspecific proteins and vaccines. The late Dr. Gifford's method of using massive doses of salicylates undoubtedly saved many eyes, but those of you who obtain good and often brilliant results from foreign protein and vaccine therapy would scarcely depend on salicylates alone.

In my cases the best results have been obtained in inflammatory and infectious conditions of the globe by the use of triple typhoid vaccine intravenously. This agent is easy to administer; dosage can be accurately controlled; and there is lessened danger of creating serum sickness. The best results are obtained if a severe physical shock results, as evinced by a distinct chill and a rise in temperature to 101° F. or higher. As an initial dose, 20 million dead bacteria are given which, if not followed by the reaction desired, is repeated in 24 hours by an injection of from 40 to 50 million.

Contrary to Dr. Rhode's observation, I have found the use of milk to be disappointing and am in accord with Alan Woods who, in his book, *Allergy and Immunity in Ophthalmology*, states: "It is a matter of common observation that the general and local reactions following injections of milk are irregular and impossible to foretell. The reactions following milk injections are less than those following other commonly used proteins. The consensus of opinion appears to be that milk is the most favorable agent in gonococcus and other bacterial infections of the conjunctiva. It does not appear to be of equal value in deeper inflammatory conditions of the eye, and the reaction produced is somewhat uncertain."

Trivial injuries to eyes sometimes are followed by stubborn, progressive inflammations which will not yield to ordinary treatment. Such should be searched for focal infections (most commonly apical abscesses and diseased tonsils) and not infrequently, after these are eradicated, the eyes will respond to treatment. These patients are often undernourished, as are many foreigners working in coal mines, and should be given a general tonic and well balanced, nourishing food.

Sympathetic ophthalmia has become a rare disease through the use of nonspecific proteins, vaccines, and uveal pigment injections. Since beginning the use of tetanus antitoxin in all cases of wounds of the eyeball, 25 years ago, I have not had a case.

Greenwood, in his discussion of Dr. Dvorak-Theobald's paper, said that all reports of injured eyes in the American Expeditionary Force came to him, and with only one case of sympathetic ophthalmia he wonders why, with the thousands of penetrating wounds of the ciliary body, that this was so. The answer is that every injured soldier received an immunizing dose of tetanus antitoxin which, being a foreign protein, acted as a prophylactic against the development of sympathetic ophthalmia.

This paper of Dr. Theobald's also makes the point that sympathetic ophthalmia cannot be positively diagnosed by clinical signs alone. A positive diagnosis is possible

only by histologic examination. In the eyeballs examined by her only 50 per cent were found to be positive.

Many cases diagnosed sympathetic ophthalmia were instances of double serous uveitis having as an underlying cause some focal infection. If one eye is injured the other becomes susceptible, probably pigment sensitive according to Alan Woods and others, and is fertile soil for the development of a uveitis from the systemic infection.

LUTHER C. PETER (Philadelphia): Two aspects of this subject which I should like to touch upon are: The possibility of retinal detachment following a perforating wound of the sclera. The high-frequency current, recently being used by ophthalmologists, has added much to the equipment, and in some of these cases of perforating wounds of the sclera if there is a possibility of retinal detachment following (although in my experience retinal detachment is more apt to follow from blows of the sclera than from perforating wounds), a barrage of coagulation punctures can be laid down around the wound, particularly with the Walker needles. The operation is simple and these needles can be placed around this opening without difficulty. It is not always necessary to lay down a barrage of the needles themselves; one can use an electrode and cauterize the sclera, because it is the wound in the sclera which we expect to bring about in order that the retina may become adherent to that particular area.

The other aspect is sympathetic ophthalmia. It is a serious problem and a great responsibility to the physician in charge to decide whether or not an eye shall be enucleated after a serious injury. It is even a greater responsibility to the consultant. Dr. Rhode has outlined the scientific measures which we can use to prevent the development of sympathetic ophthalmia. If the prospects of the eye are such that it will not be a good-looking and useful eye, it is unwise to try to save it, notwithstanding the request of the patient to save the eye at all hazards. The responsibility is not the patient's. During the past few years we have grown more tolerant and conservative in methods of handling perforating wounds, and are justified in trying to save many of these patients' eyes, because they can be saved in many instances. If the eye is not going to be, cosmetically, a good-looking eye, and if the vision will be much reduced, it is a safe policy to sacrifice the eye. One feels better so to decide if the responsibility is his.

W. I. LILLIE (Philadelphia): Early recognition of beginning sympathetic ophthalmia, before any changes as noted by the slit-lamp are visible, is important. In a few cases following perforating injury, the first sign of what we thought was perhaps beginning sympathetic ophthalmia was recession of the near point in the good eye. This is before photophobia, lacrimation, or other very early signs occur. If one will measure the near point of the good eye early and then keep track of that it is a good sign.

So far as therapy is concerned, best results have been from intravenous typhoid vaccine. It is well retained and can be given for any length of time, whereas after 3 or 4 injections of milk the efficiency of the foreign protein is done. The earliest sign of sympathetic ophthalmia will be recession of the near point of the good eye.

DR. RHODE (in closing): I agree with Dr. Lillie that sometimes the only thing that will lead one to believe sympathetic irritation or inflammation is going to take place is the impairment of accommodation.

PAROXYSMAL HEMOGLOBINURIA *

Report of Two Cases

HERBERT T. KELLY, M.D., PHILADELPHIA

Swineford¹ defines paroxysmal hemoglobinuria as "A rare manifestation of late congenital and acquired syphilis. It is characterized by the presence in the blood plasma of an autohemolysin. This autohemolysin may, when the patient is exposed to cold, hemolyze enough blood cells to produce transient hemoglobinemia, hemoglobinuria, secondary anemia, evidences of altered bile metabolism, and a typical group of symptoms."

HISTORY

Charles Stewart is usually credited with the first description (which is not considered a good one); however, Dressler, in 1854, gave the first accurate description of the disease, which he designated as "intermittent albuminuria and chromaturia."

Chvostek, in 1894, gave an admirable review of the literature, and suggested the presence of syphilis as an etiologic factor. Vasomotor disturbances were noted and carefully studied. Donath and Landsteiner, between 1904 and 1908, reported the first extensive studies on the blood in vitro, and proved the presence of a hemolysin which circulates in the plasma of patients with this disease, and which attaches itself to the red cells when the blood is chilled.

Within the past 10 years, the use of the Wassermann reaction has further confirmed syphilis as the etiologic factor.

Paroxysmal hemoglobinuria should not be confused with hematuria from any cause; hematuria from sulphonal poisoning, nor with hemoglobinuria from other causes, such as malaria and bacillary fevers.

INCIDENCE AND ETIOLOGY

Paroxysmal hemoglobinuria is a rare disease. There are perhaps less than 300 cases on record. It is generally accepted that true paroxysmal hemoglobinuria occurs only in syphilitics. Typically, it is a manifestation of late congenital and acquired syphilis. In congenital cases, it rarely appears before the fourth or fifth year; in acquired cases, it occurs most frequently between age 20 and 50. Males are about 3 times as prone to the disease as females, a ratio corresponding to the incidence of syphilis. It is peculiar to no race, but occurs most frequently among persons living in the temperate zone. Two important

factors influence its occurrence: (1) Very inadequate antisyphilitic treatment, or no treatment at all; and (2) exposure to temperature low enough to initiate paroxysms. With the present methods of diagnosis and treatment of syphilis, this unusual manifestation is likely to become even rarer in the future than in the past.

CLINICAL MANIFESTATIONS

This rather unique disease distinguishes itself by a very characteristic set of symptoms. The following cases demonstrate the typical and salient features:

Case No. 2000: White, female; age 33; came under my observation November, 1929. Family history, negative. Past history: In 1917, attack of pain in right lower abdomen. A diagnosis of acute appendicitis was made and an appendectomy was done in 2 hours; recovery was uneventful. Similar type of pain occurred again in 3 months; no operation was performed. In 1920 and 1928, developed right maxillary sinusitis which was cleared up by local treatment.

Present illness: Jan. 1, 1929, following exposure to cold, patient experienced severe pain in left renal region, without radiation, followed by burgundy colored urine, nausea, vomiting, anorexia. Since this attack, the patient noticed that whenever she became chilled, her hands, feet, face, and ears became blanched and a general chilly feeling ensued. These symptoms were followed by occipital encephalgia, nausea, and vomiting; dull to severe pains in the legs; at times requiring one-half grain codeine for relief. Frequently, within 15 to 30 minutes after the onset, the patient noticed urgency and frequency of urination. The urine varied in color from a light to deep burgundy color.

During the summer of 1929, 1930, and 1931, the patient was free from symptoms, but in November of each year including 1932, symptoms reappeared and persisted throughout the winter. Recently she is able to predict an attack of hemoglobinuria by the occurrence of a chilly sensation, occipital encephalgia, and aching in legs. Individual attacks recently were followed by an elevation in temperature from 99 to 100° F. for 12 hours, but following the paroxysm she feels as well as before.

Physical examination: During and following an attack, the physical examination shows marked pallor, and slight icterus of the skin and sclera. No evidence of congenital syphilis or demonstrable tenderness over left lumbar region on fist percussion; no skin lesions. Later examination during an interval free from attacks revealed the absence of pallor and icterus.

Laboratory findings: The blood Wassermann test, on 3 occasions, was negative; Donath and Landsteiner tests were positive; red blood count, 3,250,000; hemoglobin, 65 per cent; the stained blood smear showed achromic red cells with slight changes in shape and size; platelets, 260,000; white blood count, 5000. Urine is dark burgundy in color, numerous hematin crystals, with no evidence of red blood cells or albumin.

Roentgenograms of genito-urinary tract are negative. The gallbladder drainage reveals the presence of many

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pus cells; bile stained; cholesterol and calcium bilirubin crystals; positive B. coli culture. Gastro-intestinal roentgen studies normal; cholecystography showed a sluggish gallbladder function.

Treatment consisted of the following: Nonsurgical gallbladder drainage weekly for 8 months, then bi-weekly for 6 months; autogenous vaccine; 0.3 to 0.45 gram neosarsphenamine weekly for 3 months with considerable improvement.

The next case illustrates more pronounced peripheral disturbances.

Case No. 98587: Colored female, age 10; came under observation April 4, 1932. Family history: Father, age 32, living and well; no history of venereal infection. Mother, age 27, three pregnancies, 2 normal births, 1 abortion; being treated for syphilis; one child died of pneumonia at age of 18 months. Past history: Full term normal delivery; normal skin; no snuffles; erysipelas at age 4 years; otherwise relatively healthy.

Present illness: In the fall of 1931, patient apparently was in good health when passed urine dark reddish brown in color; about a month later, swelling around eyes, and in another month, paresthesia, swelling, and purplish discoloration of hands and feet. The attacks were always preceded by exposure to cold. Appetite good until 6 days ago, when placed on diet eliminating red meats and highly seasoned foods.

Physical examination: Slight puffiness of lower eyelids; swelling and purplish discoloration of posterior surfaces of hands; otherwise physical examination reveals a healthy condition.

Laboratory findings: The blood Wassermann test is strongly positive; Kahn, weakly positive; Donath and Landsteiner, positive; red cell count, 3,791,000; hemoglobin, 42 per cent; white blood count, 5300. Urine: A dark burgundy color without demonstrable red blood cells and albumin, followed the intermittently dipping of the feet for a period of 15 minutes into ice water.

The symptoms here exemplified may be divided into: Prodromal, paroxysmal, and post-paroxysmal.

The *prodromal* symptoms are systemic and peripheral. They appear from a few minutes to 8 hours after exposure. The typical systemic symptoms are chilliness, encephalalgia, malaise, and aching pains in the loins, legs, and abdomen; more rarely, nausea, vomiting, a desire to yawn, dizziness, and visual disturbances are noted. The peripheral symptoms appear to be vasomotor; they may be distinguishable from those of Raynaud's disease, with paresthesia and either pallor or cyanosis of the tips of the extremities. The face, lips, ears, and nose may be similarly involved. There may be local edema, urticaria, erythematous blotches, or rarely, purpuric patches, gangrenous in appearance. The prodromal stage is generally of short duration; within a few minutes the symptoms become more pronounced and the actual attacks occur. The patient is now eager for warmth and if he cannot get it, all symptoms become intensified to be termed paroxysmal.

The *paroxysm* is usually preceded by a chill. The temperature averages from 98° F. to 101° F. The systemic and vasomotor symptoms become more and marked. The systolic and diastolic blood pressure may be elevated 50 to 100 mm. of mercury; within about 30 minutes there will probably be an urgent desire to void. This urine which contains free hemoglobin, will be dark red, reddish brown, or almost black. Almost invariably it is because of this dark urine that the patient consults a physician.

The duration of the paroxysm is usually from 2 to 4 hours though occasionally for 24 hours or for 5 days, as in the first case. The patient will ordinarily void the dark urine only in the first or first 2 specimens after the chill, as in the second case. Unusual findings are: Urinary frequency, dysuria, oliguria, dyspnea, or palpitation.

The *postparoxysmal* symptoms are usually lassitude and weakness. In many cases there is a slight demonstrable jaundice due to the rapid transformation of the free hemoglobin into bile pigments. Recovery from an attack is rapid and there are no symptoms between attacks.

CLINICAL PATHOLOGY

As expected, the more important laboratory findings are in the urine and in the blood. Urine between attacks is normal; during a paroxysm, deep red urine, caused by methemoglobin, oxyhemoglobin, and partly by hematin, is the characteristic finding. These substances give specific absorption bands with the spectroscope.

The autohemolysin is the factor which distinguishes paroxysmal hemoglobinuria from all other diseases. It differs from all other known hemolytic agencies. The most acceptable theory explaining its presence is that the autohemolysin is one of the antibodies or immune bodies produced in response to the antigens liberated from the spirochetes and/or the syphilitic organs.

Experimental work during the past 30 years has resulted in much information concerning the autohemolysin. Some of this is summarized:

1. The autohemolysin is found only in syphilitics.
2. Its presence can be demonstrated in vitro by the simple Donath-Landsteiner test.
3. It is *normally* found in the sera or plasma and not in or attached to the cells.
4. It differs from other hemolysin amboceptors or immune bodies in that the hemolysis takes place only in the cold. Room temperature, however, may be sufficiently cold to promote this union.
5. The autohemolysin is not the same syphilitic immune body which absorbs complement in the Wassermann reaction. In other words, serum or plasma from which all the autohemolysin has been absorbed by erythrocytes in the cold, will still give a strongly positive Wassermann.

With the above information in mind, a paroxysmal hemoglobinuria may be somewhat simply explained as follows: When the patient becomes chilled, there is a union between autohemolysin, erythrocytes, and complement in the peripheral capillaries. When this hemolytic system is carried back into the warmer visceral circulation, hemolysis takes place, producing hemoglobinemias. If the hemoglobinemia is sufficiently marked, much of the hemoglobin will be excreted by the kidneys as such, hence hemoglobinuria.

DIAGNOSIS

The diagnosis of paroxysmal hemoglobinuria as contrasted with other hemoglobinurias listed above, rests upon the following points:

1. A history of paroxysmal passage of dark red urine following exposure to cold, together with the characteristic prodromal signs, paroxysmal, and post-paroxysmal symptoms.
2. The demonstration of free hemoglobin in the urine during the attack.
3. Absence of hemoglobinuria between attacks.
4. A positive Wassermann test or other diagnostic evidence of late syphilis.
5. The demonstration of the autohemolysin by the Donath-Landsteiner test.
6. The artificial production of an attack by the Rosenback or Embret tests.

PROGNOSIS

Paroxysmal hemoglobinuria is not considered fatal, although there is a report of one death during an attack. The attacks, however, may be

sufficiently frequent and severe to produce severe secondary anemia. Antisyphilitic therapy usually controls the attacks. There has been no authenticated spontaneous recoveries.

TREATMENT

It is generally believed that a cure can be obtained by vigorous and prolonged antisyphilitic therapy with arsphenamine, iodides, mercury, and bismuth. Protecting the patient from cold is an important prophylaxis against individual attacks. It has been reported that during treatment the clinical manifestations cease, the Wassermann reaction becomes negative, and the autohemolysin disappears from the serum, in the order named.

SUMMARY

A review of the literature indicates that hemoglobinuria is a comparatively rare clinical entity, there being less than 300 cases reported.

The first case had been the subject of urologic investigation for one year before its true nature was determined; the second case resembled acute nephritis and was treated as such for 3 months before the patient's admission to the hospital. Both patients responded satisfactorily to antisyphilitic treatment.

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MASTOIDITIS*

Its Logical Treatment

LEWIS T. BUCKMAN, M.D., WILKES-BARRE, PA.

The logical treatment of mastoiditis is surgical. The question today is not so much how to operate as when to operate. That even otologists are at fault in their appreciation of the surgical indications and of the importance of prompt interference is evidenced by the implied scolding by Sir Charles Ballance in his scholarly digest of the historical aspect of the mastoid operation.

The modern mastoid operation is so based on a well established technic that the long years of darkness centering around the single perforation of the cortex with drill, the Wilde incision, and other cautious makeshifts, today seem incomprehensible. It was only as recently as 1895, forty-two years after the publication of Wilde's book in 1853, that my preceptor, the late Dr. Lewis

H. Taylor, strongly advocated the Wilde incision in his address in otology before this Society. It is scarcely conceivable that a surgical measure which had its foundation upon such frail anatomic and surgical supports should have enjoyed the distinction of a vogue so popular and prolonged as the Wilde incision. It is to Dr. Taylor's credit that 4 years later, in 1899, he went before his county society and "decidedly repudiated" his former advocacy of the Wilde incision.

Today the surgical treatment is an accepted procedure. The fault of both otologists and others lies in when to do it. More and more our pediatricians, and others than accepted otologists, perform paracentesis of the tympanum and from this point keep under their care cases of middle ear and mastoid infection through the

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most important period from the diagnostic standpoint.

Our understanding today of mastoiditis differs from the accepted picture of the old textbooks and teaching. Acute mastoiditis is an infection of the mastoid process of the temporal bone, and usually of the tympanum, marked by inflammatory changes in the mucosa and tunica propria, with or without destruction of bone, with or without extension to or involvement of adjacent structures. Mastoiditis may occur without swelling, destruction of bone, or tenderness, but usually not without otorrhea and sepsis.

The classical coalescent type occurs in which there is destruction of bone and extension by reason of this destruction produced not by the type of invading organism, but by pressure of contained purulent or exudative fluid.

The hemorrhagic type is not accompanied by destruction of bone; the swelling of the mucosa is hemorrhagic, not the gelatinous edema of the coalescent type. Its course is usually stormy, the patient quite prostrated. There are usually fever and tenderness. Complications are prone to occur by thrombotic invasion through the smaller vessels, not by advancement of bone necrosis as in the coalescent type. In the less stormy and less dangerous coalescent type, weeks may elapse before operative interference is undertaken. This is probably the type of the older writers who established the dictum that an otorrhea of less than 6 weeks' standing is not due to mastoiditis, but that after such arbitrary period of 6 weeks, it establishes itself as due to a mastoiditis. Bone destruction in the coalescent type ceases as soon as drainage is established through the mastoid cortex, whether by spontaneous perforation or by operation. Spontaneous resolution probably never occurs in the hemorrhagic type. To attempt to establish an arbitrary limit of safety in weeks during which the otorrhea of a hemorrhagic mastoiditis may be left without interference, is not based on a conception of the pathologic processes, and courts disaster through failure to eradicate the diseased process. A case of hemorrhagic mastoiditis in the hands of one not cognizant of these differences, is in dangerous hands. There is nothing in the appearance of the tympanum before incision or after rupture, in the character of the discharge or type of organism present, to indicate the process of the disease in the middle ear and temporal bone. Disease of the middle ear and mastoid should be under the observation of one who has seen and studied these changes under his own hands and eyes on the operating table and who appreciates differences in the types of temporal bones and their changing

moods. Such a one is not the pediatrician nor the family physician.

The pneumatized temporal bone usually proceeds to coalescence. The sclerotic type cannot, and usually then presents the hemorrhagic type of invasion. The diploic type rarely coalesces and usually is the seat of hemorrhagic invasion and prone to lead to septic invasion and metastatic lesions. These differences in the types of temporal bones and differences in the development of the diseased process must be understood for an intelligent appreciation and handling of mastoiditis.

McMahon has shown that extension of infection from the eustachian tube and middle ear by way of the vessels and substance of the subepithelial areolar tissue is much more probable than by direct extension by way of the mastoid air cells alone. There being no ciliary mechanism for driving pus and bacteria backward and upward into the antral and mastoid cells beyond the ciliated area of the lower portion of the middle ear, progress must be along the blood and lymph streams of the tunica propria. The infection is carried into the bone in like manner, since the capillaries extend directly into it from the tunica propria.

Certain diagnostic criteria have been established to determine the involvement or noninvolvement of the mastoid process in middle ear suppuration. Some of these criteria are less emphasized today than formerly, because of increasing clinical experience and more exact methods of study. The type of temporal bone present, the clinical observation of the progress of the case, and the reaction of the patient, are of more value than mechanical laboratory procedures. This depends on one's "clinical hunch," which might be called the "priceless ingredient" of the surgeon's armamentarium.

BLOOD STUDIES

Leukocytosis indicates infection, but not all infections produce leukocytosis. The usual white count in simple mastoiditis will be 10,000 to 14,000. Higher counts often indicate complicating factors, a lack of localization, or marked body reaction. I have seen coalescent mastoiditis of 6 weeks' duration with complete breaking down of all the cellular elements to produce one massive mastoid abscess and a profuse otorrhea, show a count of only 8800.

The total white count and polymorphonuclear percentage do not always indicate the severity of infection and the patient's resistance. A blood count often helps make up the mind of the family and attending physician, but the otologist should not need a white count to tell him he is dealing

with mastoiditis. Of more value is the differential determination of the presence of immature neutrophilic leukocytes according to the Schilling classification. The numerical relation of these cells from day to day gives an accurate indication of the trend of the toxemia and throws light on the prognosis.

Alden and DeMotte consider the most valuable aid of the hemogram to be in the recognition of major complications and as a prognostic aid. The postoperative observation of the hemogram is often a better index of latent abscesses and extension of thrombus than are the temperature and pulse.

A study of the hemoglobin and red cell count is of aid if the infection is associated with a bacteremia, namely, sinus thrombosis and meningitis, in which event a fall in coloring matter and number of red cells indicates a hemolyzing organism. The otologist should be capable of making his own observations of these more rudimentary blood stream phenomena.

ROENTGEN-RAY EXAMINATION

The films should be studied by the otologist himself. Kopetsky before this section last year emphasized the use of the roentgen-ray examination in determining early the type of temporal bone presented by any case in question. It has long been a question with me whether the roentgen-ray examination was of any use at all in otitic infections. Certainly it has been a haven of uncertain refuge to the family and attending physician, but to the otologist who bases more on his own observation and clinical sense, the diagnostic help of this examination is limited. The idea of determining early the type of mastoid process involved was a new one to me, and I can readily appreciate the value of such an examination. Armed with early information whether the mastoid is pneumatized, sclerotic, or diploic, the observer is in stronger position to anticipate the development and outcome of the infection.

EXTERNAL EXAMINATION

We now know the emphasis laid in earlier years on swelling and tenderness to have been misapplied. Given time, a case of coalescent mastoiditis with intact and resistant inner table will progress externally and produce at some time tenderness and almost certainly swelling, criteria which are demanded by some to make up the picture of mastoiditis and the need for operation. Other processes are taking place, however, in the hemorrhagic type of infection of a sclerotic mastoid, and to wait for swelling here is dangerous. Usually middle ear disease alone

will show tenderness on deep pressure just back of the tympanum, but the tenderness significant of mastoiditis should not require deep pressure.

Of much more importance are the appearance and reaction of the patient, the type and quantity of discharge, the temperature chart, and progress of the case, and the clinical hunch of the attending otologist. A profuse discharge associated with sepsis in a very ill patient, is often indication enough for operative interference. A discharge that reappears shortly after wiping or aspirating the canal clear is strongly suggestive of mastoid involvement especially if the reappearance is induced by pressure over the soft parts below the ear.

THE FAMILY AND CONSULTANT

There is an almost universal fear on the part of lay persons, a fear of the mastoid operation. In any community the fatal and unfortunate cases of generations back are remembered, perhaps more so than the fatal cases of abdominal catastrophies, of cardiac tragedies, of pneumonias, and cancers. The increasing hundreds of successful cases happily brought to a successful conclusion, are not yet potent enough to eradicate the memory of tragedies and the fear that each case may prove fatal. It is perhaps the heritage of the days of the Wilde incision, of through and through syringing, of incomplete operations with persistent discharge, that has left in the minds of the people a picture of tediously prolonged, painful, dirty dressings. More often in these days the modern complete operation emphasized by Whiting and legions of others since him, results in successful outcome in comparatively short convalescence. Two factors will ultimately break down this fear of the people: One is absolute complete eradication of diseased areas at the time of operation; the other is conservatism in postoperative care. These two factors in the hands of the conscientious operator who does not hesitate to operate at the time indicated, will in time place the mastoid operation on the plane on which it belongs: A procedure as necessary as appendectomy in suppurative appendicitis, indicated at as early a stage as appendectomy, and with promise of as clean and sound outcome.

The otologist worthy the name who is in charge of the case from the onset is in better position by his observation of the progress and his estimate of the developing signs and symptoms to determine the need and time for operation than the consultant brought in at a casual interval for a single examination. I do not mean to imply that there is no value in added opinion and no soundness in multiple judgment. The

responsibility, however, still rests on the shoulders of the original attendant.

Success in the treatment on which depend not only the life of the patient but his comfort through convalescence and the ultimate functional result in the middle ear follows only after complete eradication of all diseased parts is accomplished. It is not enough to remove the external cortex and expose the antrum. Special care must be given to the tip cells, the angle between the horizontal and vertical plates posteriorly lying above the sinus, the root of the zygoma, and between the posterior canal wall and the anterior border of the mastoid process. In children the antrum should not be curetted.

We have found three technical aids of distinct service after watching Wells Eagleton work. One is illumination of the field by a headlight worn by the operator; the second is suction; and the third lavage with plain sterile water, suction being used to remove the water as fast as it flows over the field. At the completion of the bone work, lavage and suction are always used to cleanse the cavity. We find this the best insurance against leaving undetected diseased areas. We use a single wick of gauze packing from the antrum brought out at the tip and coiled lightly in the mastoid cavity, which is removed within 3 to 5 days. The skin is closed throughout nearly the entire length of the incision with clips. Since using clips in place of sutures of silkworm or gut, the wounds have been noticeably cleaner and healing more prompt and with better scars. A drain of gauze is left in the canal for 2 days and should come away nearly dry. Subsequently the discharge from the canal should be negligible, and the drum healed before the postauricular wound closes itself. We believe that the use of antiseptic solutions and enthusiastic postoperative syringing, are unnecessary.

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ABSTRACT OF DISCUSSION

LOUIS H. WEINER (Philadelphia): Several factors in the diagnosis of acute mastoiditis may be emphasized. The acute coalescent type of mastoiditis is best divided for clinical discussion into the painful and painless types. The painful type is easily diagnosed, as the patient seeks aid for relief. It is the painless type that lulls the patient and frequently the physician into a false sense of security until the suppurative process has invaded the mesial mastoid wall, producing intracranial complications. An outstanding symptom is a profuse discharge of some weeks' standing which in itself accounts for its painless character, since there is no pus retention or pus pressure. There is little or no temperature. Drooping of the posterosuperior canal wall and mastoid tenderness at the three cardinal points is almost constant. The roentgen ray is of inestimable value in arriving at a definite conclusion.

The hemorrhagic type of mastoiditis is always of a fulminating character. The patient is prostrated, fever is high, there is a thin bloody discharge, and there is pain, particularly at night. Often there are secondary lesions in the joints, heart, lungs, and kidneys, such as an acute hemorrhagic nephritis recently reported by Ersner and Mitchell. Here, immediate operation is indicated to forestall intracranial complications. While we advocate immediate operation in the hemorrhagic type, there is no advantage in an emergency operation in the coalescent type, until the mastoid cells have broken down.

Given a case of acute recurrent type of mastoiditis, frequently of eustachian tube origin, or due to broken down cells about the petrous pyramid, an indication for operation should be the saving of hearing by prompt surgery.

The Schilling test as a laboratory aid in determining the time of operation is emphasized by Dr. Buckman. A point of significance is the percentage of eosinophils and unsegmented neutrophils or staff cells. A complete disappearance of the eosinophils is indicative of a severe infection; a persistent eosinophilia is a poor prognostic sign; a reappearance of eosinophils is a good prognostic sign. The reverse is true in regard to staff cells. I should like to ask Dr. Buckman what significance he places upon the Schilling index in children?

A discussion of the treatment of mastoiditis would not be complete without mention of the atypical cases which strain the diagnostic ability of every otologist. Ersner, in 1922, before this Society, described a group of cases in infants in whom there was no aural discharge, little or no swelling over the mastoid, and indefinite roentgen-ray findings associated with intestinal disturbances, which proved to be an atypical mastoiditis.

Lierle and Potter, in a recent exhaustive study of this atypical type, state that edema of the posterosuperior canal wall is constant.

Our attitude towards the general practitioner should not be dictatorial but educative. It is the family physician who rightfully advises the recognized medical treatment of mastoiditis. This consists of rest in bed, adequate elimination, appropriate nose and throat medication, and adequate drainage of the middle ear. Occasionally one is surprised by the results obtained by conservative measures. We cannot wholly agree, therefore, that the logical treatment of mastoiditis is only surgical. Moreover, roentgen-ray treatment of mastoiditis is becoming an accepted therapeutic measure other than surgery.

Teaching the general practitioner the recognition of the hemorrhagic and the atypical cases is the greatest service that the otologist may render.

M. VALENTINE MILLER (Philadelphia): My discussion of the paper will be taken up under several general headings:

I. The prevention of mastoiditis:

(a) I agree with Dr. Buckman that the well informed otologist is in far better position to care for acute conditions within ears than is the average practitioner or pediatricist, and also that if he were called in earlier many cases of mastoiditis would not develop. There are still some practitioners who, at the first sign of otalgia, instruct the mother to pile on hot water bags and pour in hot drops until a discharge appears and the pain subsides. Heat is applicable in certain cases, but a patient with earache should be seen and the situation properly understood. If more of these cases were seen and early myringotomy performed, there would be

fewer mastoid cases. Early wide incision is of great importance. It should never be a stab wound, such as is often made by the uninitiated. Properly done the incision will have no bad effect upon the hearing. Crowe and his associates at Johns Hopkins have proved that so long as the ossicles and their ligaments are not injured, even multiple incisions will cause no hearing defect.

(b) I never advise massive irrigation, and rarely advise any at all. For the first 24 hours after incision, the ears should be severely left alone. If the secretion becomes so thick that it cannot be readily wiped away, advise gentle irrigation with a small rubber bulb, but always with the proviso that the stream never be directed against the drum but rather against the canal wall, so as to produce a sort of whirlpool action. A number of cases of mastoiditis are due directly to too enthusiastic irrigation. I have known hot irrigations to be ordered every 15 minutes following myringotomy, and in each case they were kept up until the children were operated upon for mastoiditis.

II. Diagnosis:

(a) Acute conditions of the tympanum should be closely watched by a competent observer. Because an ear drum has healed and the discharge stopped does not rule out a deep infection, even though the pain has disappeared. A case in point is one which I was called to see last March. There had been an acute otorrhea for about a week following a bronchopneumonia the end of December. The discharge ceased and the patient had no pain. Within a short time headache developed and when seen several months later he had a normal looking tympanum, except for some retraction, and no mastoid tenderness, in spite of the fact that operation disclosed an osteomyelitis of the temporal bone, a cerebellar abscess, and a generalized pneumocephalus.

(b) Roentgen-ray plates should always be read by the otologist and correlated with the clinical findings. I have had negative roentgen-ray reports when dealing with extensive involvement. (Incidentally, the case with osteomyelitis of the temporal bone had a negative roentgen-ray report.) I have had positive reports though there was no mastoid involvement. In certain cases serial plates have proved helpful.

(c) Clinical signs: It is easy enough to make a diagnosis if the classical signs are present. There are cases of extensive involvement with very few signs. Certain cases, particularly those from scarlet fever, may not run according to textbooks. In the Municipal Hospital, we cannot wait for the usual signs. If a case with an otorrhea lasting 10 days or more, with a persistent temperature and no other demonstrable cause, we will open the mastoid, and I have never yet failed to find badly involved tissue and even perisinus and epidural abscesses occasionally. In some cases, the presence of the Weber-Schwabach paradox, as described by Dr. Mackenzie, will help. It takes a trained otologist to diagnose these cases and that is an additional reason why he should be called in early.

III. Treatment:

(a) In the average case of mastoiditis there is no need to have the patient rushed to the hospital for immediate operation. It is spectacular to do midnight operations and it produces a great effect upon the family, but in most cases it is unnecessary. Not all mastoid cases come to operation, and most of those which do have a more placid convalescence if several days are allowed to elapse between the first signs of involvement and the operation. There seems to be to some degree

a local protective barrier developed if this is done, which aids in recovery after operation. There are some cases which require earlier surgery than others, and I agree with Dr. Buckman that the acute cases in sclerotic mastoids are among these. At this point, however, I do not find myself in accord with some of the ideas of Dr. Buckman. He seems to feel that it is the structure of the mastoid which determines whether the case be of the coalescent or the hemorrhagic type. One does find more cases of the hemorrhagic type in the sclerotic than in the highly pneumatized cases, and it is the type of the invading organism which determines the type of involvement rather than the structural make-up of the bone. In the sclerotic type of mastoid with an acute infection the need for early operation is because intracranial complications develop earlier than in the pneumatized type, and this is not because the infection is more often of the hemorrhagic type, but because of the structure of the bone.

I agree wholeheartedly in the necessity for complete exenteration of the mastoid cells. I have seen cases in which the first cells opened were normal, and yet when these were removed, the underlying structure was a mass of necrosis. One such case was bilateral, and the patient was one operated upon in the Municipal Hospital. One side was obviously involved; the other was decidedly suspicious but not definite. The obvious side was opened first and found to be entirely broken down. The other side was then opened. The first cells were perfectly normal. In fact, all the cells along the anterior portion were normal, but under and behind them the mastoid was full of pus and absolutely necrotic. It is the incomplete exenteration which leads to chronic discharge and which predisposes to further complications.

(c) I am heartily in accord with the use of small wicks of gauze as a drain, and in closure of the wound except at the lower end at which the drain is brought out. I agree also about the clips, as the results are better than if sutures are used. The packing of the wound with fold after fold of gauze, with the repeated painful dressings over a protracted period, and the resultant deep scar, is a reason that the operation is so feared by the layman. With the small drain and almost complete closure the average case will leave the hospital within 7 or 8 days after operation, frequently with a dry ear and completely dry wound.

GEORGE W. MACKENZIE (Philadelphia): We do not need to wait until we get 100 per cent of the symptoms before operating on a mastoid, independent of the type of mastoid. If we have but 35 per cent of the symptoms and signs of mastoiditis it is time to operate, and you will find involvement present.

If operation is done, it should be thorough. Fatal complications follow in those cases in which the operation was not complete. Statistics from the Vienna Clinic collected from the Pathologic Institute, between the years 1893 and 1907, show that in every case of mastoiditis that came to necropsy it was found that the surgeon had not done complete work.

The cases of atypical mastoiditis are the most dangerous ones, those in which there is a thick external cortical wall with the other walls relatively thin. If you recall the anatomy you can understand the readiness with which the infection will find its way to the deeper structures.

Complications of a severe nature are always preceded by irritative symptoms. In case of labyrinthine complications the patient has repeated attacks of irritation in

which the nystagmus is directed toward the side affected. In the case of a thin posterior wall we are more likely to find signs of cerebellar involvement. In those cases in which the floor of the middle ear cavity is thinnest the tendency of jugular bulb involvement is increased. Most of the cases of so-called lateral sinus thrombophlebitis actually start in an infection of the jugular bulb.

J. LANDIS ZIMMERMAN (Harrisburg, Pa.): I want to call attention to a type of drainage that is useful. It is called a serous drain and consists of a tube of sterile material which will not collapse on boiling, and at the close of the operation it can be inserted into the cavity, the same as a wick, and establishes absolute drainage. It is in various sizes from 2 mm. up. As the case progresses, the size may be cut down until

there is only a small drain. It considerably decreases the time of healing.

THOMAS R. CURRIE (Philadelphia): I have been in the Ear, Nose, and Throat Dispensary of the Episcopal Hospital for more than 30 years, and can say truthfully that we have not had a patient with mastoiditis come to the Dispensary who has not given a history of ear syringing. Otolologists should be very careful in the advice they give about syringing, because that is the first thing the general practitioner does when treating a painful and discharging ear—advise the family to syringe the ear. The general practitioner should refer the patient with the discharging ear to his colleague, the otologist. Many cases of chronic deafness would be saved thereby. I am glad that the matter has been mentioned, and mentioned only to be condemned.

DISEASES OF THE EYELIDS*

ALVIN A. SCHLEGEL, M.D., PITTSBURGH

The anatomic structure of the borders of the eyelids, with rich vascularization, junction of skin and mucous membrane, cilia, and numerous and different glands, together with the presence of constant moisture renders them peculiarly susceptible to a variety of inflammatory conditions some of which are of frequent occurrence. Any abnormality of structure or of function of one of these tissues may cause some dysfunction in one or more of the other tissues, usually with some type of inflammation, acute or chronic.

Simple hyperemia with only redness of the lid borders occurs in persons with fair complexion and thin skin after only slight trauma such as exposure to wind, dust, smoke, or it may be due to congestion caused by overwork, loss of sleep, prolonged reading or eyestrain from uncorrected asthenopia. It may also be caused by the use of alcohol or tobacco. This type of hyperemia may occur at intervals or be present to some extent for a whole lifetime.

Actual inflammation of the lid borders themselves may be considered in two main groups, *i. e.*, blepharitis squamosa and blepharitis ulcerosa.

In blepharitis squamosa the skin about the cilia is covered with small gray or white scales. Removal of these scales leaves a moist area which is hyperemic but not ulcerated.

In blepharitis ulcerosa the lid borders present yellow, white, or gray crusts which extend up onto the cilia and are more firmly attached. Removal of these crusts reveals small ulcers. Scars from former ulcers may be present with permanent absence of cilia in their vicinity. The presence of crusts, if left untreated, increases the areas of local inflammation thus allowing staphylococci to enter other follicles, destroy

more cilia, interfere more with function of meibomian secretion and gradually extend the process causing more ulcers and more cicatrix. Contracture of this cicatricial tissue pulls the lid margin away from the eyeball, exposing a strip of conjunctiva to the air and evaporation. The conjunctiva now becomes more inflamed and thickened and a vicious cycle is started as constantly more conjunctiva will be exposed.

Blepharitis is due to both local and general causes. There is a family predisposition to it. External irritants encountered in various occupations, conjunctivitis, lacrimation due to tear passage abnormality, and trachoma may be causative factors.

Treatment demands elimination of general disease, of exposure to external irritants, and of all contributing local pathology such as dacryocystitis, trachoma, and conjunctivitis. Blepharitis as a rule is very resistant to treatment. Marked improvement may be attained and then relapse often occurs if treatment is relaxed. Recovery from ill health in the young may permit a complete cure. Locally it is absolutely essential that the scales or crusts are removed before application of medication. This is best accomplished by removing them with a fine forceps or by softening with water or 2 per cent solution of sodium bicarbonate and then removing with cotton or gauze. In the squamous type application of solution of mercury cyanide (1:3000) or bichloride of mercury ointment (1:3000) three times a day will control the inflammation. Small abscesses present in blepharitis ulcerosa should be opened and cilia epilated if they are involved in the abscesses. Ammoniated mercury ointment, 2 per cent, or yellow oxide of mercury, 2 per cent, is then rubbed onto the lid margin. If ulcers persist they are

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painted with 2 per cent solution of silver nitrate or touched with a mitigated stick. When this treatment has cleared up all ulcers, it is advisable to continue with boric acid ointment, 5 per cent, for several weeks. Solution of sulphate of zinc, one grain to the ounce, dropped into the conjunctiva has a beneficial effect. In neglected cases, ectropion appears and may assume alarming proportions. Lids are completely everted by the thick swollen conjunctiva which becomes so dry and rough that one fears injury to the cornea when position of the lids is forcibly corrected. Medical treatment may at first seem hopeless, but if the skin of the lids is still flexible much can be accomplished. Boric acid ointment and a bandage carefully applied so as to prevent eversion of the lid for about two weeks brings about marked improvement in the swollen conjunctiva. Bandage now will be necessary only at night provided the patient can observe and control position of the lids during the day. Instillation of solution of zinc sulphate, one grain to the ounce, and boric acid ointment to lid margins should now be continued. In several weeks the lids will remain in nearly normal position.

Phthiriasis palpebrarum with its dark lid margins will not be confused with blepharitis as the nits of the pediculus pubis may be seen on the lashes. These are easily destroyed by the application of blue ointment.

Hordeola, or styes, may be included in a consideration of the medical afflictions of the eyelids since repeated attacks require nonsurgical treatment. Causes of this infection are varied. Sometimes it is due to passive congestion which is produced by eyestrain and then a troublesome series of hordeola may be terminated by correction of errors of refraction with glasses. Hordeola appear during an attack of conjunctivitis or blepharitis. In others they are caused by direct transmission of the infecting organism from a patient with a hordeolum to another member of the same household. In other instances, hordeola appear after exposure to the water of a swimming pool. It is conceivable that a person in good health may have low immunity to a particular strain of organism and that contact with it will produce this infection at the lid borders, although subnormal health and hygienic factors may be responsible. The latter types are much more common than those in which eyestrain seems to be the primary cause and, if recurrent, are much more refractory to treatment. The duration of discomfort and disfigurement is shortened by application of hot moist compresses. To guard against infection of other follicles, solu-

tion of mercury cyanide (1:3000) or of sulphate of zinc, one half per cent, should be dropped into the conjunctiva for 10 days following a hordeolum. Some of the antiseptic ointments, as bichloride of mercury (1:3000), would seem to give more constant application and thus better protection to further attacks but in some patients aqueous solutions seem to be more effective. If local treatment fails and there are no faults in general health, an autogenous vaccine or bacterin often gives permanent relief. Surgery should be withheld until infection is well localized and the dermal or conjunctival side of the pus pocket is thin and almost necrotic in order to avoid entrance of infection into the general circulation. For the same reason a sty should never be forcibly pressed or squeezed.

Chalazion is a granuloma in a meibomian gland. Infection, however, seems to be a factor. Authorities suspect a protozoan, tuberculosis and other bacilli, as the offenders. As one chalazion is sometimes followed by another exactly opposite to it on the adjoining lid, infection seems a likely cause. It is probable that in some instances formation of a chalazion may be prevented. Routine inspection during the course of refraction sometimes reveals early retention in a meibomian gland near the lid margin accompanied by slight inflammatory reaction; or there may be a small hemispherical enlargement farther up in the tarsus visible in the skin surface without any inflammation externally. The lumen of the gland below these accumulations may not be occluded as yet by the inflammatory reaction within the gland. If the patient is asked to direct his gaze slightly downward and the lids are pulled forward so that conjunctival surfaces are apposed and fairly firm pressure is applied on skin surface of the lids with the thumbs, accumulations can usually be evacuated through the gland opening on the lid margin. Accumulations higher up in a gland are composed of a heavy yellowish substance entirely dissimilar to that found in a fully developed chalazion. If the obstruction is near the lid margin, smaller amounts of the same substance or a hard cone-shaped body resembling a very large comedo may be expressed. These conditions have been described as meibomitis; but they are chronic, nonsuppurative, and could cause the degenerative changes found in chalazion. After expression, the accumulations will not recur as does a comedo. A normal appearance is retained for years.

Herpes zoster ophthalmicus occurs most frequently in feeble elderly persons but is also seen in the young and healthy. There is an epidemic

type caused by an acute infection, and a symptomatic type secondary to other conditions. In the epidemic type the initial symptoms are rise in temperature and pain in one side of the head. From one to three days later the skin supplied by the ophthalmic division of the fifth cranial nerve becomes hyperemic and develops small papules which rapidly change into vesicles and then to dry crusts. These lesions involve the side of the nose, the upper lip, and the forehead on one side and may extend into the hairy scalp. In about 50 per cent of the cases, ocular involvement constitutes a menace to vision. Corneal ulcer, iridocyclitis, ocular palsies, scleritis, and optic neuritis are the complications. Symptomatic herpes zoster ophthalmicus may be bilateral. It is caused by syphilis, malignancy involving the gasserian ganglion or the fifth nerve, and by the administration of arsenicals such as Fowler's solution or salvarsan.

Treatment is largely symptomatic. Neuralgic pain may be very severe for two or three weeks. Many older patients become dangerously exhausted after prolonged and constant agony and fatal collapse has ensued. Rest in bed is indicated even if pain is not so severe as it tends to prevent or alleviate complications. Sedatives for pain should be administered and a mild ointment applied. Treatment of conjunctiva may be impossible on account of swelling and tenderness of the lids.

Mikulicz's disease causes great enlargement of the eyelids. There are lymphomata of the lacrimal, parotid, and submaxillary glands. It is a chronic painless affliction and is not associated with any systemic disturbance. The involved glands are swollen and tender. There is partial ptosis on the temporal side of the lid and dryness of the conjunctiva. Young and old of both sexes are equally involved. Nasal abnormality sometimes accompanies this disease. Treatment consists of administration of iodides and attention to nasal pathology.

Syphilis manifests itself as chancre or tertiary lesion. Chancre is the usual ulcer with indurated base. *Treponema pallidum* may be demonstrated. Syphilitic tarsitis is really a gummatous infiltration of the tarsus. One or both lids of the same eye gradually develop pronounced swelling with little pain. The skin is tense and red and the enlarged tarsus is palpable. The swelling gradually subsides during a course of several months. Serpiginous syphilide of the eyelid causes extensive destruction if not promptly treated. Gumma causes intense swelling of the eyelid which breaks down into an irregular punched out yellowish ulcer. Mercury and

iodides internally and mercurial ointment to the ulcer give good results.

Impetigo contagiosa of the face extends to the eyelids. It causes superficial vesicopustules which become converted into yellow crusts. After removal of crusts and cleansing the lesion with solution of bichloride of mercury (1:3000), application of ammoniated mercury ointment, 2 per cent, brings about prompt cure.

Urticaria of the lids displays the usual wheal with itching. Catharsis and elimination from the diet of foods to which the patient is hypersensitive will give relief. It should be remembered, however, that in this type of hypersensitivity eye-strain or improperly corrected errors of refraction may be a contributing factor in attacks involving the eyelids.

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ABSTRACT OF DISCUSSION

J. MILTON GRISCOM (Philadelphia): It is profitable from time to time to discuss the commoner types of ophthalmic affections, since they occupy so large a place in the daily routine of the average ophthalmologist.

The lid affections which Dr. Schlegel has brought to our attention do not occupy a large place in the literature, but clinically they are of great importance, not only because of discomfort or pain, but because diseased lids are disfiguring and embarrassing to the patient, especially if the condition is a chronic one. Accordingly, relief is demanded and should be provided.

In cases of blepharitis, for example, we may not be concerned with any serious involvement of the eye itself, but we are often confronted with stubborn resistance to treatment. Indeed, in many instances with each change of medication the lid margins seem to take on greater inflammatory activity. This can be partially explained by the great number and complexity of etiologic factors which affect one or more of the elements constituting the lid margins—the skin, cilia, follicles, glands of Zeiss, Moll, and meibomian. In order that the exact cause may be determined it is necessary not only to examine the conjunctiva and its culdesacs, the lacrymal apparatus, and errors of refraction, but also to investigate the patient's past medical record, his present physical status in great detail, his environment and occupation. Aubaret, in his report on blepharitis, its etiology and treatment, before the Ophthalmological Society of France in 1929, gives in detail the clinical varieties and indicates the scope of investigation which must be made before satisfactory basic treatment can be instituted.

Dr. Schlegel's statement that a hordeolum should never be pressed or squeezed and that surgical measures be deferred until the infection is well localized, should be emphasized since orbital cellulitis has been known to follow too early intervention.

Opinions differ concerning the etiology of chalazia. Friedenwald believes that the initial process consists in an obstruction of the ducts of the meibomian glands followed by a cyst. Pressure or some toxic substance in the retinal secretion causes the epithelial wall of the gland and its duct to ulcerate, and the retained sebaceous material in contact with the underlying connective tissue causes a foreign body reaction with mononuclear infiltration, giant cell formation, and granular tissue. Sanford Gifford found the xerosis bacillus

in 50 per cent of the cases, and the staphylococcus practically always. He suggested that the acute variety of chalazia may be due to the staphylococcus and the chronic variety be caused by the xerosis bacillus. Fuchs considered the granuloma to be the result of a genuine chronic inflammation. The giant cells are significant only as foreign body cells, which often arise when epithelial-like or other structures difficult of absorption remain in tissues. In any case, Fuchs stated chalazion has nothing to do with tuberculosis. In this he was supported by de Schweinitz, who says inoculations have never shown the presence of tuberculous infection. On

the other hand, Ball writes that the granuloma follows an infection and is due frequently to the tubercle bacillus. He quotes Fisch, of St. Louis, who has demonstrated the presence of the tubercle bacillus in giant cells found in chalazia. The majority of observers are content to attribute the chalazion to a chronic infection without assigning to it any specific organism. In contrast to hordeolum, surgical treatment is indicated early. Whether this shall be through a skin incision with complete dissection and removal of the chalazion, or incision through the tarsal conjunctiva with curettement, depends on whether the mass is pointing externally or internally.

PREVENTION OF DISEASE*

Practical Considerations

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Disease prevention must have occupied the mind of man from the beginning of most primitive time. It is reasonable to believe, notwithstanding the still rather widely accepted belief of fundamentalists, that in the beginning man lived for a period free from all diseases, that man and disease are coexistent. Anthropologists have demonstrated evidences of the existence in prehistoric races, antedating the allegorical account of man's creation thousands of generations, of some of the diseases that afflict human beings in the present day; and in the writings of very early historic times are references that identify many of the diseases with which we are familiar.

Before certain epochal discoveries in medicine and correlated sciences in comparatively recent times, it was not possible for a state to undertake and accomplish disease prevention on a large scale as is the method now employed. The measures adopted were with the individual, usually beginning with the very young child. The limitations of the subject of this paper do not permit a discussion of the interesting theories of disease prevention or the methods used by peoples in different ages to maintain the health and vigor of citizens of the state, nor will time allow even the briefest enumeration of standardized methods of disease prevention and control authorized by federal and state agencies of public health; but the subject will be confined to that part of disease prevention which seems to lie primarily within the home and its closer contacts, and as it touches the duties of physicians, especially general practitioners of medicine and pediatricians, and the responsibilities of parents, and the instruction of parents regarding fundamental things that have become established as true.

Of first consideration in disease prevention is a correct estimation of the heredity of the newborn child and its possible or likely trends. It has long been recognized that in certain families succeeding generations show a higher incidence of some diseases or metabolic disorders than is the average for the whole population. This is in a measure true of every physical and mental attribute of the child. The economic status of the home, the intelligence and emotional make-up of the mother, as she has most to do with the care and supervision of the child during his first years; relatives and intimate friends of the family, they should be scanned not only as to the possibility of a source of infection, but also with regard to the factors making for the best mental environment as well. All these things should be the consideration of the pediatrician when he begins his supervision of the child and at all other times as opportunity permits of observation. It is assumed the obstetrician has made sure the absence of prematurity, congenital defect or injury, and the early manifestation of hereditary disease. Not quite infrequently may be overlooked a small atelectasis, congenital heart defect, a weak muscle group, or defect in palate.

For many years there has been agreement among physicians that maternal nursing is safest and best for the infant for the first several months. Breast feeding may not be the easiest method in every instance, but notwithstanding the present almost complete knowledge of the physiology and pathology of nutrition in infancy and the very many simple, easy, and workable methods of artificial feeding, and the multiplicity of infant foods, the incidence of morbidity and death rate are highest in the artificially fed. There appears to be a biologic "fit" in breast milk that has not yet been matched by any substitute. After all that has been taught and

*Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

urged regarding the importance of breast feeding there are still too many infants weaned early from the breast or deprived entirely of breast milk from the start. The reasons are many, and except for the relatively few legitimate indications found in the mother, most of them are not adequate. The most important consideration is whether the supply is sufficient for the infant's nutritional requirement. The infant himself will soon demonstrate this and not the scales or laboratory. The routine analysis of breast milk in the laboratory for any other purpose than scientific study or research is a waste of time and money.

Most, but not all infants have a rather wide food tolerance. The difficult feeding cases are met in the occasional infant having a food tolerance within narrow limits, and more frequently in infants in whom is present a toxemia caused by infection that may not be always easily recognized. Infection is oftenest in the upper respiratory tract and may present few signs of its presence, or may be present in more obscure locations; but wherever the location or whatever the type nothing narrows or upsets the tolerance for food so promptly as the occurrence of infection. Many difficult and troublesome feeding problems clear up almost magically with the disappearance of an infection that has seemed most trivial. Infants in whom this condition is present are too often weaned.

Warfare against myriad parasites begins for the infant the instant he becomes free from the membranes that have protected him from the outside world and continues during a life span that may be either long or short and finally ends, unless some accident intervenes or the individual is one of the rarest of the species and lives until full ripening occurs, in defeat for the host and victory for the invading parasites. At the outset of parental and medical supervision, especially of the first infant to arrive in the home, there are two things of importance that should be understood clearly by parents. First, the many and varied types of possible infections against which the defense mechanism of the child will have to contend; and second, the differences in contagiousness and hazards of the relatively few so-called children's diseases, especially pertussis and measles. Whooping cough and measles are apt to be far different diseases in the infant and young child than in the child of school age.

There are recorded in medical annals two triumphs of preventive medicine that transcend all other methods of disease prevention because of their simplicity, complete effectiveness, universal applicability, and nearly absolute safety.

For centuries smallpox was the scourge of the entire inhabited world. There are probably now living many physicians who, in private practice, have not seen a patient ill with smallpox. Diphtheria, not so long ago the dreaded disease to parents and physicians alike and prone to strike the quite young child, will soon come under as good control as smallpox has been for many years. Because the toxin-antitoxin mixture first used produced immunity in a high percentage of children who had received the injections, educational campaigns and large-scale work done by state and city health departments in the public schools and homes, and by other agencies, of immunizing children of school and preschool age, were the effective means of quickly immunizing the greatest number of children. In some instances, especially in cities having efficient health departments the immunizations were followed by Schick-testing every child after the proper interval following injection. Now that the experimental years have passed and reliable statistics have accumulated, a method so simple that it may be used by every physician in his office, should be applied only with the scientific exactness it deserves, and immunity should be made sure for every child by ascertaining he is Schick negative.

Of no less importance to parents than a correct comprehension of the specific children's diseases and their responsibility in having artificial immunity established at the right time for the ones for which a safe method is available, is an understanding that the child almost surely will encounter other infections, many of them mild and easily and quickly overcome, but at times so virulent that the defense mechanism may be taxed to its utmost limits. As there is no way to judge the severity at time of onset, the safe thing to do is to keep the child quiet until it is apparent the infection has been overcome. If this simple precaution were the invariable rule there would be speedier recoveries and fewer complications. It is with complications that a death rate so often enters.

The first years of the child's life are most important from the nutritional standpoint, not only during the immediate period, but for the entire life span. It is during this early stage of most rapid physical development that foundation for sound vital structures is laid down. Paradoxical as it may seem, a relatively low cost food supply of great variety, made universally available by specialized agricultural methods, rapid transportation of perishable foods over long distances, refrigeration by rail and ship, safe handling in wholesale and retail marts, home refrigeration and efficient equipment in the home for prepa-

ration of foods for the table, it has become increasingly difficult to maintain a satisfactory nutritional balance in the growing child and anorexia is a troublesome problem in many homes, especially of the well-to-do. Who is to blame for this? All of us, perhaps; parents and medical advisers, surely, but most and primarily to blame are the exploiters of manufactured and processed foods, attractively packaged, widely advertised, temptingly displayed and demonstrated in stores and homes, but always sold to consumers at an increased price that more than covers all added costs. This practice would be less open to criticism if these exploited foods had a value added commensurate to the increased price. Too often food value has been lowered or food balance deranged by the process of manufacturing. There seems always to have been in all peoples an instinctive hunger for sugars and fine starches, but until invention made possible their production these substances were the most difficult of all foods to procure. There is no surer or quicker way to bring about nutritional imbalance in a growing child than to permit him, day after day, to flood his system with sugar calories thus producing a distaste for the few really basic foods furnishing all the essential constituents for normal growth and development. Now that everybody, young and old, has become vitamin conscious we may pause and wonder how it was possible for the human race to survive so long on a simple diet of so few foods. The feeding of refined and processed foods to growing children making necessary the additional purchase of the essential elements lacking in these foods seems about as sensible as was the practice of some cities a generation since of permitting sewage to flow into the convenient lake or stream and pumping it back into the water mains for the citizens to drink.

In presenting these few of the many measures of disease prevention, I have had in mind a plan that seems practicable of application in the average American home, or even the home far below the average, in which a meager income is combined with intelligence and a willingness to coöperate. The plan would involve the physician as a teacher, not using methods of the propagandist nor faddist, but by making plain explanation of truths in an understandable way. Parents could be taught the simple facts concerning preventable diseases, the comparative hazards of diseases not preventable, and given to understand that for many diseases there is not a specific cure; that the most valuable measure in treatment is not the indiscriminate use of drugs and vaccines and serums.

In the many common illnesses of childhood

only infrequently should it be necessary to employ elaborate laboratory tests and the indications for them are always plain. Nor should expensive hospitalization and exciting consultations be the rule. It seems that it might be possible to carry out a program of education in the home and make it comprehensive enough to include most of the problems of diet, nutrition, the early training of biologic habits of eating, sleeping, and body functioning, posture, exercise, the recognition of signs of fatigue, and dental prophylaxis; nor would it require in the physician a profound knowledge of psychology nor a familiarity with the more intricate methods of psychiatry to be competent to advise in minor behavior problems of children of average intelligence. Parents could be told tactfully that the best prevention of behavior problems is for themselves to furnish a good example for their child and to maintain at all times a well-ordered home. It has been said the love of parents for their children is the most beautiful of all human sentiments; but it should not be carried to the extreme of adoration and worship, as is too often the case; and above everything else the child should be trained to a clear understanding that there are duties to perform, instincts and emotions to repress, and not always only rights to demand. Instruction in the home would be especially advantageous in two respects; it would effect preventive and corrective measures early, at the most favorable time, and would lessen the number of problems that otherwise would become the concern of the state at the time the child becomes a statistical unit on entering the public school.

I wish to mention briefly another side of disease prevention that is not entirely within the field of preventive medicine as employed up to the present time. Only four generations have passed since Edward Jenner's time and not quite two since Louis Pasteur and Robert Koch; yet within this comparatively brief period we have witnessed the practical disappearance of some and abatement of others of the diseases that for centuries had taken a heavy toll of human life. Public health agencies and private philanthropy have reduced infant mortality. These with countless other measures resulting from adaptation of scientific discoveries to the complexities of modern living have effected a measurable lengthening of life expectancy. Notwithstanding all these things in which we feel much satisfaction, some biologists believe the sum total of human suffering and misery has not been reduced one whit. There still remains the mysterious biologic law, not fully explained nor understood, by which through germ-weakening

"mutations" occur as different grades of mental deficiency. This law always has been operative, but its results have been accelerated by increase in population, racial mixing, and certain environmental factors that have resulted from changes in methods of working and manner of living. Preventive medicine and protective health measures result alike in preservation of fit and unfit. The lowest and lower grades of the mentally deficient to the extent that they are segregated in institutions are prevented from breeding. The higher grades of mental defectives are not segregated and live without restraint as to their mating. Statistics reveal that as a rule they are very fertile. In this connection it occurred to me that Fayette County, Pennsylvania, should furnish a fair example of what the trend has been. Social evolution in this county during the past 50 years should be almost typical of the changes that have taken place in other regions of the country that have within this time become highly industrialized. Until 50 years ago Fayette County was peopled largely by native stock. During the Civil War and the years following, because of the county's situation along the Mason and Dixon Line there was some increase in numbers of the colored race, which was further augmented in 1893, and since, by colored workers and their families brought in to replace striking workers in the mines. In the period covering the development of the coke industry the main increment in population from the outside came from central and southern Europe.

Earl Huston, controller of Fayette County, furnished me statistics computed on a partial

study of records kept in his office. The complete and detailed summary will appear as a supplement to his annual report. The county population increased from 110,412 in 1900 to 198,542 in 1930. This is a gain in total population for the 30-year period of approximately 79 per cent. In the year 1910, there were maintained 152 native-born and 43 foreign-born adults as insane patients in 2 State institutions, a total of 195. In the year 1920, a total of 240 insane adults, 141 native-born and 99 foreign-born, were held in 6 State institutions, a decrease of approximately 7 per cent for the native-born, and an increase of 130 per cent for foreign-born over the year 1910. In the year 1930, the last year that the record is complete, there was a total of 363 insane patients in 5 State institutions, 194 native-born and 169 foreign-born, an increase over the year 1920 of 27 per cent in native-born and 293 per cent in foreign-born. The total number of insane patients from 1911 to 1933 in all institutions is 6058, and the total cost to Fayette County for maintenance of these patients in State institutions for the 11-year period is \$894,013.80. Nor do these figures include the juvenile idiots, imbeciles, mongolians, neglected cretans, and the much larger number of individuals with an inherited mentality that does not permit them to compete on even terms in an economic struggle that becomes more difficult in each succeeding generation. No longer should a program of disease prevention be considered adequate or practical that does not include the fullest comprehension of this biologic trend.

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USE OF AUTOLYZED LIVER IN ANEMIA AND OTHER CONDITIONS*

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The purpose of this paper is to report the results of experimental studies of the therapeutic action of autolyzed liver. These experiments were undertaken primarily to study the nature of the deficiency in pernicious anemia. Special emphasis was placed upon study of the etiologic relationship of a specific gastric defect.

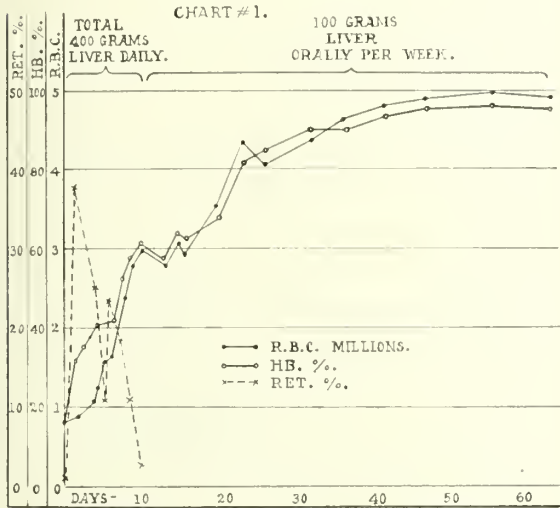
For years there has been an accumulation of laboratory and clinical evidence suggesting a causal relationship between the gastro-intestinal tract and pernicious anemia. Because of the achylia gastrica, attention was especially directed to the stomach, and the relationship of gastric function to the disease has been the object of intensive study. It was shown by Castle that beef muscle incubated with normal gastric juice be-

came therapeutically active, though either alone is ineffective, and it was concluded that normal gastric juice contains a substance which acts upon beef muscle liberating material effective in producing blood regeneration. It has been found also, that if liver is incubated with normal gastric tissue, an increased potency of the liver results. The production of this substance was considered a specific gastric function and pernicious anemia to be due to a specific gastric defect.

In order to study the therapeutic activity of protein cleavage products prepared independently of any function of the stomach, various tissues were subjected to autolysis and administered to patients with pernicious anemia and other conditions. Autolysis is the self-digestion of tissue and is due to the action of the proteolytic

*Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

enzymes contained in every cell. These enzymes differ from the ordinary proteolytic enzymes, pepsin and trypsin, in that the nucleoproteins which are only slightly affected by pepsin and trypsin are completely hydrolyzed by the autolytic enzymes.



As the dosage requirement of liver and liver extracts for the treatment of pernicious anemia has been more closely determined than that of other potent materials, these standards supplied the most convenient method for determining the effect of autolysis on the potency of tissue. Following the oral administration of autolyzed liver to 40 cases of pernicious anemia otherwise untreated, it was found that autolysis greatly increased the potency of liver. It was found that a single massive dose of autolyzed liver prepared from 400 grams of liver produced a maximal reticulocyte response which was followed by an increase of red blood cells and hemoglobin. If extracts prepared from liver which has not been autolyzed are given in a single massive dose, a much larger amount is required to produce the same effect. Riddle and Sturgis found the necessary amount to be the equivalent of 3000 grams of liver. A comparison of these amounts indicates that autolysis increases the potency of liver approximately 8 times. The average rate of increase, as determined in our series of cases, was approximately 5 times. Avoiding the administration of single massive doses, it was found that the daily administration of from 60 to 75 grams of liver equivalent produced the reticulocyte response and increase of red cells and hemoglobin which ordinarily follows the daily administration of 250 to 350 grams of liver which has not been autolyzed.

Chart 1 illustrates the response of a case of pernicious anemia to autolyzed liver.

The autolyzed liver was administered to a series of 50 cases of secondary anemia from various causes. It was found that a very favorable response was obtained in approximately 60 per cent of the cases. The most favorable responses were obtained in cases in which the anemia was not due to infection, such as the secondary anemia due to chronic bleeding from fibroids. The cases in which the anemia was due to infection, showed less favorable response and if improvement did occur, it was after a much longer period of administration of the autolyzed liver.

Chart 2 illustrates the response in a case without infection.

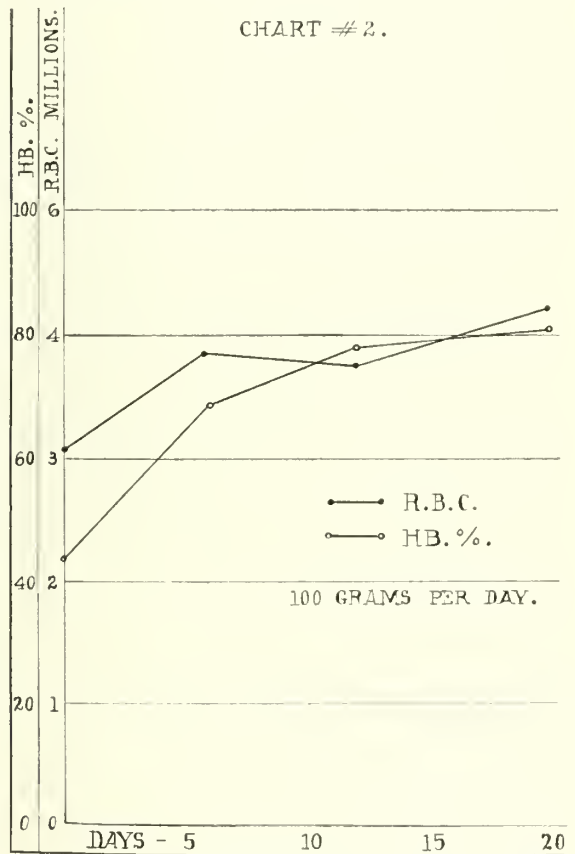
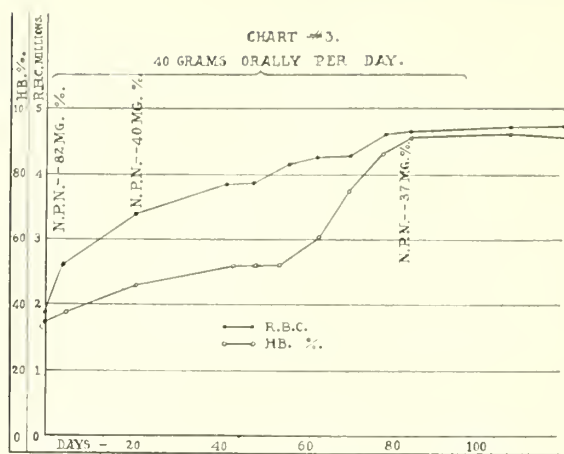


Chart 3 illustrates the response of a case of secondary anemia caused by infection.

Six cases of purpura hemorrhagica were given autolyzed liver. Three cases showed an increase of blood platelets and improvement in coagulation and bleeding time.

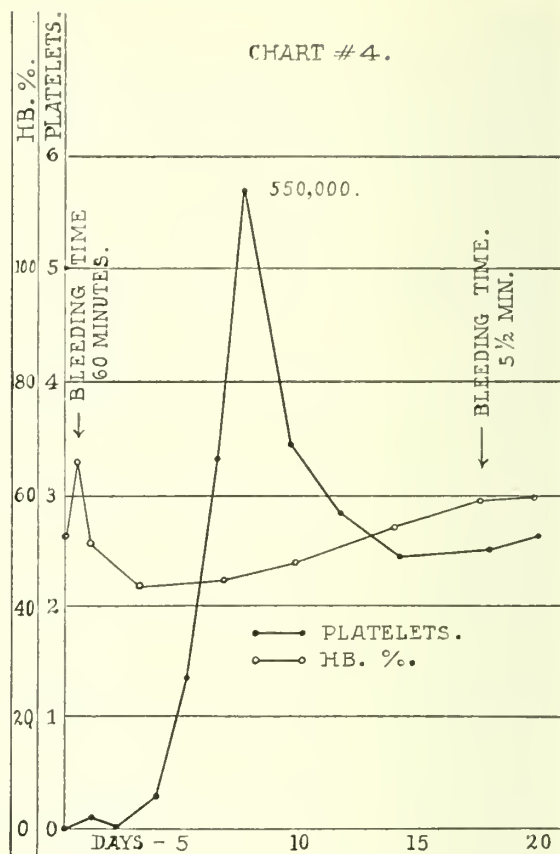
Chart 4 illustrates the response obtained in a case of purpura hemorrhagica.

We have found that the autolyzed liver is well tolerated by patients with duodenal ulcer. We believe that the material will provide a useful means of supplementing the diet which these patients are required to follow, as it provides a



source of animal protein free from connective tissue which is poorly tolerated by these patients. Twelve patients with duodenal ulcer have received the autolyzed liver, and none has had any unfavorable results. Eight of these patients showed an increase of weight, averaging 6 pounds in 3 weeks, and all have stated that their strength is increased.

We believe that this work has a bearing upon the question of the specificity of the gastric factor in pernicious anemia. As the autolytic enzymes, which are widely distributed and not confined to the stomach, are capable of increasing the amount of active material in liver, the specificity of the gastric factor is questionable. Without questioning the experimental results of Castle and Morris, our work indicates the need of a revaluation of the interpretations of their significance. Though the stomach undoubtedly



plays an important rôle in the production of pernicious anemia, its deranged function may be only one part of a widespread disturbance.

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HEARING IMPAIRMENT IN SCHOOL CHILDREN

Dr. R. Beatrice Rossell, Buffalo, N. Y., made a recent study of the child with a hearing difficulty, insufficient to be classified among the deaf, but with an impairment sufficient to affect its present and future welfare.

Early recognition of children so handicapped has been very difficult in public schools. The watch-tick test, the tuning fork, and the whisper tests were not practical enough to be employed in the examination of a large number of children. Besides, the many variations and inaccuracies rendered them useless for comparative purposes. Consequently these tests were employed only for examination of cases referred because of a suspected hearing loss, and not for the purpose of detecting a hearing loss not yet discernible in ordinary conversation. Slight impairments are not recognized by either the child, teacher, or parent.

With the use of the 4-A audiometer as recommended by Dr. E. P. Fowler and Harvey Fletcher and the Bell Telephone Laboratories, the problem of early detection of hearing impairment in school children has been greatly simplified and unified. As many as 40 children can be examined in a period of 15 to 20 minutes.

The following recommendations are made:

1. An audiometer reading of the hearing of every school child is a helpful record in determining educational progress.

2. All children who have been absent from school because of ear, nose, and throat conditions or infectious disease such as scarlet fever especially should be referred for otologic examination and audiometer reading. Also all repeaters, cases of apparent stupidity, inattention, all faulty speech cases, and problem children should be referred for examination.

3. Parents, teachers, and principals should be informed of the causes of ear disease and instructed to recognize a beginning deafness so that no time may be lost in instituting measures against the tragedy of deafness which often follows neglect.

4. Lip-reading instruction is strongly urged for all cases who have acquired an unremedial hearing impairment progressive in character.

5. A united effort of all authorities, otologists, teachers, social service workers, and parents is essential to continue this substantial beginning toward eliminating total deafness among our school children.—*New York State J. Med.*, Dec. 1, 1933.

EDITORIALS

THE NEW MILK LAW

Governor Pinchot signed the new Pennsylvania Milk Control Board Bill, which he considers meets his views in full measure.

It is thought by many that the provision exempting coöperative milk-producing organizations from the price-fixing powers of the three-man board that will administer this act, is not only freakish, but a drastic measure of far-reaching import. The Governor has appointed three competent men to the new Milk Control Board, all of whom are primarily representative of the milk-producing interests of the State.

This new law undoubtedly aims more definitely at the control of the milk dealer, the distributor, rather than at the producer. The Control Board has the power to dictate every angle of milk production and its distribution, except as to the internal affairs of the coöperatives, including the prices they pay to their members. It is generally agreed that the act leaves no doubt that its main objective is to aid the dairy farmer. Some critics of the bill believe that the effect of the latitude allowed the coöperative organizations will prove to be dangerous.

The act was adopted for an "emergency," and is limited to the period ending April 30, 1935. It is natural to believe that the State once having taken hold of the regulation of milk, will not easily show a desire to relinquish control of it. The trial period, however, should bring out the pros and cons in the system of regulation provided, that perhaps will impel the 1935 regular session of the Legislature to correct the objectionable features.

Milk is a necessary item in the household supply. It is the most important single item of food. It ought to be available to the consumer at a minimum cost consistent with purity and general quality, which means a price consistent with profitable production and service. The general impression has been that both producer and consumer have been denied their fair consideration and that the necessity, or desire, of the processor and distributor has been regarded as the prime factor.

STATE LIQUOR STORES

In a statement issued by Joseph H. Choate, Jr., director and chairman of the Federal Alcohol Control Administration, Washington, D. C., Jan. 4, he said that the states selling liquor

through retail stores must protect the public from "being victimized by poor quality and high prices."

The debacle of the retail liquor stores of Pennsylvania is most amusing, as was shown through the newspapers, especially in regard to a chemical analysis that was made in Philadelphia, at the instigation of the *Philadelphia Inquirer*. This analysis showed particularly that the whiskey examination practically in no way met the requirements of the United States Pharmacopeia; that the gin being sold did not contain gin, *etc.*; that the bottles were distinctly misbranded, thus the State in its own stores controlling the sale of liquors was misrepresenting its products. The statement made by Federal Administrator Choate was to show definitely that the Government is keenly alert to the liquor problem. Mr. Choate evidently made it plain that "victimizing" was taking place in the liquor retail stores which are under the direct jurisdiction of the separate states and the Federal Government, and that such could not violate the basic principle of the Constitution. In other words, Administrator Choate distinctly said that "each state can and should police its retail stores for itself."

The Federal Alcohol Control Administrator is required to supervise the producer and the wholesaler only, and in this way controls the quality of liquor, thus the protection of fraudulent and unwholesome liquor can be prevented. The Federal Alcohol Control Administrator has no control over cheating by retailers. In view of the statement made by Administrator Choate, each state must control its liquor retailers; it would not be possible for Federal inspectors to be posted in various states for the protection of the consumers owing to the frightful cost incident thereto.

It has been inferred by certain political groups in Pennsylvania that at the next meeting of the General Assembly, be it a special session or a regular one, there will be a demand made for "honest labels" on all whiskey, gin, and wine sold in the State liquor stores. It is further inferred that at least two bills will be introduced into the legislature demanding that distillers be denied the privilege of selling "aged-in-a-day" whiskey or gin at any time or at any price. The need to speed action by the legislature to enact new laws safeguarding the public was brought about by the disclosure that some of the alcoholic goods now being offered for sale in the State liquor stores

are misbranded. The analysis that was made of the products sold by the State liquor stores showed, too, that some of the bottles of whiskey did not contain the quantity stated on the label. The feeling is that these labels were prepared either in gross ignorance or with the intent to deceive the drinking public.

We are advised that State Attorney General Schnader has drawn up drastic "pure liquor provisions," which he may present to the legislature. Attorney General Schnader of Pennsylvania issued a ruling, Jan. 19, 1934, that drug stores may sell alcohol without a prescription; that the State of Pennsylvania has imposed no restrictions upon the sale of alcohol; that alcohol may be sold lawfully by druggists and others without obtaining a license. It is the attorney general's opinion that only those having State permits may use alcohol in the blending or manufacture of alcoholic beverages.

According to the newspapers most of the big distillers in the State of New York are trying either to outlaw temporarily or curb all labels until "officials agree to go along." The New York law was suggested to go into effect Jan. 4, but it is reported that the distillers said they did not have enough time to "re-label" goods intended for consumption in the next 2 or 3 months.

STERILIZATION

We are living in a man-made period. In some instances nature takes a back seat. We make our own heat; we make artificial rays and laugh at cloudy days; we make our own breezes and regulate humidity. We make our own codes for business, industry, culture, morals, and religion. And indeed, we are pretty proud of ourselves. In fact, the sky is the limit!

For example, we are tackling old nature herself. When we want a bigger potato, we cross and re-cross. The same applies to dogs, horses, mules, cats, *etc.* We have been so successful that we are now saying to old nature that we are not satisfied with human beings. There are too many with brown eyes and black hair. We want Nordic blondes. We are dissatisfied with bow-legged, lopsided children. We feed them fish oil and vitamins. We no longer need gall-bladders, teeth, tonsils, and spleens. And why have so many feet of colon when a few feet will do? We must train people according to definite patterns in feeling, thinking, and acting, *etc., ad infinitum*. We keep little ones in the world that nature tries to eliminate.

One of our greatest tools in taking a hand in this business is sterilization. We are going to

elect who shall be our posterity and our blessed children's contemporaries. In fact, contraceptives and sterilization are going to produce a super-race. We are going to replace the old Bible admonition, "Who is man that thou are mindful of him" with "Step aside old nature, you are old-fashioned—we can do the job better." We will no longer say grace or nightly prayers; nor kiss the children good night. The General Electric will provide one of those steel-like men who will do all these things for us.

Now, sterilization, under medical guidance in selected cases, is a step in the right direction, for many imbeciles and idiots would never be born. But let us not fool ourselves that there will not be others. These unfortunates appear, but to a less degree in the silk stocking crowd, so to speak. So, medical brethren, let us be sure about these matters. Allow nature to carry on a while longer. Let us not think of the knife too much, for many other conditions—cancer, tuberculosis, hay-fever, asthma, and migraine—and neurotic individuals possibly are, also, a hereditary curse and cause more pain, distress, and economic loss than the feeble-minded; and these too could be made to yield to the knife.

Facetiously speaking, if contraceptives and sterilization have full sway, what an economic calamity—superintendents and doctors of our State schools would lose their kingdoms; we would have no need for Ireland's overflow, who are now attendants (all the wit and humor gone blooey); psychiatrists would go to work at hard labor instead of to conference hours; psychologists and psychoanalysts would hit the trail; social workers would have repressions; sob-sistering spinsters would have no little children for uplifting; mothers, who spent no time with their own children, would be deprived of maternal outlets in their old age; preachers could no longer moralize us by pointing at the poor unfortunate and saying "behold the curse of alcohol and syphilis"; public health officers would have nothing to write about; tuberculosis societies and Red Cross organizations would be disbanded; all our great symbols of love and charity would be obliterated; and who knows, fraternal organizations might disband! Such might be the price of the superman.

One regrets to think what the world would have been had there never been any psychoneurotics. There would have been no great movements, as all great movements to be accepted by the public are dependent on teaching, preaching, and a bag of tricks. The psychoneurotic was always a part of the bag of tricks. For example, without him we would not have had hypnotism, mesmerism, quackery, mysteries, psychoanalysis,

and the freedom of discussion of sex over our teacups. Possibly the effort to relieve the psychoneurotic of his conflicts automatically has provided a tremendous psychic purge for the world at large.

Be that as it may, let us not throw nature off the throne. Let us not be too severe on her. If she continues to make a 90 per cent in the harvest rating, she is doing a pretty good job—a fair batting average, we might say. One doubts if the eugenists in several million years could do as well. Biologic inheritances are difficult to eliminate and control.

A MODERN RESPONSIBILITY OF A COUNTY MEDICAL SOCIETY

The following plan for medical service to paupers (in contradistinction to those on emergency relief) eliminates the "poor" doctor, also the indigent poor (not institutionalized) are to have choice of physician, the latter to be paid along lines very closely resembling the recently inaugurated plan for payment of medical service to those on Emergency Relief.

The most encouraging feature of such evidences of progress toward economic fairness in the treatment of the sick poor is not alone the fact that physicians are to be paid something for such office and home services, and that the sick poor are to have their own choice of physician, but the fact that the quality of the medical service and the charges for same are to be sponsored by a representative committee of the county medical society.

Rules and Regulations Governing the Medical Treatment of the Poor of Northampton County. Said Rules and Regulations Agreed to in Conference by Both the County Poor Directors of Northampton County and the Public Relations Committee of the Northampton County Medical Society, Acting for That Body, on Dec. 22, 1933. Effective Jan. 1, 1934.

The subject matter herein stated is to be construed as a set of rules and regulations agreed to on the one part by the County Poor Directors of Northampton County and on the other by the Public Relations Committee of the Northampton County Medical Society.

The purpose of this agreement is to render adequate medical care and attention to the *indigent* poor, or other eligible persons, of Northampton County who are from time to time in need of medical service in their respective homes.

This agreement is not to be interpreted, in any way, to provide care for the indigent poor who are now in institutions, within or without our County; or to provide care for any unemployed who are now, or may be in the future, receiving unemployment relief, be it either through local organizations, State Relief, Federal Government, or our hospitals.

These rules and regulations are agreed to so that the poor in each and every section of our County may re-

ceive good medical service at reasonable cost. The service rendered shall be of two types:

- (a) At the home of the patient.
- (b) At the office of the physician.

It is agreed that patients of ambulatory type shall go to the office of a physician in the County. If the patient be confined to bed, the doctor shall be called to make the visit at the home.

It shall be the duty of the Public Relations Committee of the Northampton County Medical Society, acting for that organization, to have appointed an advisory Committee to assist the County Poor Directors in the maintenance of proper professional service and to determine the adequacy of the medical care given to the poor of the County.

In all disputes or misunderstandings as to the care of patients, written charges of the same shall be submitted to the County Poor Directors who shall have the assistance of the Medical Advisory Committee of the Northampton County Medical Society in all matters in which the said Directors desire their aid.

Qualifications of the Recipients of Medical Service

1. All persons known to be on accredited lists of the County Poor Directors shall be eligible to receive medical aid and attention.

2. In each instance a proper and regular form or order must be issued by the County Poor Directors or their representatives authorizing the doctor to render medical attention in a given case.

3. Only in a dire emergency shall a physician render a service without being fortified with the above-mentioned instructions or orders.

(a) Before second visit is made, a confirmation order must be obtained or within 48 hours.

4. In the course of treatment of patients under this regulation, the general facilities available for free care and service in given communities shall be utilized.

5. If it becomes necessary to transfer a patient under treatment to one of the hospitals treating patients from our County, notification should be made to proper representatives of the County Poor Board before said transfer is made.

6. Only in a dire emergency shall this transfer be made without notification to the proper authorities.

7. When the patient is admitted to the Hospital, the County Poor Board is no longer responsible for medical service rendered by an individual practicing physician.

8. In order to maintain the traditional family-physician relationship, wherever possible, the patient shall be permitted to call the physician of his or her choice, provided the said physician desires to practice under these rules and regulations.

Treatment in Acute Illness

1. In cases acutely ill, medical care shall be limited to not more than 2 weeks or 10 visits, with a maximum fee of \$20 for that service.

2. During the period of time in treating a patient under the maximum fee limitation, the physician shall furnish a reasonable amount of drugs and combinations of drugs to aid and assist in the recovery of the patient.

3. If any unusual medicines are required, they shall be authorized only after proper request is made to the County Poor Directors, or such other agents as they may delegate.

4. Under these rules and regulations, the treatment of patients shall mean:

- (a) The diagnosis.
- (b) The management.

(c) The furnishing of reasonable medicines and supplies.

Treatment in Chronic Illness

1. Prolonged chronic illnesses, such as chronic heart, chronic asthma, chronic rheumatism, or diabetes, or any disease which has continued over a period of time with only a moderate degree of recession and without a complete recovery, shall be paid for by one visit per week only.

2. However, if the patient, due to unusual seriousness of the chronic disease, shall need more frequent visits, this individual case shall be submitted for proper determination to the County Poor Board, or the proper agencies.

3. Insulin if needed shall be requested by the physician from the County Poor Board, or their agents.

Treatment in Obstetric Care

1. Obstetric care in the home shall be construed to mean:

(a) A reasonable number of prenatal visits and attention.

(b) Delivery in the home by the physician.

(c) The average number of postnatal visits.

2. The patient shall have the choice of obstetric care in the home or in the hospital.

3. If home conditions involve undue risk, or any condition of the patient lends more than reasonable seriousness to delivery in the home, the patient shall be requested to submit to delivery in one of the institutions rendering such service to the people in our County.

4. All hospital doctors treating such a delivery shall not be compensated under this regulation.

5. In the delivery of the indigent poor in their homes, it shall not be construed, in this regulation, that supplies incident to the delivery, whether they be dressings, cotton, or medication, shall be paid for by the County Poor Directors, but all supplies incident to such delivery shall be furnished by the obstetrician in attendance.

Schedule of Fees

1. Bills shall be rendered to the County Poor Directors at the County Home, Nazareth, Pa., before the 25th of each calendar month and shall include:

(a) The number of visits.

(b) The dates made.

(c) A diagnosis.

(d) The condition of the patient at termination of treatment.

(e) The name and address of the patient.

2. For an authorized home visit, including medicines and supplies, the maximum fee shall not exceed \$2.

3. For an authorized office visit, the maximum fee shall not exceed \$1, which includes medicines and supplies.

4. For authorized obstetric care in the home, the maximum fee shall not exceed \$20.

5. No patient may be considered eligible to be treated as an acutely ill patient oftener than once in each three months of a year.

6. Examinations for commitment of mental cases shall be paid for at the rate of \$2.50 per physician, 2 physicians being required.

The above is an *Agreement* set forth in rules and regulations for the care and attention of the indigent poor in Northampton County.

Said rules and regulations shall establish a working basis between the members of the Northampton Medical Society and the County Poor Directors of Northampton County.

The following letter accompanied the above Rules and Regulations sent out to each member of the Northampton County Medical Society by their Public Relations Committee. Attention is especially drawn to the entire second paragraph of the letter.

To the Medical Profession of Northampton County:

Herewith you will find a set of rules and regulations governing the medical care of the indigent of Northampton County on the lists of the Poor Directors. The rules are self-explanatory but should be read carefully so that there will be no misunderstanding as to schedules of fees, supplies of drugs, etc.

The County Society, through the Public Relations Committee, makes a special plea that the profession act ethically in these cases. The physician is to be compensated in some measure for the work he does in the care of the indigent, but it is to be understood that the conduct of the cases and the charges for same will be closely scrutinized by the Poor Directors and their advisory medical committee from our own ranks. We wish to prove to the public that the indigent poor will receive better medical care at very little, if any, increased cost to the taxpayer on the basis of a family physician relationship rather than the old contract practice scheme. We are on our mettle, so to speak. Let's show them that we are human beings who are to be respected rather than suspected.

Respectfully,

PUBLIC RELATIONS COMMITTEE,
NORTHAMPTON COUNTY MEDICAL SOCIETY.

STATE BOARD EXAMINATION

The following medical and surgical questions were given by the Pennsylvania State Board of Medical Education and Licensure at the midwinter examination held in Philadelphia, Jan. 2 to 4, 1934:

Physiology, Pathology, Bacteriology, and Physiological Chemistry

1. Outline the physiologic and the anatomic abnormalities that are apt to supervene by ten years of age in a child afflicted with an occluded nose.

2. From a biochemic and physiologic point of view, what features should determine the value of various foods? Illustrate.

3. Discuss briefly the rôle of the pituitary gland in health and in disease.

4. What is the physiologic significance (a) of vomiting? (b) of syncope? (c) of progressive exophthalmos?

5. What tests elicit the integrity of the kidneys? Explain what each test shows.

6. Give reasons for spinal punctures. Give the nature and the significance of abnormal findings in the cerebrospinal fluid.

7. What laboratory studies are essential to the welfare of a patient suffering (a) from jaundice? (b) from diabetes mellitus? (c) from angina pectoris?

8. Describe the central lesion and give the alteration in function found (a) in tabes dorsalis; (b) in hemiplegia; (c) in hemianopsia.

9. In laboratory investigation, what peculiar feature will identify the bacteria which cause tuberculosis? gonorrhea? meningitis? tetanus? diphtheria?

10. What is the significance of a high leukocyte count? Of a low leukocyte count? Illustrate by citing conditions in which each is apt to occur.

Diagnosis, Symptomatology, Medical Jurisprudence, and Toxicology

1. Discuss the toxicology of chloroform and ether.
2. Discuss the differential diagnosis of epidemic encephalitis and tuberculous meningitis.
3. Name the diagnostic features of spontaneous pneumothorax.
4. Describe (a) conjunctival injection; (b) pericorneal injection.
5. Describe the clinical course of acute catarrhal rhinitis.
6. Give the diagnostic features of granulocytopenia.
7. Discuss the diagnosis of congestive heart failure.
8. Name the pre-eruptive symptoms of the exanthemata.
9. Name five common cardiac irregularities.
10. Give the physical signs of aortic aneurysm.

Gynecology and Obstetrics

1. Discuss the symptomatology, the diagnosis and the treatment of acute pyelitis occurring during pregnancy.
2. Discuss the management of labor in a face presentation.
3. Differentiate a retroverted gravid uterus, three month's pregnancy, and a fibroma of comparable size in the posterior wall of a nonpregnant uterus.
4. A woman who had a normal period six weeks ago complains of slight bleeding and pain in the abdomen. Discuss the diagnosis and treatment of two of the most probable conditions.
5. Discuss the pathology in sterility caused by gonorrhea both in the male and in the female.
6. Give signs and symptoms of prolapsus of the bladder. Discuss its treatment.
7. Give etiology, diagnosis, and treatment of pruritus vulva.
8. Differentiate carcinoma and fibroma of the uterus. Discuss the treatment of each.
9. A woman in labor for many hours is making no progress and is becoming exhausted. Discuss your management of the case.
10. Name and describe three varieties of ovarian cysts.

Anatomy and Surgery

1. Discuss minutely the sacrum and discuss the condition known as sacro-iliac sprain; outline its symptoms, diagnosis and treatment.
2. Describe a fracture through the body of the os calcis. Outline its treatment.
3. Discuss the modern treatment for varicose veins by the injection method.
4. Discuss the relative value of ether, chloroform, and nitrous oxide for general anesthesia.
5. Describe shock due to injury, and discuss its treatment.
6. Give the diagnosis and treatment of fistula-in-ano. Name and describe anatomically the muscles of the ischio-recto-perineal region that might be involved.
7. Discuss in a general way the present effectiveness of radiotherapy in the treatment of malignant disease.
8. Anatomically describe the wrist joint and outline treatment for the upward and backward dislocation of the same.
9. Discuss infection of superficial wounds as well as their treatment.

10. Describe thrombo-angiitis obliterans (Buerger's disease) and discuss its treatment.

Practice, Materia Medica, Therapeutics, Hygiene and Preventive Medicine

1. Discuss heredity from the Mendelian standpoint or theory. Name five conditions transmitted by heredity.
2. Classify the dysenteries. Outline in detail the clinical picture, and the treatment of the amebic form.
3. Define hematinics. Give the official preparations without abbreviation, and the dosage of each.
4. Give the period of incubation in ten infectious diseases. Why is this knowledge of importance?
5. Discuss personal hygiene from the standpoint of heredity, eugenics, occupations, and community life.
6. Outline the duties of a health officer in handling an outbreak of variola.
7. Discuss allergy. Cite instances of allergic phenomena. Outline the principles of treatment in cited illustrations.
8. Discuss scarlet fever in systematic outline, from period of invasion to termination, including principles of treatment.
9. Outline the general management in the case of a man, age 40 years, with occupational pulmonary disease, such as anthracosis, silicosis and similar affections, in respect to immediate and further care during his expected lifetime. What are some of the usual causes of termination of life in these cases?
10. Describe the clinical course of acute rheumatic fever, as occurring in a girl of ten years. Outline the dangers to which she later may be exposed during each decade of life-expectancy up to the age of fifty.

UNIFORM AUTOMOBILE LIABILITY SECURITY ACT

Pennsylvania motorists will find their applications for renewal of motor vehicle operator's licenses for this year different from those of previous years. This year's applications will contain the most important provisions of the new Uniform Automobile Liability Security Act which is effective.

The purpose of this act is to protect the public against damage by operators whose records show carelessness or disregard of law. Motorists must state on their applications this year the answers to these questions: In how many accidents were you involved last year (meaning 1933)? What was the amount of damage to motor vehicles which you operated at the time of accidents? How much was claimed by or paid to others for personal injury? How much was claimed by or paid to others for property damage?

Failure to answer these questions correctly will result in a two-year suspension of the operating privilege.

Proof of a motorist's financial responsibility will be required by the State when any motorist is involved in 2 or more accidents while operating a motor vehicle in the 12 months preceding his application for an operator's license when such accident results in personal injury or property damage aggregating \$200 or more, excluding injury to himself or herself, and damage to the motor vehicle driven by him or her.

Proof of financial responsibility will also be required before an operator whose license has been suspended or revoked can be reinstated or when suspension resulted from failure to satisfy any judgment in excess of \$200 arising out of an account occurring prior to Jan. 1, 1934.

Proof of financial responsibility constitutes an adequate insurance policy, bond or cash, in the amount of

\$11,000 deposited with the Secretary of Revenue. In any case the insurance or bond must be conditioned for the payment of \$5000 for any one person injured or killed; \$10,000 for the injury or death of 2 or more persons, and \$1000 for property damage.

Many believe the new Liability Law to be a weak act. That the individual must have been involved in an accident, a lawsuit, and had a judgment awarded before it begins to take effect. That the motorist must pay the judgment in 15 days or lose both his owner's and driver's license. It would appear that the law can be evaded with comparative ease; the car of the offender may be put in a relative's name and registration obtained, and the driver take a chance on driving without a permit.

The progress of highway safety in Pennsylvania will be watched closely under the new law. If there is shown little or no improvement the need for a stronger law will be clearly demonstrated.—*Editor.*)

COMMENTS AND EXCERPTS

Science and Research

As the result of studies extending over a 15-year period of the peculiar properties of certain benzyl esters and benzyl alcohol made by Dr. David I. Macht, of Baltimore, a new drug that is said to relieve spasms and colicky pains in the abdomen was recently described by Dr. Macht. The new drug is brom-hydroxy-benzyl alcohol, or bromsalizol. This drug may also be used as a local anesthetic.

According to *Science News Letter*, Drs. William C. Langston and Paul L. Day, of the University of Arkansas School of Medicine, have reported that cataracts and other disturbances of the eyes can be brought about in rats and mice by a diet lacking in vitamin G. These investigators also found that feeding animals vitamin G retarded the development of the cataract, even preventing its maturing, but did not cure the condition.

At the recent meeting of the American Society for Tropical Medicine, held in Richmond, Va., Drs. Louis F. Bishop and Louis F. Bishop, Jr., of New York City, in a discussion of the advantages of cure resorts in the tropics, claim that patients suffering from inflammatory rheumatism and heart disease may be benefited by a tropical climate. Dr. Bishop's interest in the health advantages of tropical climates was prompted by the absence of inflammatory rheumatism in the tropics, which is testified to by many observers. Dr. Clarence A. Mills, of the University of Cincinnati, stated that southerners who migrate to the north are more susceptible than northerners to arteriosclerosis, and presented figures to prove the point.

An analysis of the human voice as shown in the tracks on a sound film is claimed to give a clue towards the identification of the disease, disseminated sclerosis, according to an investigation at the Hospital for Nervous Diseases, London. In an article in *Nature*, Miss F. Janvrin explains how the vowel "Ah" in a normal voice is recorded on the sound film as a series of spiky protuberances, in groups, each beginning with a sharp upward jerk. This upward jerk results from the jet of air from the glottis; the space between the upward jerks gives the period of laryngeal action. If this period changes slowly it signifies that the muscles controlling the tension for laryngeal action are well coordinated. Should the upward jerks follow one another at irregular intervals, it signifies the patient is suffering

from ataxia, and that the muscles controlling the action of the larynx are weakly coordinated.

How Doctor for Byrd Expedition II Protects Health and Vitality of Men

Guy O. Shirey, chief medical officer of the Byrd Expedition II which with a crew of 38 men will be tied up in the Antarctic ice for more than 2 long winters, was selected by Admiral Byrd because of his wide experience and knowledge of how to take care of men—how to keep them fit under almost unbelievably rigorous conditions.

Charles H. LaWall, head of the firm of LaWall & Harrison, food chemists, Philadelphia, and dean of the Philadelphia College of Pharmacy, and who has published a number of monographs on food subjects of which the most recent one is entitled *Eating in All Languages*, because of his interest in scientific nutrition, has been interested especially in Dr. Shirey's plans for bringing every man back from this hazardous adventure safe and sound.

Naturally, one would think that medicines would be Dr. Shirey's main concern, and they are important, but he believes in the good old adage that "an ounce of prevention is worth a pound of cure." The first thing necessary, and the most vital thing of all, is to keep the men well, and so to build up their resistance that they will be able to resist the most severe cold and undergo the greatest hardships—and stay not only well, but healthy and vigorous.

First of all, this requires good food of the right kind to fulfill every possible requirement. Dr. Shirey believes, as Napoleon believed, that an army travels on its stomach; but it happens that Dr. Shirey's food problems are much more difficult than Napoleon's food problems were because they are so complicated. For instance, when a dog sledge journey starts out over the ice, the food supply carried along must furnish the greatest amount of food value and stimulation with the least possible bulk and weight. It may happen that the ice parts behind them and, the return being cut off, the crew is forced to camp on the ice for an indefinite period awaiting relief, during which time human life may depend upon the rationing of a few precious ounces of food to each man.

Dr. Shirey named the articles in his regulation diets for such expeditions away from their base camp in Little America. Among them are some of the most common everyday foods: Biscuit, oatmeal, dried milk, butter, sugar, salt, tea, coffee, and cocoa. In addition Dr. Shirey specifies 3 articles of diet particularly adapted for men undergoing extreme cold and severe hardships. In emergencies, a ration of the following without other diet will maintain and stimulate greatly the vigor of the men:

Pemmican (a concentrated food consisting approximately of 50 per cent fat and 50 per cent dried meat protein, first prepared by the Indian tribes of North America from buffalo meat or venison).

Erbswurst (a concentrated food composed of pea meal and bacon, which originated in Germany).

Bovril (a highly concentrated beef beverage containing highly concentrated yeast extract, which originated in England, and is now coming into use in America as a stimulating hot drink, and used in the diets of college athletes, etc., for its energy-giving qualities).

In the selection of supplies for the trail, judgment of the items was based on what other explorers of the top and bottom of the world have used successfully. Nansen, in the Arctic, and Scott and Shackleton, in the

Antaretic, used practically the same list of solid foods, together with the latter named concentrated beef beverage.

Fuel also must be light in weight and, therefore, concentrated. So, for heating food and beverage on the trail, little cubes called "Meta," obtained in Switzerland, will be used as the emergency heat. Its advantages being that it is easily kindled, burns with a smokeless flame, and leaves no residue or ash. It is a definite chemical compound formed by the union of ammonia and formaldehyde.

An interesting factor in safeguarding the health of expedition members is the material in a little bottle which Dr. Shirey brought back from abroad. There are only 2 ounces of it and the color is greenish-yellow. This is a very recent discovery of science, and it is said that it represents sufficient Vitamin C for the whole party for several years. When you think how many bushels of fresh fruit it would require to supply the members of the expedition with Vitamin C, the reason for taking this newly discovered concentrate along is obvious.

Vegetables will be taken along but they will not look much like those fresh from the garden because the water content has been removed. A scientific process of dehydration developed by Dr. Paul A. Bonquet, professor of chemistry of food and nutrition at the University of Southern California, not only will preserve the vegetables but also will retain their cellular structure and chemical composition so that when prepared for the table they will be the equivalent of the fresh vegetables in flavor and nutritive qualities.

Not so many years ago the dangers incurred in the Arctic and Antarctic regions by such an expedition meant malnutrition and death to many of its members. Now, mostly through the knowledge of scientific nutrition, sickness is largely prevented and death defeated. In his former expedition to the Antarctic, Byrd did not lose a single man, and no one suffered even serious illness. And in this great adventure, Byrd Antarctic Expedition II, every possible precaution is being taken to maintain this record.

MEDICAL ECONOMICS

Office of Secretary

Dr. C. L. Cummer, president of the Ohio State Medical Society, has issued a foreword to his state society regarding the New Year. (*Ohio State Medical Journal*, January, 1934.) The New Year brings with it change in the officers of the component county societies. He lays stress upon the importance of the office of secretary, not only to the local society but its relationship to the state society itself. The need for members to support their officers to the best of their ability was stressed; that meetings should be well attended, especially when there is a guest speaker. Nothing is more embarrassing than for a presiding officer to induce a speaker to travel many miles to attend the meeting, and only a corporal's guard present. He urged that dues be paid promptly to the secretary that he may remit to headquarters the per-capita dues for the association, thereby lightening the labors of the secretary and keeping the member in good standing in order that the member may enjoy all the important rights and privileges appertaining to membership.

Censors Report on Poor Board Practice in the City of Wilkes-Barre.—Your Board of Censors has given careful thought to the question submitted to them at the last meeting of the Society, and we have come to

the following conclusion, namely, that it involves, not only contracts of members of this Society with Poor Boards, but, also, contracts with Corporations, School Boards, Lodges, Insurance Companies, and Departments of the State Government.

We, therefore, feel we should not discriminate against a contract made by one official body without including the others.

Signed: R. A. Gaughn,
G. E. Baker,

Dec. 21, 1933.

Charles H. Miner.

The above is the report of the censors in response to the resolution referred to them by the Society on recommendation of the Committee on Public Relations. This was in connection with the plan of the Committee on Public Relations to distribute the medical care of charges of the Central Poor District among neighborhood physicians, allowing free choice to the poor of their physician, and to restore the physician-patient relationship. It was a plan which antedated the State-wide plan for medical care of those on emergency federal relief, and was almost identical with that plan as it is now in effect, and it will stand as a monument to the zeal and foresight of the Committee on Public Relations when the year 1933 is history.—*Luzerne Co. (Pa.) Medical Bulletin*, January, 1934.

Cost of Medical Care to Average Family.—A survey of illness costs among 36,000 employees of the Metropolitan Life Insurance Company, and members of their immediate families, would indicate that the cost of medical care varies from zero to more than the year's income. The principal features of this survey are reviewed by Dr. Thomas Parran in the November issue of the *Modern Hospital* and the findings of the survey compared with those of the Committee on the Costs of Medical Care which studied the costs of illness among various population groups.

The known incomes of the group studied by the Metropolitan Life Insurance Company were above those of the average families studied by the Committee on the Costs of Medical Care, ranging between \$2000 and \$5000. In both groups studied, approximately 85 per cent of the families reported doctors' services; approximately 50 per cent, dentists' services; and 20 per cent, hospital service.

Among Metropolitan families, 89.1 per cent purchased drugs; 8.8 per cent paid for nurses' services; and 21.5 per cent reported doctors' services.

Among families studied by the Committee on the Costs of Medical Care, on the other hand, these percentages were 97, 17.3 and 13.4, respectively. This discrepancy may be explained by the difference in technic used in the 2 surveys.

That the cost of medical care varies directly with family income is confirmed by the Metropolitan and the Committee on the Costs of Medical Care findings. About 3 per cent of income was expended on medical care regardless of size of family.

Per-capita costs decreased from \$47.01 in families with no children to \$13.44 in families with 6 or more children. In three-fourths of the cases of sickness studied individually, the expense per case was less in families with 6 or more children than in families with no children or with only one child.

In both investigations, it was found that the minor respiratory diseases and care of the teeth were the primary factors in sickness costs. Conditions responsible for the largest combined expense in order of importance were care of the teeth, puerperal conditions and minor respiratory conditions.

The most expensive single illnesses were due to diseases of the bones, cancer, diseases of the lungs, hernia, and intestinal obstruction, tumors, appendicitis, ulcers of the stomach and intestines, and goiter.

The average expense of a case of hospitalized illness was \$163. The illnesses varied in cost from less than \$10 to more than \$5000 per case. In one-third of the cases the expense was greater than the average; in one-quarter, greater than \$200; and in almost one-fifth, larger than \$250 each.

In one-quarter of the cases, hospitalized illnesses accounted for 90 per cent or more of the total family expense for medical care; in two-fifths, for 80 per cent or more; and in two-thirds, for 50 per cent or more.

Overproduction in the Profession.—Dr. F. J. Savage, president of the Minnesota State Medical Association, is of the opinion that the steady overproduction of physicians is the biggest problem now facing the medical profession. He appreciates that Minnesota cannot take the initiative to settle this question for the entire country, but that something should be done so far as Minnesota is concerned. He considers that it would be unreasonable to expect Minnesota medical schools to initiate any movement in this regard, believing that the final decision rests with the Department of Administration and the Board of Regents; that it is obviously unfair to do the weeding process after the individual has completed his course in medicine; that in the final analysis a definite quota system of selection of those to be allowed to start the study of medicine seems to be the most fitting solution of the problem.

The Future of the Medical Profession in the Next Twenty-Five Years.—This is the title of the presidential address read by Dr. William H. Speer before the Medical Society of Delaware, Sept. 26, 1933. His conclusions are as follows: The depression is not entirely to blame for conditions, but changing times and educating the public are at fault as well, along with a less amount of sickness; preventive medicine must be practiced to a greater extent; companies must cease competing with the medical man; educational requirements will be so rearranged as to meet the needs in different lines; the nursing profession will likewise change its requirements according to the needs of the people; those desiring to class themselves as specialists will be required to show their qualifications, and only those qualifying will be allowed to call themselves such; the clinics and dispensaries must treat only those who are known to be deserving, and the physician will be the one to name this condition; medical societies will have to meet these problems, and recognizing them, change their laws accordingly; laws will have to be stringent enough to make it possible to prohibit medical racketeers, otherwise known as quacks and fakers, from practicing; the public will have to be educated to seek medical advice so that preventive medicine can be practiced; and unless these things are done, the income from this profession to the general practitioner will be so small that there will be, except in the cities, a very great lessening in the number of those practicing this profession.—*Delaware State M. J.*, October, 1933.

Shall Our Ideals of Medicine Change?

In the *Virginia Medical Monthly* for December, 1933, Dr. R. D. Bates, president of the Medical Society of Virginia, has issued the following message:

Today the moorings of the past seem to be slipping. The ideals of many are trending towards socialism. This tendency seems worldwide and the effort is being

made from outside and also from inside the profession, it seems, to some extent, to socialize medicine.

It seems that by far the majority of the medical profession at this time is opposed to state medicine, as destructive of the individualism of the doctor, and inimical to the welfare of the public. Now there should be a well-defined line where the medical duties of the state should stop, and where the rights of the private practitioner should begin.

In order that the rights of the individual physician should not be interfered with, it is essential that two things be accomplished; namely, those who have been in practice for years should endeavor to keep up with the advances that are being made in medicine, that are worth while, and there should be thorough organization. Every practicing physician should be a member of his local and state societies, and should as far as possible attend the meetings, especially of the local society. New books and journals are helpful and attendance at medical meetings is conducive to further study.

By thorough organization, much may be done to curb hostile public sentiment, should such conditions arise. By unity of purpose and thorough organization, a powerful influence may be exerted to check socialistic ideas as applied to medicine, and the welfare of the public in matters pertaining to medicine, may be accomplished successfully without outside influence.

Opportunities for postgraduate instruction and valuable clinics are given for the benefit of the practitioner all over the state. Let all who can help make these educational meetings successful by attending them.

In conclusion, it may be said, that as far as this state is concerned, the Commissioner of Health is working in coöperation with the practitioner, and is doing everything possible not to antagonize his interests but to be of assistance to him.

State Medicine in Canada

From Chatham, Ontario, we get the interesting news that state medicine has been in operation for over forty years in that district. They seem quite pleased with their system in Chatham. The Ontario government pays two thirds of the medical services.

Mayor Davis makes the following statement: "The medical profession generally was relieved of the burdens of both attendance and of supplying medicine to indigent persons. The city physician took care of all those who were unable to pay and everything has been working smoothly up to the present. The Ontario government has proposed a new step whereby they pay the medical profession a margin of profit on the treatment of poor patients. This will relieve the burden of some of the Chatham physicians."

In St. Catharines, Ontario, the doctor receives one-half the usual fee, the city contributes one-third of the doctor's bill, and the province two-thirds. This is according to Dr. E. D. Coutts, a member of the city council. Dr. Coutts is of the opinion that the doctors are satisfied with this arrangement.

The whole question of state medicine is receiving much attention throughout Canada. Some are in favor of this half-fee system, while in other places they do not wish to change. Evidently they are trying to work out some scheme of state medicine in Canada in order to take care of their poor patients.

We are not quite up on what they are doing in Canada in the way of free hospitals. It is possible that conditions are quite different there.—(Editorial) *M. J. & Record*, Nov. 15, 1933.

Additional Articles on Medical Economics

Medical Service to Paupers—Edgar S. Buyers, M.D.—p. 365.

A Modern Responsibility of a County Medical Society—p. 411.

Enforced Idleness and Its Effect on Health—p. 419.

Berks County—p. 431.

Dauphin County—p. 433.

Mifflin County—p. 441.

Philadelphia County—p. 441.

Warren County—p. 445.

HOSPITAL ACTIVITIES

Patient's Impression.—According to an article in *Hospital Management*, for December, 1933, a professional woman recently told one of her friends, a hospital auxiliary member, about her impressions of a two-weeks' stay in a hospital. To quote this professional woman:

"There were 2 things that occurred constantly that annoyed and irritated me and, I feel, actually tended to retard my recovery. The first and most harmful, in my opinion, was the practice of awakening me each morning at 7 o'clock, regardless of whether I had tossed about, sleepless, until long after midnight. Of course, I realize that hospital routine must be considered, but I felt that sleep was doing me more good than anything else, and the awakening after only a few hours' sleep certainly seemed an act that tended to make my condition worse. The other thing to which I objected was the food, or rather the indifference shown to foods that I disliked and repeatedly said I didn't want. Apparently absolutely no effort was made to meet my wishes in this matter, although I was paying for an \$8 a day room."

The reactions of a patient of this type, who through her work makes contact with many organizations and influential individuals, should be studied by every hospital executive. *Hospital Management* states that while certain routine may not be changed to fit a special condition, yet efforts should be made to make patients of more than average intelligence understand why requests may not be granted, and thus permit the patient to leave the hospital with a better feeling toward the institution.

Legal Procedure for Registration and Disposal.

—In the department, "Questions and Answers," of *Hospital Management*, December, 1933, the following queries are answered: What is the legal procedure for registration and disposal of the body in case of (1) stillborn infants; (2) recent or remote injury; (3) illegal operation?

(1) After five months a baby born dead is a stillborn. Birth certificate and death certificate should be filled in and signed by the doctor, and the body released to parents or mortician who should bury it.

(2) The homicide branch of the police department should be notified.

(3) The physician in charge should have consultation; get statement from patient and a relative, if possible; sign a statement that he himself had nothing to do with the condition of the patient upon admission to the hospital; and file all statements and consultant's conclusion with the patient's record. Then the physician should proceed as in an ordinary case.

PHYSICAL THERAPY

Effective Use of Ultraviolet Rays in Treating Tuberculosis.—Dr. Philip B. Matz, chief of medical

research of the Veterans' Bureau, states that the Veterans' Bureau has had considerable success in treating tuberculosis of the bones, glands, and other types of tuberculosis which do not affect the lungs, by means of ultraviolet radiation.

Dr. Matz explains that too many hazards are involved to use this treatment for lung cases. The Veterans' Bureau, however, is watching the development of several experiments along this line.

A recent lamp, designed for ultraviolet radiation treatment of tuberculosis of the lungs, is so small that it can be used within the lungs.

Combined Arsphenamine—Ultraviolet Therapy.—To quote an article published in the *Journal of the American Medical Association*:

The possibility of increasing the therapeutic effects of arsenicals by the simultaneous use of ultraviolet rays has been extensively studied during the last three years by European investigators. Orlow and Lewinson, of the venereal institute at Moscow, studied the curative effects of combined arsphenamine-ultraviolet therapy on experimental syphilis in rabbits. They report that ultraviolet radiation increases the spirocheticidal effects of neoarsphenamine and does not demonstrably increase its toxic effects. It causes substerilizing doses of the arsenical to become therapeutically effective. They unhesitatingly recommend its clinical trial. A definite rationale for this combination therapy has been suggested by other investigators. Roskin and his co-workers, for example, state that exposure of mice to ultraviolet radiation causes a new immunity factor to appear in the blood stream. This "factor" is without direct effect on trypanosome infections. Transferred to non-irradiated mice, however, the factor greatly increases the trypanocidal action of arsenicals. From a study of splenectomized and endothelial-blockaded mice they believed that the new factor is formed or secreted by the reticulo-endothelial cells.

Diathermy in Angina Pectoris.—Hyman applied diathermic currents to the heart in a series of 87 patients presenting symptoms of chronic coronary thrombosis whose electrocardiograms showed electrodynamic deviations of the terminal ventricular complex usually associated with this condition. In the majority of instances, symptomatic relief was obtained even when standard methods of drug therapy had failed to produce any lasting benefit. Simultaneously with the clinical improvement in the patient there has been a change in the electrocardiograms; the previous negativity of the T-waves is first lessened and then a normal positive deflection is obtained. The apparent explanation of the return to a normal electrodynamic status of the heart lies in the fact that exposure to diathermic current increases blood flow to an impoverished myocardium and that, with a disappearance of the partial anoxemia, the myocardium tends to return to its former normal physiologic mechanism. The records indicate that no patient has been treated earlier than 6 months or longer following the last seizure. The author is of the opinion that diathermic therapy will do more harm than good in the acute and subacute stages of coronary disease and that there is more or less hazard to be anticipated in actively exposing such hearts to the diathermic current. He knows of a fatal instance in which diathermy was used on the sixth day of a coronary attack. In the subacute stage of myocardial infarction when a negative T-wave has already developed in one or both of the significant leads, exposure of the heart to diathermy may increase the amplitude and negative activity of the T-wave. The

author saw 4 such instances in patients who were subjected to too early diathermic treatment.—*J. A. M. A.*, Sept. 30, 1933.

MEDICOLEGAL NOTES

Discrediting Testimony of Medical Witness.—According to an article published in *Medical Record*, Jan. 3, 1934, if a medical witness refers to a textbook as his authority, the book referred to may be used to contradict him, the Michigan Supreme Court holds, *De Haan v. Winter*, 262 Mich. 192, but the cross-examination in a malpractice action of the defendant's medical witness as to statements in a medical journal article and a report to a surgeon's society was held reversible error as discrediting the testimony of the witness by hearsay testimony of the written or spoken opinion of other persons whom the jury have no means of examining, and so creating an impression on the jury that the opinion of the witness is not in accord with eminent medical opinion or authority.

Liability of Pharmacists for Negligence in Filling Prescriptions.—The *New York State Journal of Medicine* calls attention to the fact that the duty of a pharmacist is not only to fill a prescription correctly, but he is under a further obligation in cases in which he is not certain of the exact meaning of a prescription to inquire from the prescribing physician as to the contents thereof. The case in point was in one of the western states.

A physician wrote a prescription for "Strontium salicylate 4 ounces (Wyatt)." Undoubtedly the physician intended Wyeth's, a preparation of effervescent strontium salicylate compound, composed of about 10 per cent of that drug. It appears that the druggist substituted pure strontium salicylate, manufactured by Parke, Davis & Company, which drug is about 10 to 12 times as powerful as Wyeth's compound. It was about that the patient had taken within 16 hours about 720 grains of pure strontium salicylate, with all its untold effects, whereas 60 grains in 24 hours is ordinarily considered the maximum dose. A verdict was awarded against the druggist by the lower court and he appealed to the higher court which affirmed the judgment of the lower court.

Decision Regarding County Hospitals.—In *California and Western Medicine*, for November, 1933, the following important County Hospital court decision is detailed: The supervisors of the Kern County (Calif.) Hospital lose in policy injunction suit. The decision prohibits Kern County from taking pay patients at the Kern General Hospital in competition with privately owned hospitals, and the Superior Court ordered that the County Board of Supervisors be enjoined from taking pay patients at the county hospital and others except those specifically defined by law. It is understood on good authority that the county will appeal the case and carry it through to the Supreme Court. It appears that 10 local doctors originally brought suit against the Board of Supervisors seeking a restraining order to prevent the county from accepting pay patients at the County Hospital, patients who were given hospitalization at cost prices. The board pursued this policy as well as taking care of indigents and those unable to pay for hospitalization.

The following paragraph holds the key to the court's ruling, to the effect that the province of the hospital in question is to care for indigents and those others specifically prescribed by law. The paragraph is as follows:

"Indigent sick, dependent poor, psychopaths, narcotic addicts, habitual inebriates, those suffering from active tuberculosis, physically defective persons under 18 years of age in cases where parents are unable to care for them."

Alliance with Unapproved Organizations.—The Indianapolis Medical Society, at its meeting on Oct. 3, passed a resolution to the effect that no member of the society may be allied with organizations whose purpose it is to supply medical service to a group of individuals unless the organization is approved by the executive committee of the Indiana State Medical Association, and that any member who takes part in an unapproved organization of the health insurance type shall be automatically suspended from membership in the county and state societies and cannot be reinstated until his connections with the unapproved organization are severed.—*J. Indiana M. A.*, December, 1933.

INDUSTRIAL MEDICINE

Ratio of Violent Deaths Among Men and Women.—Statisticians of the Metropolitan Life Insurance Company point out that between the ages of 15 and 50 four times as many men as women die from violence. This age period represents that period of life in which men are most exposed to the hazards of industry and of civil life. It was also found that at this age twice as many men die from violence as from tuberculosis; and that comparing the death rate among men and women at this age, the death rate among men from accidents, homicides, and suicides was $3\frac{1}{2}$ times that among women from childbirth causes. To quote these statisticians: "We have heard much during recent years regarding the needlessly high maternal mortality rates in our country, but the question may well be raised whether the regrettably high maternal death rate is not far exceeded in serious consequences for society and the family by the high and largely avoidable death rate from violence of various sorts among male wage earners."

Aid in Diagnosis of Occupational Disease.—The Bureau of Labor Statistics Bulletin No. 582, "Occupational Hazards and Diagnostic Signs," recently issued, contains information regarding hazards of occupations and the symptoms of the diseases they cause. This bulletin has been prepared as a handbook to aid physicians in general practice, industrial hygienists, safety engineers, and any others who come in professional contact with those who are engaged in industrial processes. The nine major health hazards of employment listed are: Abnormalities of temperature, compressed air, dampness, defective illumination, dust, infections, radiant energy, repeated motion, pressure, shock, and poisons.

As an aid in detecting the hazards and their effects on the worker, two lists are included in this bulletin. The first list consists of the more hazardous occupations arranged alphabetically. The second list consists of hazards together with their effects or symptoms as well as the occupations affected.

Silicosis.—The Industrial Health Section of the Welfare Division, of the Metropolitan Life Insurance Company, New York City, has recently published a booklet on this subject. To quote the *Foreword* to this booklet: "In view of the prominence given to silicosis as an occupational disease, this review of the subject aims to present a brief description of the disease, its causes, and complications, and a more detailed discussion of measures designed to prevent its occurrence."

Under the heading "Preventive Measures," are included: Segregation of dust-producing operations; dust control; ventilation; protective devices; good housekeeping; and medical supervision.

Among the devices designed for the protection of the individual worker against dusts, by far the most important is the positive pressure respirator. In particularly dusty operations, such as sandblasting and metal grinding, in which the particles may injure the face, the helmet type of respirator is preferred. Whatever type of air mask is worn, it is essential that the apparatus be provided with an adequate air supply drawn from a pure, dust-free source. Some authorities recommend as much as 6 cu. ft. a minute; others think that respirators constructed on modern principles are efficient if used with but 1 or 2 cu. ft. of air a minute. The source of air supply is important. Respirators provide a practical means of protection for workmen engaged in dusty operations carried on only occasionally or for short periods of time.

Any effective program of preventive work in industry must include the individual workman. An essential requirement where silicosis is a hazard is that physical examinations of workmen should be made prior to employment and at regular intervals thereafter.

PUBLIC HEALTH

Leprosy in the United States Is Waning.—Continental United States contains only about 800 victims of leprosy; in Oriental countries there are thousands of victims. Four hundred lepers are in the Public Health Service leprosy hospital at Carville, La., and the remaining 400 are scattered throughout the country; all are registered with health authorities. These official records show that leprosy is reduced in prevalence each year in the United States. The Leonard Wood Memorial for the Eradication of Leprosy has undertaken extensive research, under private auspices. Despite the fact that no certain cure for leprosy has been developed a number of cures are made each year at Carville.

Enforced Idleness and Its Effect on Health.—What is believed to be a pioneer attempt to compare health conditions among the employed and the unemployed portions of a given population group was made public recently by the New York Association for Improving the Condition of the Poor in "Idleness and the Health of a Neighborhood"—the report of a social study of the Mulberry Health Center District made under the auspices of the Association.

Although idleness is discussed at some length, this study does not relate primarily to employment status. Fundamentally, it is an effort to measure the prevalence of sickness at different economic levels in a particular neighborhood during a time in which living standards of families and individuals were falling rapidly. The results of 2 surveys—one made in November, 1930, and the other in April, 1932—form the basis of the report.

Racial differences are eliminated in this study because the Mulberry's population is Italian almost to a man.

Full-time employment suffered a very marked decline during the 1½ years between the 2 surveys. Idleness increased more than part-time work. Two out of 5 of 3401 wage earners' families reported all workers employed as usual in November, 1930. Of 3497 wage earners' families interviewed in April, 1932, only 1 in 5 reported all workers employed as usual.

Illness, keeping patients in bed, appears to have increased. Although much of the medical care ordinarily utilized by Mulberry's population is free, the proportion of patients going without such treatment is higher in 1932 than in 1930.

Definite association between high morbidity and poor economic status, evident in November, 1930, and April, 1932, is subject to certain limitations, according to the report. Infectious diseases, on the whole, are not influenced by economic class. There is no conclusive evidence that the severity of sickness is increased by inadequate family support. Not all age groups are equally affected by employment status. The outstanding exception is the preschool child. For children between ages 2 and 6 whose health is carefully supervised by Mulberry Health Center, only certain conditions respond to unfavorable employment situations in the home. The closest correspondence is evident for colds. Malnutrition, which is less definite in its symptoms than most childhood diseases, does not seem to increase with enforced idleness of the workers in the family.

The evidence seems conclusive that in both April, 1932, and November, 1930, the unemployed portion of Mulberry's population suffered more sickness than the employed. This correlation persists after all cases in which illness is the cause of idleness are eliminated.—*N. Y. State Health News*, Nov. 27, 1933.

What Price Eyes?

In the Nov. 11, 1933, issue of the *J. A. M. A.*, are reported six more cases of serious injury, one of them involving loss of sight, suffered by women who permitted beauty parlors to dye their eyelashes. In 5 of the 6 cases reported in this issue of the *J. A. M. A.*, the serious effects were due to a product called "Lash-Lure." The Bureau of Investigation Department of the *J. A. M. A.* published on Sept. 23, this year, reports of seven additional cases, and the bureau now has in its files reports of four more. In other words, there have been sixteen cases of severe untoward effects reported following the use of a single product, Lash-Lure. This preparation is an aniline dye having for its base probably either paraphenylenediamine or paratoluylenediamine or some closely related substance. Every physician, and practically every responsible beauty parlor, knows the risk that is run in the application of dyes of the aniline type to the hair of the scalp. It has long been good beauty parlor practice to insist that persons who are to be subjected to an aniline hair dye should be tested for sensitivity to that product. Because of the irritating effects of such dyes, there is no justification for the use of so dangerous a substance around the delicate tissues of the eye. As the *J. A. M. A.* has pointed out repeatedly, cosmetics are under no national control. The National Food and Drugs Act defines a drug as a substance that is used for the prevention, mitigation, or cure of disease, so that no matter how powerful, how poisonous, or how deadly the drugs may be that enter into certain cosmetics, they are not drugs within the meaning of the act. As a result, the cosmetic industry is as free from legal restrictions of a national character in 1933 as the "patent medicine" industry was in 1905. Incidentally, it speaks well for the high character of the cosmetic industry generally in the United States that there is not more fraud connected with the business than there is. The Lash-Lure tragedies emphasize the need of some sort of national control over the sale of cosmetics.—*J. A. M. A.*, Nov. 11, 1933, p. 1566.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THE hope of controlling tuberculosis depends largely on our ability to discover cases as early as possible, for the longer a bacillus carrier remains unaware of, or indifferent to, the danger to which he is exposing others, the greater is the number of potential new cases. The search for cases of tuberculosis demands aggressive action on the part of doctors and health workers for many persons with tuberculosis do not voluntarily seek medical advice and others tend to conceal their disease. Two studies recently made in Philadelphia bring out the value of definite case-finding projects and also some of the difficulties. Abstracts from these studies published in the American Review of Tuberculosis follow.

EXAMINING CONTACTS OF TUBERCULOSIS CASES

Sir Robert Philip in 1887 first emphasized the necessity of examining household contacts of tuberculous patients for the purpose of finding early cases and putting them under care so that they may recover and not in turn infect others. Home follow-up work is costly in money and energy, but the results are considered worth the cost. How efficient is it? A health and hospital survey in Philadelphia some years ago showed that only 30 per cent of household contacts of tuberculosis patients of chest clinics were actually examined; an "average county" had examined 20 per cent, and a health demonstration city had examined 60 per cent.

Analysis of Follow-up Work

Analysis of contact work was made of the clinic patients of Henry Phipps Institute diagnosed tuberculous for the first time for a period of 18 months. These patients are designated as the "original tuberculous patient." The homes of all were visited. A household contact was considered to be any person living in a dwelling and eating at the same table at the date of diagnosis of the original patient.

The family records of the 182 original tuberculosis patients were reviewed one year after the date of diagnosis and the records therefore represent the year's attempt to secure the examination of contacts. It was found that there were 647 contacts of which 308 or 48 per cent came to the clinic within the year after the date of diagnosis of the original tuberculosis patient.

About two-thirds of the original tuberculosis patients were white and one-third colored. Only 11 of the white group were of native-born par-

entage. Families of 60 of the patients were known to one or more of the relief agencies of the city. Four-fifths were between the ages of 16 and 49. For 27 of the original tuberculosis patients there were no household contacts and for 22 only 1. Further analysis led to the conclusion that "the most complete contact examination work will be possible in districts serving large families with many children, colored families, and families with advanced tuberculosis patients with positive sputum."

Reasons for Refusing Examination

The reasons why 52 per cent of the contacts did not come to the clinic were studied by interviewing the visiting nurses.

The three obstacles most frequently met in endeavors to secure contact examination are (1) that the contact wishes to be examined by a private physician or a physician in some clinic he is already attending; (2) that the contact will promise to come to clinic and accept a clinic appointment, but not actually present himself; and (3) that the contact says he feels well and sees no need for examination.

Difficult as it is contact examination is a most important field of tuberculosis work. Of the contacts examined within 12 months of the diagnosis of the first patient, 11.4 per cent were found to be tuberculous, and the diagnoses of 2.3 per cent were undetermined at the end of the 12-month period.

Tuberculosis Clinic and Contact Study, Dorothy E. Wiesner and S. Margaret Smith. Feb., 1934.

CASE-FINDING WORK AMONG CHILDREN

WITH the best of contact examination work many cases of tuberculosis elude the attention of the doctor and the health officer. One of the various supplementary devices for finding cases is that of examining school children routinely with the tuberculin test and the roentgen ray. By this method early cases of tuberculosis are found among apparently healthy school children, and by examining contacts in their homes active cases not previously known are discovered. A study of this kind was made recently in Philadelphia to confirm previous observations in the incidence of tuberculous infection as shown by the tuberculin test and of various lesions as shown by roentgen-ray examination.

Additional tuberculin tests made upon children in 2 schools confirm the conclusion that the incidence of tuberculous infection in Philadelphia is high at the age of 15 years. Of 704 children tested, 566 or 80.4 per cent reacted. No significant difference in the percentage of reactors attributable to sex or race was noted. The percentage of white girls who reacted was somewhat higher than that of white boys, but it differed very little from the percentage of colored girls and boys who had positive reactions.

The authors believe that the percentage of lesions based upon the number of children tested with tuberculin, rather than upon the number examined by roentgen ray when negative reactors are excluded, gives a fairly accurate conception of the incidence of tuberculous lesions in presumably healthy children.

Lesions Found

The number of significant lesions (defined in the article) in elementary school children below the age of 12 was small, probably about 0.3 per cent. Significant lesions were found in 1.0 per cent of white boys 12 to 20 years of age and in 2.3 per cent of white girls. Colored children in the younger group showed significant lesions approximately 5 times as great as in white children. (In the older group the number of colored children examined was too small to be comparable with the number of white children.) The authors feel that preventive work is more needed in the adolescent group than among younger children.

The white children in the survey were mainly first-generation American, in large part of Jewish and Italian stock. One of the schools was situated in a district thickly populated by people in very poor circumstances. Half the pupils were colored. The death rate from tuberculosis

for a 2-year period, April 1, 1929, to April 1, 1931, in the area from which one of the schools draws pupils was 284.3 per 100,000 and in the area from which the other school draws pupils, 219.4.

In the summary the authors say:

"Under the conditions of our survey the tuberculin test unfortunately deters many people from giving consent to examination. When determination of the incidence of infection is not considered essential the tuberculin test may be omitted, in order to survey larger numbers of school children. Some of the children given roentgen-ray and physical examinations will presumably be tuberculin-negative, but this waste may be compensated by saving the cost of a general application of the tuberculin test to groups presumably in large part tuberculin-positive. School administration and health officers with the aid of parents might devise a plan by which all children could be fully examined.

"The need of prophylactic care for school children with significant latent lesions is not generally recognized. The value of treatment in open-air classes and preventoria can be determined only by long-continued observation of large groups of children, with accurate diagnoses and adequate controls. Conditions in the schools reported here have not made possible the collection of information concerning the value of prophylactic care within the school system. Nevertheless, it is reasonable to suppose that measures of established value in arresting clinical tuberculosis will prevent the development of latent into clinical disease if adequately applied to appropriate subjects."

A Further Study of Tuberculosis in Public-School Children, H. W. Hetherington, F. M. McPhedran, H. R. M. Laudis, and E. L. Opie. Feb., 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

MEDICAL SERVICE TO THE CHRONICALLY INDIGENT

We sincerely hope that every reader of the JOURNAL will read carefully the first article in this issue, written by Edgar S. Buyers, M.D., for 27 years Secretary of the Montgomery County Medical Society, and since 1932 Chairman of the Board of Trustees of our State Society. Having read this article, we trust each reader will next turn to page 411, and read throughout the article headed "A Modern Responsibility of a County Medical Society." Subsequent issues of the JOURNAL will carry detailed reports by C. D. Koch of existing facilities for sickness service to the "poor" of 42 of the 67 counties in Pennsylvania as well as a summary of our "General Poor Relief Act." All these published reports and comments will finally be grouped in a pamphlet for distribution to county medical society officers, social workers, county "poor" authorities, and others interested in the socially-important responsibility of minimal adequate medical service to the indigent.

That provision of minimal adequate sickness service to the indigent is the economic liability of society at large, and the professional responsibility of the county medical societies, has been the contention of the organized medical profession in Pennsylvania for more than a year, and we are pleased to be able to report that free choice of physician by the indigent sick, and payment by the county on a fee basis for the professional services rendered, has already been established in at least, to our knowledge, the following Pennsylvania counties: Crawford, Lehigh, Northampton. The achievements of these county medical societies undoubtedly reflect the patient, energetic, unrecompensed endeavors of representative county society officers and committee-

men in repeated conferences with intelligent, socially-minded county "poor" authorities.

The most threatening development to the consummation of similar relations in other Pennsylvania counties is the current tendency for poor district authorities to abandon all sickness service to the chronically indigent, literally "dumping" this purely local community or county responsibility upon our State and Federal governments which are at present underwriting the emergency relief program, with its sickness service. This policy, with its tendency toward the development of State and Federal bureaucracy and the discouragement of community and individual responsibility, must be controlled and finally suppressed.

There are many suggestive evidences that unemployment relief, quite likely on a cash basis, will confront the great industrial State of Pennsylvania for some time to come. When it arrives on a cash basis, the entire problem will be much more scientifically controlled than by the present hit-or-miss system of distributing food, clothing, shelter, and medical relief; and the county medical societies and their membership must be found in the front ranks of groups and individuals equipped by training and experience to administer relief to the poor—chronic or emergent—on a cash but reconstructive basis.

TWENTY-EIGHTH ANNUAL CONFERENCE OF COUNTY SOCIETY SECRETARIES AND EDITORS

In the January issue of the JOURNAL we epitomized the papers presented at the 1933 Conference of County Society Secretaries by Secretaries Fleming and Brenholtz and by Executive Secretary Crispin, of the Philadelphia County

Medical Society, on "The Cost of Nonmembership." The following is an epitome of the stenographic notes of the discussion from the floor on these papers:

Secretary Walter F. Donaldson: As I listened to the presentation of these papers so excellently prepared, I was impressed with the fact that notwithstanding the benefits that come to the members of a county medical society, it still remains the duty and responsibility of the members of the county medical society to make themselves so outstanding in the community by their superior knowledge of the practice of medicine, by their superior ethics in the practice of medicine, that the community cannot help but differentiate between members and nonmembers. There are practical means of bringing to the attention of the public in the county the difference between members and nonmembers. I sincerely believe that in most of the counties in Pennsylvania arrangements can be made by the county medical society whereby active members would not only have their names published in the leading newspapers of the county at least once a year, but that the names of those who attended the meetings each month or each fortnight would also be published. That would involve a little work and responsibility on the part of the secretary. It is a legitimate way of calling the attention of the public of the county that certain physicians practicing in the county are members of the county medical society. I am convinced that with the growing knowledge the public has of medical organizations they will very soon ask why any practicing physician is not a member of his county medical society.

I estimate that there are about 1500 eligible physicians in Pennsylvania who are not members of county medical societies. The burdens of some of us might be lightened if those 1500 physicians belonged to their respective county medical societies and were contributing toward certain benefits they are now receiving without paying their share.

Secretary Anthony F. Myers: I want to supplement what was said. If you as secretaries will get down to rock-bottom work, you are going to get every worthwhile doctor in the county into your society. That's what Bucks County has done, and I am proud to say that the newspaper editors in the county, five of them, are my personal friends and I make it a point to see that the names of all those attending the meetings are published in the public press. The public knows just exactly what's being done, and it has extended our influence. See that you do likewise.

Secretary Hamblen C. Eaton: I wonder what proportion of those 1500 men we should want in our societies. I know the situation in Warren County is such that out of 4 or 5 men who are not members, there are only 2 we should consider as members. I wonder if that situation is general throughout the State.

Secretary Joseph Scattergood: I have been secretary of Chester County Society for 25 years, and looking back over the files you will find that every member who has been at the meetings has had his name published. I like the idea of actually publishing the name. We have in Chester County approximately 20 physicians who are not members and who all have been solicited. Some we are not particularly anxious to have accept. We were very glad when some failed to pay their dues and were dropped automatically.

Secretary Brenholtz (in closing): I have in mind 2 men who are Canadians, but who have been practicing in Pennsylvania for about 7 or 8 years. Both have refused up until this moment to apply for their first naturalization papers, a requisite to membership in the county society.* They have been importuned time and time again. It is hard to understand why they don't want to become citizens. They have selected the location in which they intend practicing, and yet refuse to join the county society, missing thereby that very important part in the life of every physician. One of these men was appointed as school physician some years ago.

The following is an epitome of the stenographic notes of President Donald Guthrie's presentation before the Conference on "Graduate Medical Education for Our Smaller County Societies" and discussion of the subject from the floor:

PRESIDENT GUTHRIE: I am very happy to greet you and assure you that the Board of Trustees appreciates full well the splendid work which you are performing in your various county societies. You are the key-men and women of our organization. The work of any county society reflects entirely the activities, unselfishness, and initiative of its secretary, and the work of this State Society reflects the good work of the component county societies. Presidents come and presidents go, but fortunate is any county society that can retain such secretaries as Dr. Fleming and others present whom I shall not mention. The work of our own State Society reflects largely the brilliant work of our beloved secretary, Dr. Donaldson, and I am sure you will agree with me in that remark.

Those of you who listened to my annual address will recall that one of my major desires for my short term was postgraduate medical extension teaching applied primarily to the smaller community working through the component county medical society. I said I knew of no better way to help the general practitioner than work of this kind—a plan which will bring medical teaching to the general practitioner's doorstep. There are many men of my acquaintance who have taken postgraduate work and with them I find that the money spent was far out of proportion to the economic benefit derived, and yet these men are not satisfied with their work or knowledge and continue to crave instruction.

It is too early to talk about a definite plan. Understand, please, that it is not my intention to interfere in a meddlesome way with any county society that is already engaged in graduate work. There are many plans that are functioning efficiently in the State. I need mention, for instance, the work in Lackawanna, Montour, and Northampton Counties. We do not wish to interfere or make suggestions to any county society that is already engaged in this work. Please let me make myself clear. Neither is this work, of course, going to be offered in Allegheny or Philadelphia Counties, in which very excellent postgraduate work is already being engaged in.

What I wish you secretaries would do is to explain the plan to your various county societies and seek a response from the society—have the society express its views on this work. Here again we don't want to

* Since the above discussion our Board of Trustees have memorialized the State Board of Medical Education and Licensure, suggesting the advisability of proposing an amendment at the 1935 session of the Legislature, making an appropriate declaration of application for citizenship one of the essentials to licensing aliens to practice medicine in Pennsylvania.

thrust anything upon any society unless we get an expression through the officers of the society that it is the wish of the county society to begin this work.

There are several ways of starting the work, as you gentlemen know. Throughout the South the plan functions primarily under a field clinician who is engaged by the state society at a salary and who spends his full time in going throughout the state holding clinics and demonstrations with didactic lectures in the smaller hospitals of the state as centers for postgraduate teaching. These southern societies are helped financially very largely through the generosity and interest of certain foundations.

We might have the work conducted by the Graduate School of the University of Pennsylvania. You will recall that several years ago Dean Meeker engaged in this work and it was extremely successful, but his plan failed because he had not the money to support a central distributing organization.

The plan which I believe will be the most practical, with fewer misunderstandings, will be to invite medical schools throughout the State to take part in the work; to have members of the faculty of these schools volunteer to go to different parts of the State, being assured of their travel expenses and a small honorarium to be paid for each clinic, and also the right to see private patients in consultation. This was the plan under which Dr. Meeker's work functioned and it was most satisfactory to the groups and to the teachers who were sent out.

Another plan would be to have practicing physicians (not faculty members) engage in postgraduate teaching, not at home, but to go from their own home county societies to other societies.

After discussing the matter with some of the officers, and the Board of Trustees particularly, it seems to me that the most practical plan is to have the members of the faculties of various schools invited to take part in the plan. We commend six seminars, not in the form of didactic lectures, but in a selected hospital serving as the central place of instruction to have cases prepared and presented. Conceive of a course of six lectures in any one of our counties, where the charge for the six seminars and six meals would be \$10 per course. Do you men, from your experience, think that in trying times like these it would be possible to interest your members who crave postgraduate instruction in such a course? For instance, let's see how that plan might work in a county society like Lawrence County. Understand, gentlemen, that any county society could invite members to join the class in smaller contingent counties in which centers were not available. Suppose in Lawrence County we could enroll 25 men paying \$10 each for the course. That would bring an income of \$250. The honorarium for the teachers of \$25 a lecture would be \$150. The dinners at \$1.00 apiece for the 6 courses for 25 members would be another \$150. That leaves a \$50 deficit. If instructors were secured from the city of Pittsburgh and they were allowed 5c a mile, travel expenses for teachers might create a deficit of approximately \$40, or a total deficit for the 6 seminars of approximately \$90. The Board of Trustees very graciously and very generously allotted me in the budget \$2500 for the year to pursue this course and to use any part of this amount. I could thus very easily make up the deficit to that county society.

Take another example, a group of counties like Wyoming, Schuylkill, Bradford, Susquehanna, and Tioga. I am very sure that in good weather when traveling

is easy we could organize a group course of 45 physicians. Understand, gentlemen, these plans are nebulous. I welcome suggestions from any of you.

I wish the secretary would please try to create in his component county society a desire for this work and then communicate with me. After we get responses from the secretaries as to how greatly the work is desired, we shall formulate definite plans which will be practical and workable throughout the State. I hope I may have that information so that some plan may be definitely formulated at the February meeting of the Board of Trustees.

SECRETARY PERSIS S. ROBBINS: The members of the society of which I am secretary in McKean County seem to be against every suggestion that comes from the State Society. The only suggestion I can ever remember that came from the State Society that they approved of was embodied in Federal Pamphlet No. 7, of which you may have heard. But when the suggestion came of having a postgraduate course in the smaller medical societies, they ran true to form—they said they were against it. I admit their reasons were good. In the letter Dr. Donaldson sent me he suggested that we have a clinical meeting at 3 p.m. Our members said they couldn't have a clinical meeting very well because all of their patients, even charity patients, are private patients. Therefore, we could have no material to offer. Then, the afternoon hour seemed objectionable. We tried in vain in the McKean County Society for 2 years to have successful afternoon medical meetings. At the present time we meet at 6:15 p.m.; we have dinner first, then a short business meeting; then our scientific program. We have a very good attendance; over 50 per cent of our members attend each meeting.

We are already putting on what we consider very good programs. We do have a well-balanced yearly program given by doctors from Rochester and from Buffalo, New York, from Pittsburgh, and sometimes from as far away as Philadelphia.

I try to make the business meetings as short as possible, because, as you know, doctors will come to hear about medical subjects but they won't talk about business—and therefore that must be subordinated.

The members of our society asked me to learn whether we could have a list of the teachers or the leaders of the proposed courses, so that we might select those we wanted.

SECRETARY WILLIAM A. WOMER: In Lawrence County Medical Society we experimented with two varieties of graduate courses. For instance, we had a course on diseases of the eye. Members in general practice wanted to know about the eye so they might have a more intelligent idea of diagnosis and treatment by the specialist. We also had a course in clinical laboratory work, not because our members intended to do this work themselves, but that they might more intelligently interpret laboratory reports.

Another variety of courses included subjects of general interest to general practitioners, for which we had 2 different plans. We continued the course for a year, having 12 different lectures or demonstrations, one a month or oftener. Sometimes we had guest speakers, sometimes our own members. One year we had our own members give lectures and demonstrations for 2 months, then a guest speaker the next month. These 2 varieties of courses proved very satisfactory. We also had clinics given by members of our own society as another variety of postgraduate work,

We found that we have two classes of members just as you all have. I am not trying to poke fun at them. One class does not attend the courses because they feel that they don't know enough. They are timid souls and afraid they'll be exposed. They are good practitioners, but afraid to be questioned.

Then we have another class of men who know too much to attend postgraduate courses. We see them at the State Medical Society meetings out in the lobby talking while the other men are reading and discussing papers. They never attend meetings except to read their own papers. We never succeed in getting them to come to our postgraduate courses. We have to depend on the in-between members, some of whom are really too busy to attend. I think some men are not expert in planning their work, and therefore appear busy.

I think I can say that the courses conducted by visitors attract the largest attendance. Our members objected to visitors coming from comparatively short distances. They said it implies that we don't know the subject, and also complained that the visiting men from near-by points attracted patients. It was my privilege usually to entertain the visiting men in my home, and almost invariably there were consultations in the home either before or after the lecture or demonstration.

The home talent courses helped us most. I think we got most out of the combination courses. For instance, one of our men would discuss and demonstrate clinical pathology with emphasis on tests, new and old. The presentations were not limited to older men. I believe we learned more by having the younger members give the courses.

We have far less trouble today in our Society getting the men to join at \$15 a year than we used to have at \$3 a year because we try to make membership worthwhile. We get new men in just as soon as they locate in our county.

We attempted to avoid "textbook" subjects for discussion. If a man read from manuscript too closely, we "razed" him.

In one series the Chairman of our Program Committee prepared 8 questions for an evening's study, assigning them to 8 men to answer. We can get a crowd out any time for a program of the latter type.

PRESIDENT-ELECT MOSES BEHREND: I have been accused of originating postgraduate seminars in the Philadelphia County Medical Society, but it is really only a reincarnation of all the papers you have heard in your regular medical societies.

I have been much impressed by the character of the attendance. It has been the impression of some men that only the younger members attend, but I have been very much inspired by seeing the assemblage comprised of all ages, young, old, and middle-aged. I believe everybody seems to be seeking for knowledge. That can best be given by postgraduate seminars. One can always find time for these things. In the Philadelphia County Medical Society we set aside Friday afternoon, 4 p.m., for our meetings and our regular scientific meetings are still maintained and are well attended.

I want to impress upon you that you give your unqualified support to Dr. Guthrie's idea. We have seen it work in the larger cities like Philadelphia, and there is no reason why it can not work in the smaller counties throughout the State. I am sure that you men will be benefited by seminars of this sort. The men that Dr. Guthrie will pick for work of this kind will be men

who are outstanding in their profession, and I am sure Dr. Womer need not be alarmed at the character of men Dr. Guthrie will select.

I also want to compliment this conference. I see now why secretaries are chosen for certain societies. The character of the men and women here, who are working as secretaries, certainly shows that they are the pick of the profession. Otherwise our county societies would not function.

SECRETARY WALTER S. BRENHOLTZ: We have for a number of years varied our programs. The last 2 years we have at 8 meetings of the year invited men from the outside. In addition we have clinical meetings in May and November with an internist and a surgeon from the outside. Clinics in the morning and discussions in the afternoon are led by our visiting teachers. This year we intend to have Dr. R. G. Leland, the head of the Bureau of Medical Economics of the A. M. A., and Dr. Alexander Randall, professor of urology at the University of Pennsylvania.

Three or 4 meetings of the year are entirely home talent. For October we had a very prominent man from New York City who had agreed to come 3 months before. After he had agreed to come it was impossible to get any reply from him until the morning before the meeting was to be held when he called up and said it was impossible for him to come. The Program Committee went right to work and secured 6 men, members of our Society, and assigned each a subject in which that man was expressly interested and gifted, and we had one of the best meetings of the year.

Our last meeting was a similar meeting. At the beginning of the year our Committee starts to make out its program and arrange subjects and decide whom they should like to have come from the outside. At one of our meetings we had Royster from Raleigh and Reed from Boston. They had clinics in the forenoon. We always have a good meal which costs 40c to 50c. We pay the hospital just what it costs them.

Counting our annual meeting we total 11 meetings per year. The meetings are held in the afternoon, except when we hold the clinics. I don't believe we would get the same attendance in the evenings. We have from 47 to 67 per cent of our members present at each meeting.

I feel that our program has been a very good one, but I intend to present President Guthrie's suggestions to our Board of Directors.

PRESIDENT GUTHRIE (in closing): I want to refer particularly to the fact that we offer graduate medical instruction to our smaller county societies. The very excellent work that was performed by the Lycoming County Society is an example of what may be done in the larger county societies with the right kind of a secretary and committees. We do not wish to interfere with any postgraduate medical instruction that is being carried on throughout the State, but invite volunteer expressions from smaller county societies.

The topics, of course, haven't been decided upon as yet. We want first to know whether the medical schools will help us and whether there will be a demand for certain subjects. I had thought of topics such as pediatrics and obstetrics, avoiding the more limited specialties, subjects that will help general practitioners the most.

It's all up to the county society. Your president will do everything in his power to further a plan that will be workable.

THE 1934 HONOR ROLL

On Jan. 23, 1934, the State Society dues for 1062 members had been received at the office of the Secretary; on January 23 last year, the dues of 873 members had been received.

Fifty per cent or more of the members of the following county societies had on the above date paid their 1934 dues:

Juniata County, 100%; Wyoming County, 92%; Susquehanna County, 77%; Somerset County, 67%; Bedford County, 60%; Cumberland County, 59%; Potter County, 54%; Montour County, 53%; Franklin County, 52%; Montgomery County, 51%; Huntingdon County, 50%.

We congratulate the officers and members of these societies on this splendid showing, which has involved sacrifice upon the part of our members, with an unusual share devolving upon our good and faithful county medical society secretaries.

We physicians have never needed each other more than now. The basic fundament in our continuous struggle for the recognition of medical leadership in our present-day problems is a *complete and unified county medical society membership*. This means prompt payment of county medical society dues, involving sacrifice as it may, and active leadership, which will demonstrate that the profession of medicine is an occupation which is pursued largely for others, and not merely for one's self.

AN ACCOLADE

We record this year an unusual number of changes in our component societies in the office of Secretary. Notable among those who are retiring from such office are Dr. John H. Sandel, who has served the members of the Montour County Medical Society as their Secretary for the past 12 years; and Dr. Pius A. Noll, who has served the York County Medical Society in similar capacity for the past 10 years. We take this opportunity of expressing to these fellow secretaries our appreciation for the good and faithful service rendered and results accomplished during these long years, as well as to acknowledge the coöperative efforts of the secretaries and other officers of all our 60 component county societies.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence make grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary, Allegheny County Medical Society	\$50.00
Woman's Auxiliary, Butler County Medical Society	35.00
Member Woman's Auxiliary, Lackawanna County Medical Society	10.00
Total contributions since 1933 report	\$717.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Jan. 15:

ADAMS: *New Members*—Raymond F. Oyler, Biglersville; Bruce N. Wolff, Gettysburg.

ALLEGHENY: *Death*—Charles L. McKinnon, McKees Rocks (Univ. of Pgh. '99), Dec. 31, aged 64. *Resignation*—Harry S. Midgley, Pittsburgh.

BERKS: *New Members*—Edwin B. Rentschler, 230 N. Fifth St., Reading; Lloyd Wademan, 629 Penn Ave., West Reading. *Death*—Paul R. Hess, Reading (Jeff. Med. Coll. '29), Jan. 8, age 33.

BLAIR: *Reinstated Member*—Samuel Miller, Jr., 828 First Ave., Altoona. *Death*—Emory H. Morrow, Altoona (Cleveland Univ. Med. & Surg. '83), Dec. 19, aged 75.

BUCKS: *New Member*—Paul O. Blake, Point Pleasant.

BUTLER: *Reinstated Members*—Guy A. Brandberg, 358 Center Ave., Byron L. Ramsey, 131 S. Main St., Butler. *New Member*—Joseph A. Llewellyn, Butler.

CENTER: *Removal*—William A. Barrett from State College to Bellefonte.

COLUMBIA: *New Member*—W. F. Confair, Benton. *Reinstated Member*—Roland F. Wear, Berwick.

CUMBERLAND: *New Member*—George S. Watkins, Shiremanstown.

DELAWARE: *New Members*—John J. Brennan, 3600 School Lane, Drexel Hill; Ruth F. Harral, 336 Shade-land Ave., Drexel Hill; Thomas A. Johnson, 3807 State Road, Drexel Hill. *Transfer*—Lorne E. Hastings, Upper Darby, from Philadelphia County Society.

ERIE: *Reinstated Member*—Alexander C. Cameron, 813 Chestnut St., Erie.

FAYETTE: *Death*—James L. Cochran, Connellsville (Univ. of Pgh. '95), Nov. 22, aged 64.

FRANKLIN: *New Members*—Paul A. Clutz, Mercersburg; Ray C. Gabler, 596 Lincoln Way E., Chambersburg.

GREENE: *Transfer*—Robert A. Gans, Poland Mines, from Fayette County Society.

JEFFERSON: *New Member*—Joseph H. Carazola, De Lancey.

LACKAWANNA: *New Members*—James J. Grace, 703 Jefferson Ave., Scranton; Donald C. Gordon, Carbondale; Edward F. Gomer, Throop; Paul C. McAndrew, Childs; Stephen I. Rosenthal, Peckville; John M. Noecker, 1417 Ash St., John W. Scheuer, 713 Pittston Ave., Camillus H. Spalletta, 1028 Pittston Ave., Walter A. Spelyng, 2720 N. Main Ave., Scranton.

LANCASTER: *New Members*—James Z. Appel, 305 N. Duke St.; Murray K. Spillman, 652 E. King St., Lancaster; Joseph W. Grosh, 23 S. Broad St., Lititz; Charles W. Bair, Quarryville; Nevin H. Rupp, 115 S. 9th St., Akron. *Reinstated Members*—J. Harry Pickel, Millersville; William M. Workman, Mt. Joy. *Death*—J. Francis Dunlap, Manheim (Jeff. Med. Coll. '75), Dec. 24, aged 81.

LEHIGH: *Death*—William W. Eshbach, Allentown (Jeff. Med. Coll. '92), Jan. 8, aged 62.

LUZERNE: *New Members*—Andrew J. Merva, 25 W. Broad St., Nanticoke; Donald C. Smith, 114 Academy St., Wilkes-Barre. *Reinstated Members*—Thomas A. Duffy, Plymouth; Francis B. Eveland, 478 Carey Ave., Wilkes-Barre. *Removal*—Nicholas Mauriello from Wyoming to 2406 Main St., Buffalo, N. Y. *Death*—

Albert A. Redelin, Freeland (Jeff. Med. Coll. '93), Dec. 26, aged 65.

LYCOMING: *Reinstated Member*—Ronald L. Jardine, 300 Grampian Blvd., Williamsport.

MERCER: *New Members*—James W. Emery, 115 N. Erie St., Mercer; Roy R. Norton, 335 Case Ave., Sharon.

MONTGOMERY: *Deaths*—Raymond K. Derr, Pennsburg (Jeff. Med. Coll. '27), Dec. 25, aged 37; Wentworth D. Vedder, Pottstown (Coll. Phys. & Surg., Baltimore, '80), Dec. 22, aged 75.

MONTOUR: *New Member*—Russell Thomas, Lewisburg (Union Co.). *Removal*—Ida Ashenhurst from Danville to 36 Charles St., Cortland, N. Y.

NORTHUMBERLAND: *New Members*—John V. Flanagan, Shamokin & Shakespeare Sts., Shamokin; Peter A. Justin, 6th & Oak Sts., Mount Carmel.

PHILADELPHIA: *New Members*—Marie A. Castallo, 5919 Greene St., Gtn., David Cohen, 1517 N. 7th St., Edward T. Crossan, 5324 Wayne Ave., Henrietta B. Lowenburg, 325 S. 17th St., John N. Marquis, 325 S. 17th St., Harry S. Weaver, 1433 Spruce St., Philadelphia. *Resignation*—William J. Albrecht, Somerville, N. J. *Deaths*—Louis E. Barlow, Philadelphia (Jeff. Med. Coll. '96), Dec. 8, aged 68; James K. McShane, Philadelphia (Univ. of Pa. '23), recently, aged 35; Henry F. Page, Philadelphia (Univ. of Pa. '93), Dec. 21, aged 63; Scott W. Lau, Philadelphia (Jeff. Med. Coll. '99), Dec. 17, aged 59; George J. Muellershoen, Philadelphia (Jeff. Med. Coll. '04), Dec. 18, aged 50; Francis C. O'Neil, Philadelphia (Univ. of Pa. '11), Dec. 8, age 52; Isaac Pearson Willits, Philadelphia (Univ. of Pa. '80), Dec. 11, aged 73.

SCHUYLKILL: *New Members*—Thomas F. McLaughlin, Tamaqua; Warne L. Haight, Pottsville; Asa D. Young, Auburn.

SOMERSET: *New Member*—John F. Maurer, Acosta. *Reinstated Member*—Frank W. White, Rockwood. *Transfer*—George B. Hopwood, Confluence, from Fayette County Society.

SUSQUEHANNA: *New Member*—Park M. Horton, New Milford.

VENANGO: *New Members*—Willard E. Kramer, 401 Cowell Ave., John V. Ledden, IOOF Bldg., Oil City.

WASHINGTON: *Reinstated Member*—Maurice H. Heatter, Donora. *Death*—Elbin J. Johnson, Claysville (Univ. of Pgh. '95), Dec. 31, aged 66.

WESTMORELAND: *Reinstated Members*—John T. Allison, Raymond N. Wilson, New Kensington; W. Trall Doncaster, Jeannette; David C. Farquhar, Martin E. Griffith, Monessen; David R. Shepler, West Newton; Harry W. Tittle, New Florence; Kate W. Leatherman, Daniel I. Leatherman, 215 Penna. Ave., John C. Brisbane, Cope Bldg., Greensburg.

1933

Dec. 26	Luzerne	8-9	128-129	\$15.00
	Montour	8-10	130-132	22.50
	Lackawanna	2-31	133-162	225.00
	Erie*	159	7714	7.50
	Butler	1-3	163-165	22.50
	Butler*	54-55	7715-7716	15.00

1934

Jan. 1	Philadelphia	1-6	166-171	45.00
	Philadelphia*	1968-1979	7717-7728	90.00
2	Adams	4	172	7.50
	Montour	11	173	7.50
3	York	6-7	174-175	15.00
5	Montgomery	9-32	176-199	180.00
	Somerset	1-8	200-207	60.00
	Northumberland	3-16	208-221	105.00
6	Lancaster*	170-171	7729-7730	15.00
	Columbia*	33	7731	7.50
	Lancaster	1-16	222-237	120.00
	McKean	5	238	7.50
	Dauphin	8-30	239-261	172.50
	Columbia	11-19	262-270	67.50
	Adams	5	271	7.50
9	Schuylkill	1-20	272-291	150.00
	Montour	12-14	292-294	22.50
	Juniata	1-6	295-300	45.00
	Mercer	2-3	301-302	15.00
	Berks	1-51	303-353	382.50
	Westmoreland*	165-172	7732-7739	60.00
	Delaware	7-22	354-369	120.00
	Venango	1-5, 7-8	370-376	52.50
	Montgomery	33-60	377-404	210.00
	Bedford	1-3	405-407	22.50
	Clarion	1-10	408-417	75.00
	Franklin	8-18	418-428	82.50
11	Fayette	1-22	429-450	165.00
12	Washington	1, 6, 8-22	451-471	157.50
	Butler	4-8	472-476	37.50
	Cumberland	1-12	477-488	90.00
	Lackawanna	32-60	489-517	217.50
	Dauphin	31-62	518-549	240.00
13	Westmoreland*	173-174	7740-7741	15.00
	Mercer	4-19	550-565	120.00
	Delaware	23-41	566-584	142.50
15	Cumberland	13-17	585-589	37.50
	Greene	1-7	590-596	52.50
	Bedford	4-9	597-602	45.00

* 1933 dues.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Dec. 16. Figures in first column indicate county society numbers; second column, State Society numbers.

1933

Dec. 16	Tioga*	28	7705	\$7.50
18	McKean	3	100	7.50
	Montour	1-7	101-107	52.50
	Venango*	53-55	7706-7707	15.00
19	Delaware	4-6	108-110	22.50
	Huntingdon	1-6	111-116	45.00
	Luzerne	6-7	117-118	15.00
	Luzerne	303-304	7708-7709	15.00
20	Adams	3	119	7.50
	Berks*	175-176	7710-7711	15.00
21	Blair*	102	7712	7.50
	Franklin	3-7	120-124	37.50
	Jefferson*	47	7713	7.50
	Lehigh	1-3	125-127	22.50

* 1933 dues.

Participation in Emergency Medical Relief Service

To: The Physicians of Pennsylvania Participating in Emergency Medical Relief:

The future influence of the organized medical profession of Pennsylvania is on trial today.

The work of emergency relief has necessitated developing an elaborate social service system. Experience has demonstrated that a social worker can effectively service from 100 to 150 relief families. This has contributed tremendously to economy and efficiency of operation. Food, clothing, fuel, and medical relief are all investigated simultaneously.

It is fitting that the routine of investigating medical relief should be outlined to those coöperating in its functioning. Medical and dental orders are issued by the constituted agency in each county. The recipient of such order is permitted free choice of the physician or dentist to render the service needed. Service must

be confined to that prescribed in the *Rules and Regulations*.

Practitioners' bills must be rendered in duplicate monthly to the County Emergency Relief Board. The County Medical Advisory Committee of the respective county then reviews these bills and Medical Order blanks.

This same Committee has the authority to check, with the County Emergency Relief office, the record of the practitioner or the referring agency; and, in disputed cases, the report by the worker assigned to a family may also be consulted regarding the need for the service: if adequate; if *minimal*; if within the scope of the *Rules and Regulations*; if charges correspond to service rendered; and if any complaint by a patient has been justified. As a rule, the physician or dentist is the sole judge as to the *minimal* adequate service needed. However, questionable reports or complaints will be investigated. Approved bills are sent to the auditors of the State Emergency Relief Board.

If any bill is questioned by the County Medical Advisory Committee, it is returned to the physician, dentist, pharmacist, or nurse, unapproved, for revision. Any bill remaining unsatisfactorily adjusted may be submitted to the State Medical Advisory Committee. Bills which remain unapproved will be returned unpaid to those submitting them.

The County Medical Advisory Committee or State Emergency Relief Board has the power to discipline by suspension from the list of participating physicians or dentists any practitioner guilty of infraction of the *Rules and Regulations*. Appeal from county disciplinary action to the State Advisory Committee is possible.

Records of all treatments are filed by the auditors of the State Emergency Relief Board at Harrisburg under a file bearing the name of each participating practitioner.

The funds appropriated for medical relief are supplied by the taxpayers. The system devised has been reduced to a minimum consistent with efficiency. Faithful and conscientious cooperation will effect smooth service. Only an understanding participation in the problem of delivery of *minimal* adequate medical service will prevent the occurrence of unpleasant developments.

GEORGE L. LAVERTY, M.D., *Chairman*,

W. BURRILL ODENATT, M.D.,

HENRY T. PRICE, M.D.,

CHARLES H. SMITH, M.D.,

WALTER F. DONALDSON, M.D., *Secretary*.

Advisory Committee to State Emergency Relief Board

Modifications of the Rules Regarding Medical Orders and the Issuing of Medical Orders

To: Members of the Local Advisory Committees:

Physicians attending an emergency case may, if they choose, secure a written order from the patient to the local director of relief instructing the director of relief to deliver a Medical Order to the doctor who attended the patient, and the director of relief may, if so instructed, insert the name of the medical attendant on the Medical Order.

Cases handled in the above manner must be investigated promptly by the relief director.

EYES

Medical Order for eye examinations shall be issued only to the wage earner of the family and after proof that if glasses are furnished, he or she can accept work

which is offered, and which he or she is now unable to do on account of impaired vision.

COÖPERATION OF PATIENT

Physicians attending patients who will not obey orders and coöperate in all details are requested to report the same to the local relief director who will recall the Medical Order (as billed to date of recall) and refuse to issue subsequent orders to the individual who failed to coöperate with the medical attendant. Appeal by the patient may be made to the local advisory committee. This applies to all conditions, medical obstetric, or dental.

Physicians are requested to report to the director of relief or the county advisory committee any abuse of the privilege now granted to the ill individual on relief to secure Medical Orders (insolent manner of calling the physician, misrepresentation of facts to the physicians, offering for sale).

Local relief directors and workers will inform the patient receiving Medical Orders that the *Rules and Regulations* definitely limit the medical attendant to the minimum of service consistent with good professional judgment (for above see paragraph requiring co-operation of patient). Obstetrics requires the minimum in the *Rules and Regulations*.

Fractured jaws may be treated either by physician or dentist or jointly. Total compensation is not to exceed \$20.

Local advisory committees must examine, correct if necessary, approve, and initial all bills before they are sent to Harrisburg.

You will clip and send to the Director of Medical Relief newspaper advertisements of physicians or dentists, also hand bill distribution, radio addresses, or addresses at public meetings in which medical or dental work is solicited. Such solicitation is in violation of the spirit of the Emergency Medical Relief.

WHAT THE EMERGENCY MEDICAL RELIEF PROGRAM IS TRYING TO DO

DONALD GUTHRIE, M.D., Sayre, C. DUDLEY SAUL, M.D., Philadelphia, and H. C. METZ, D.D.S., Pittsburgh*

The Emergency Medical Relief program in Pennsylvania naturally divided itself into two stages.

The object of the first stage was to produce a free flow of medical, dental, and nursing services to the sick individual on relief and in addition furnish to him, in reasonable quantities, medicines and supplies thought necessary by the physician or dentist. We can now say without fear of contradiction that this has been accomplished.

The physicians throughout the State have unstintingly given their best to the relief recipient without first measuring the value of the professional service against the remuneration provided in the *Rules and Regulations*.

The dentists, under the leadership of Dr. H. C. Metz, president of the Pennsylvania State Dental Association, have responded to this emergency, accepting patients, knowing in advance that the fee allowed would most frequently be only a "not-out-of-pocket" fee.

The nurses, under the leadership of Miss Heatley, have set up committees in every county in the State (except one) and have rendered hourly nursing service

* Presidents of The Medical Society of the State of Pennsylvania, the Pennsylvania State Homeopathic Society, and the Pennsylvania State Dental Society, respectively.

(many hours in some cases) when and wherever requested by the physicians, thereby assisting to preserve life and relieve the suffering of the patient on relief.

The pharmacists have accepted the mandate of their president, Mr. Bert Gaw, to fill prescriptions "regardless" and many times were "out-of-pocket." This, at least in part, has been due to the failure of the physician to confine his prescription to U. S. P. and N. F. preparations, and at other times due to his belief in the efficiency of a particular preparation, not U. S. P. nor N. F.

The present time marks the end of the first stage and finds those engaged in practicing the healing art united in rendering aid to the unemployed relief recipient.

The second stage, or reconstruction stage, seems to the director of emergency medical relief, to offer even more difficulties than the first. We (the combined professions) must keep up the free flow of medical aid to all in need, but of equal importance, the cost must be measured and all injustices to the State, recipient, or medical attendant must be eliminated if the present program is to be successful.

The *Rules and Regulations* constitute a solemn agreement between the medical professions of the State and the Commonwealth of Pennsylvania which, in the introductory remarks, provide as follows, maintenance of the physician-patient, dentist-patient, physician-nurse, and pharmacist-physician-patient relationship:

(a) "An agreement by the relief administration to recognize within legal and economic limitations, the traditional family-physician relationship in the authorization of medical care for unemployment relief beneficiaries in their homes; the traditional physician-nurse relationship in the authorization of bedside nursing care; the traditional dentist-patient relationship in the authorization of emergency dental care"; and

(b) "An agreement by the physician, nurse (or nursing organization), and dentist to furnish the same type of service to an unemployment relief beneficiary as would be rendered to a private patient, but that such authorized service shall be a minimum consistent with good professional judgment, and shall be charged for at an agreed rate which makes due allowance for the conservation of relief funds.

The common aim should be the provision of good medical service at a low cost—to the mutual benefit of the unemployment relief beneficiary, physician, nurse, dentist, pharmacist, and taxpayer."

The *Rules and Regulations* further definitely limits the economic responsibility of the State to acute conditions and a reasonable opportunity to diagnose chronic conditions and treat for two months chronics who, in the judgment of the physician, may be benefited, advising the others to accept their permanent disability with the best grace possible.

For the success of the medical relief program or even its continuation the physicians must:

First: Limit visits made (both office and home) to the number that would ordinarily be cheerfully paid for by the patient were he or she paying the bill.

Second: Treat minor accidents at his office, limiting the visits to the irreducible number and charging for all as office visits.

Third: Discharge immediately the malingeringer and advise the local director of relief that the recipient of the medical order was not in need of medical attention and that further orders should be cautiously issued.

Fourth: Acknowledge inability to correct successfully the long standing degenerative diseases (locomotor ataxia, diabetes, chronic heart diseases, senility, congenital defects, orthopedic deformities, etc.) within the

scope of "relief" care. If hospital treatment or operative measures can benefit the patient frankly tell him and refer him to the proper place.

Fifth: Do not encourage the patient to expect glasses, trusses, or orthopedic appliances when such were not purchased or used by him when he was economically able to purchase them. The Federal Government has very definitely indicated to the Pennsylvania Relief Department that it will not approve a program of this kind.

Sixth: Limit the quantity of drugs and the number of prescriptions to the irreducible needs of the patient. Remember the druggist will not be paid for drugs prescribed except from the U.S.P. or the N.F.

Seventh: Remember professions engaged in the healing art are on trial. It is the first time in the history of the world that a government accepted the responsibility of the acutely ill private citizen and above all permit the patient to select his own physician. The government has here permitted the medical profession to be a self-governing body and to bargain to furnish medical, dental, and nursing care within reasonable economic limits in accordance with a program and contract drawn up by medical representatives.

Dental Participation: We are proud of the spirit shown by the organized dentists of the State. The work of our county chairmen has been commendable. Their task is no small one and they are coöperating 100 per cent.

This is a national charity affair; the people, by taxation and bond issues, are assuming their part of this dental charity by a small payment in cash. The profession is contributing its part by accepting a greatly reduced fee, so that, during this emergency, the greatest number of patients may be reached by the least possible outlay of the taxpayers' money.

The dental profession has made a most favorable impression on the public during the past few years by its wonderful response to the relief of its fellow man who was "down" but not "out."

The Federal Government, recognizing this great sacrifice of the dentists, decided to relieve their burden by compensating them enough to pay at least for their materials.

Remember the government has ruled that "on relief" patients shall choose their own dentists. These patients come to you by choice; your treatment of them will determine whether or not they return to you when the crisis is over.

The rules governing this care are not flexible. Services are paid for out of the United States government funds and as you know the government is most exacting with its regulations.

The supervision of this work is in charge of dentists in each county, appointed by the Pennsylvania State Dental Society but the final approval and payment is in charge of a government agent.

We must accept the *Rules and Regulations* and their interpretations of emergency work and adequate dental care. The emergency filling, as interpreted under *Rules and Regulations*, special service, paragraph 2, must be limited to saving a tooth, supporting a clasp of a partial denture, the six-year molar of a child, or a tooth to be used later for an abutment of a bridge or support of a clasp for a partial denture. These teeth, in many cases, are very valuable to the patient's health and if extracted may lead to very expensive operations for replacement work.

This is a worthy cause—each dentist should render the same conscientious service to an unemployed relief patient, as if he were a private patient. Let us all

enter into it with a spirit of aiding those who are more unfortunate than we.

Nurses have provided services in a manner which deserves the commendation of the physician and patient. They have rendered satisfactory service to the sick in cities, industrial areas, and rural districts. Their services have been of value in assisting in saving lives, reducing suffering, and decreasing the duration of the illness. No nursing bills have been received which even suggest unfairness.

The Pharmaceutical Association of Pennsylvania as a whole has cooperated in the program. Some difficulty was experienced at first on account of the fact that less than fifty per cent of the pharmacists are members of the State association, and in some instances the non-members refused to consider prescriptions written for those on relief. On the other hand, a very large percentage of them filled prescriptions which undoubtedly represented an absolute loss. It is to be regretted that the physician has been careless in prescribing an expensive drug sold under a trade name instead of using a drug alike in chemical composition and therapeutic value and found in the U. S. P. or N. F., the latter in some instances costing only one-tenth as much. These occurrences, frequent at first, are now becoming the isolated instances and it is hoped that the future will entirely correct these abuses. If the program is followed to its logical conclusion it will return to the druggist the patronage of both physician and former customer.

The professions, united in the healing art, must individually and collectively work toward the success of the program. Individual righteousness will result in collective honesty in meeting both the spirit and the letter of the relief program.

Unfair practices, chiseling, excessive number of visits, or unnecessary (not emergency) work charged for by any member of a profession united in this program, will reflect discredit on all.

The County Advisory Medical Committee or State Emergency Relief Board has the power to discipline by suspension from the list of participating physicians or dentists, any practitioner guilty of infraction on the *Rules and Regulations*. Appeal from county disciplinary action to the State Advisory Committee is possible.

It is well to remember the changing social relations and that this or some similar program of medical relief may be continued. Your organization has been able to preserve the private physician, dentist, patient relationship.

May the individual practitioners prove worthy of the trust.

The following interpretations of the Rules and Regulations have been made:

Obstetric cases delivered prior to March 1, 1934, will be considered completed cases if the attending physician has used every opportunity to make the necessary 6 prenatal visits, and in all other respects has complied with the Rules and Regulations. Compensation is \$20.

Cases delivered on or after March 1, 1934, will not be accepted as representing adequate care unless 6 proper prenatal examinations have been made. To receive compensation for obstetric work after March 1, 1934, all cases must have had the medical service required by the Rules and Regulations.

School physicians and other physicians who have or

are now receiving a salary for examining children or adults then referring them to the family physician for treatment, may accept a medical relief order from such contacts when presented without solicitation.

City poor doctors, county poor doctors, and others who have or are now receiving a salary for attending the indigent sick, may accept a medical order and be paid for services rendered to a sick patient on emergency relief, provided he can prove by a book entry that he was the attending physician prior to Jan. 1, 1933.

As a rule insulin is only furnished when necessary to treat diabetic coma and for a few days thereafter. It is not furnished to a patient simply for the reason that he or she has diabetes.

Medical Orders for eye examinations shall be issued only to the wage earner of the family upon definite evidence that a job is ready for him, when his vision is corrected. The same procedure shall obtain in regard to trusses.

Within reasonable limits, special diets may be furnished to the undernourished child, pregnant woman, convalescent, and the diabetic. Cod liver oil is not furnished on prescription. Requests for the above should be made by the physician to the local director of emergency relief.

Relief recipients on a deficiency budget are eligible for medical and obstetric care. (Includes CWA low wage employees.)

All medicines used on prescription must be U. S. P. or N. F. preparations. The attending physician is to furnish without additional cost, medicines usually furnished by him.

Economy must be exercised regarding surgical dressings and supplies. Excessive quantities will not be paid for.

Patients or a member of the family should sign medical orders.

"The free choice of a physician is one of the pleasing features of the Rules and Regulations. Some patients, however, may have no regular family physician and may call upon you for treatment. If the case is one which does not come within your practice or for any other reason you are unable to treat the patient, in the name of humanity do not turn the patient coldly from your door, but courteously send him to some other neighboring physician who you believe will treat the case. In absence from your office, leave instructions that your secretary, or whoever may receive the patient, shall extend a like courtesy. If it is at all possible, treat the patient yourself."

Medical Attention to CWA Workers

On January 29, 1934, Mr. D. L. Evans, State Comptroller CWA, and Mr. L. O. J. Sohland advised all County Medical Societies to organize for necessary medical attention to CWA workers and to confer with local administrator of CWA for necessary details.

The Federal Government will compensate the attending physician for the first examination in all injuries or suspected injuries; continued compensation for medical or surgical attention by the CWA is dependent on the disability having been directly and exclusively caused by an accident when at work on a CWA project.

If the patient was on relief when first employed and the disability returns him to the relief list, the local director of relief will review the case and issue a Medical Order for medical attention, but it must be reported within forty-eight hours.

In this connection, two facts are emphasized:

First: The first examination will be paid by the CWA in all cases. Subsequent compensation will depend on whether or not the disability falls within the compensation rules.

Second: If not compensable under the CWA, conifer with your local director of relief and if it is a relief case, it can be treated as such under the *Rules and Regulations*.

CWA bills not satisfactorily adjusted locally may be referred to the Medical Advisory Emergency Relief Committee for review and adjustment.

County Society Reports

ARMSTRONG

Jan. 9, 1934

The annual meeting of the society was held in the Hotel Stein, Kittanning, Jan. 9. After the dinner, the women retired to the hotel parlor, and the Medical Society was called to order by the president. Ten meetings were held during the year. A testimonial meeting was held in honor of Joseph D. Orr, a plaque being presented to him by the society. The following officers were elected for the ensuing year: President, Jessie H. King; vice president, first, T. Craig McKee; second, Jacob C. Fair; secretary and treasurer, Jay B. F. Wyant; district censor, Thomas N. McKee; censor, A. Howard Townsend.

District Councilor Alexander H. Stewart gave an address on "The Social and Economic Life of the Physician." He also spoke on the child welfare work. The poor in the county have been cared for and none have been refused service. A questionnaire was sent to each member of the county society to ascertain the amount of free or charity work the members had done during the year 1932, and the response showed that more than 60 per cent of the work done was charity.

JAY B. F. WYANT, *Reporter*.

BERKS

Pennsylvania State Health Day Activities

The observance of Pennsylvania State Health Day in Berks County, in the auditorium of the City Hall, Reading, Pa., on Oct. 26, was attended by a large and interested audience. The meeting was sponsored by the Berks County Medical Society and the Reading Tuberculosis Association, and was presided over by President Erwin D. Funk, of the former organization.

The greetings of the municipality were extended by Mayor Heber Ermentrout. Mr. Thomas Ford, superintendent of the Reading School District, emphasized that daily health inspection in the morning inculcated habits of cleanliness and tidiness in the school children, and that health problems in school not only comprise physical examination and teaching, but also school planning, heating, lighting, etc.

The guest speaker was J. Arthur Myers, professor of preventive medicine, University of Minnesota Medical School and chief of the medical staff of the Lymanhurst School for tuberculous children.

Dr. Myers explained in part that the 3 greatest desires of children are to live long, live happily, and live efficiently. In 1885 the average length of life was 40 years. Now it is 58; so the contrast between 1885 and the present is quite marked. In the former year, serious epidemics accounted for the deaths of from 10 to 50

per cent of boys and girls, and the crippling of others through diphtheria, typhoid fever, and tuberculosis. At that time the etiology of these diseases was not so well known.

Tuberculosis is one disease still taking too large a toll of persons in their teens and early twenties. The tuberculin test is harmless; it contains no germs of tuberculosis and never causes disease; it is used in schools, colleges, and universities, and it tells with a high degree of certainty the presence or absence of tuberculosis in the body. It does not, however, indicate its location, or how long it has existed. The roentgenogram reveals the existence of tuberculosis, but its general use is too expensive except in instances of positive tuberculin reaction.

Today most cities have milk pasteurization ordinances, and children are no longer in danger of contracting bovine tuberculosis. Cows are tuberculin tested, and if the reaction is positive, the distribution of such milk is prohibited.

With the information now communicated by the roentgen-ray and tuberculin tests, we can with a reasonable degree of certainty determine in any community who is and who is not infected, and who should be treated and who should be isolated.

By collapsing the lung in chronic destructive types, the disease can be brought under control; stop proliferation of germs; and stimulate the formation of scar tissues around the infected area.

Every effort should be made to locate persons infected before they are so far advanced as to contaminate others, and before they themselves reach the point that nothing can be done for them. We know all we need to know of tuberculosis, and if we apply our knowledge correctly, the disease can be eradicated.

Dec. 12, 1933

The regular meeting was held at 3:15 p.m., Dec. 12, Medical Hall, Reading, with President Erwin D. Funk presiding, attended by about 50 physicians.

Cecil Forest Freed, Reading, spoke on "The Appendicitis Problem." As a basis for his subject, Dr. Freed reported an appendicitis survey, covering a 10-year period (1923-1932, inclusive) at the Reading Hospital. More than 1800 cases treated by operation were reviewed with discussion of deaths and mortality. The responsibility for a continued high death rate over the country was divided between the public, the physician, and the surgeon. The preoperative period of home treatment with indiscriminate use of cathartics and a lack of standardization in the management of peritonitis by surgeons were important factors. In order to curb the death rate of appendicitis it was urged that an educational campaign, sponsored by the medical society or department of health, be inaugurated immediately; that physicians everywhere should endeavor to make earlier diagnoses if operation can be advised and executed at a time when appendectomy is most beneficial; and that the management of spreading and diffuse peritonitis by surgeons be placed on a more rational and uniform basis.

In discussion, Dr. Livingood asked: "On what basis would a diagnosis of appendicitis be made in the first 6-hour period?" Dr. Freed replied that within the first 6-hour period there should be as the primary symptom, abdominal pain, accompanied usually with nausea and vomiting; if there has developed persistent tenderness in the right lower quadrant, and there is some elevation of temperature, even though marked rigidity is absent, one is justified in making a diagnosis of appendicitis. Right lower quadrant pains persisting for from 4 to 6

hours, associated with nausea and vomiting, usually indicate appendicitis.

Dr. Livingood asked: "Can a distinct diagnosis of acute appendicitis be made during the first 6-hour period?" Dr. Freed replied that in many cases it can, and the vast majority of cases can be diagnosed within the first 12-hour period.

Le Roy W. Frederick asked: "What can be said about prophylaxis for appendicitis?" Dr. Freed said it is thought that free and regular evacuation of the bowels is important. In the Bantu race in South America, it is reported that the natives consider that they are constipated unless they have 3 to 4 stools a day; it is suggested that their squatting attitude when at stool, by contracting the abdominal muscles, has a great deal to do in keeping the bowels free and regular; likewise the comfortable sitting position of civilized man today, when at stool, may help to favor constipation. Furthermore, a diet composed of fresh foods, rather than canned and refrigerated foods, might have some bearing in a prophylactic way against the development of appendicitis. (Appendicitis is very rarely seen in the natives of China, Japan, and Korea. Attributed by some to the almost exclusive rice diet; by others, to the relative meat-free diet.—*Editor.*)

Gilbert I. Winston emphasized leukocytosis in appendicitis. He recalled several cases in which leukocytosis was present without any definite sign; the decision to operate was made on the leukocyte count, and an acute appendicitis was found at operation. He asked if Dr. Freed has had a similar experience.

Dr. Freed stated he had not had a similar experience. On the other hand he had operated in many instances on a basis of the history and physical findings without a leukocytosis. One should not hesitate making a diagnosis of acute appendicitis in the presence of typical abdominal findings even though there is no increase in the leukocyte count. There may be a relative polymorphonuclear leukocytosis without a general increase of leukocytes.

Jan. 10, 1934

The regular meeting was held at 3:15 p.m., Jan. 10, at Medical Hall, Reading, President Erwin D. Funk in the chair. The annual election of officers was held, and the following assumed their new offices: President, Ralph L. Hill; first vice-president, Erwin D. Funk; second vice-president, William F. Krick; secretary, Richard C. Travis; treasurer, Daniel Longaker; reporter, Pearl E. Hackman; and librarian, Calvin B. Rentschler. Approximately 80 members and guests were present. William B. Stroud, Philadelphia, professor of cardiology, Graduate School of Medicine, University of Pennsylvania, spoke on "Coronary Artery Disease."

Dr. Stroud said in part: Coronary artery disease is important to the medical profession because most of us are subject to it, and most cardiologists have it. We must offer optimism in handling coronary disease; so much pessimism has been the rule that the laity feel it is rapidly fatal and the apprehension of the lay patient who is afflicted with this disease only tends to hasten the end. Should the consultant inform the patient of the presence of angina pectoris? Cardiologists deem it unwise to tell a patient he has a condition from which he may die suddenly; rather tell him he has temporary or relatively permanent anoxemia of the myocardium. The immediate family should be informed of the true condition.

Temporary anoxemia has a pain factor termed P. F.

After certain overexertion (whether mental, physical, or emotional) on the part of the patient, temporary occlusion of one of the coronaries occurs, and the P. F. enters the picture; at the time the occlusion disappears, and circulation is reestablished, this P. F. is washed away. Pain disappears after relaxation from this overexertion, after administration of nitroglycerin, or morphine, or in a later stage of the disease with necrosis of the nerve cells registering pain in the heart. The pain is similar to "cramps" experienced by swimmers when there is a temporary occlusion of a blood vessel.

The treatment depends upon the proper diagnosis. We must distinguish between myocardial disease caused by: Congenital; acute infections—rheumatic fever, diphtheria, pneumonia, gonorrhea, influenza, and pertussis; syphilitic; thyroid—Graves' disease, and adenomatous goiter (conditions in which there are no degenerative changes); and, degenerative types—hypertension, angina pectoris, coronary sclerosis, cerebral vascular crises, vascular nephritis, and coronary occlusion (all these may occur from age 25 on).

In cardiac disease caused by toxic goiter, there is increased metabolism but no pathology outside the thyroid; remove the thyrotoxicosis and the condition disappears. A patient with thyroid disease in the presence of other changes and advanced congestive heart failure, will come through a thyroid operation very satisfactorily. When heart disease and a thyroid condition are associated, we can usually treat the patient by absolute rest in bed. If substernal pain returns when the patient gets up, a thyroidectomy may be performed. If the entire gland is removed, the individual's metabolic rate drops to minus 30. With this lowered metabolism, the patient can usually get by and return to normal work without pain. Myxedema does not develop with a metabolic rate between minus 20 and minus 30; it occurs only if the rate is below minus 30; in that case, bring up the metabolism to between minus 20 and minus 30 with thyroid medication. In congestive failure, with almost constant pain, remove the thyroid, and the pain disappears. These cases, however, must be carefully selected. If there is angina even with rest in bed, under digitalization and subsequent coronary dilatation, not much is gained by extirpation of the thyroid.

Angina pectoris is a spasm of muscle in a different system; there is a spasmodic aptitude and constitution of the endocardium. As is the gear of the nervous system, so is the presence or absence of spasm.

Anxiety and responsibility influence, to a marked degree, coronary disease. It is just as important to readjust the mental and physical activities of the patient as it is to administer dilator drugs for angina. In other words, remove the stress and strain. It has been stated that the Chinese lack the spasmogenic aptitude—probably because they have always been a placid, gentle, peace-loving race. Essential hypertension is virtually unknown in China. In those Chinese, however, who have been raised and educated in the Occident, this condition has been known to occur.

Even with a family history of cardiovascular disease, one or more of the following environmental factors must be present: Frequent emotional upsets; infections; end products of improper diet; insufficient intestinal and renal elimination; excess nicotine, coffee, tea, etc.; obesity, diabetes; excessive or prolonged physical effort; long hours of nervous tension, mental concentration, and inadequate vacation.

Following arterial irritation, sclerosis develops, which in the coronaries may be followed by occlusion. No blood flows through the coronary arteries during cardiac

systole, virtually all circulates during diastole. Atheromatous conditions are apt to cause sclerosis. With depleted nutrition, the muscular tissue of the heart is thinned out and replaced by connective tissue. In coronary occlusion of the right ventricle, pulmonary embolism frequently occurs; cerebral embolism often follows left ventricular coronary artery occlusion. Occlusions of anterior vessels have worse prognosis than posterior occlusion.

Treatment: Nitroglycerin is a wonderful drug if used at the proper time, but the proper time is rare. Since pain itself is merely a warning signal, it is unwise to remove it. A pain that will disappear on the administration of nitroglycerin will also disappear with elimination of the cause, and on resting in bed. A patient will not stop with 1 dose, 2 or 3 doses are usually taken in a half hour's time, causing the blood pressure to drop too low. It is only when it goes into a coronary thrombosis that the stopping of what they are doing will not relieve the pain, nor will nitroglycerin. Morphine up to gr. 1 and gr. 1½ per diem may be necessary to combat insufferable pain not relieved by cessation of occupation and rest in bed. Digitalis contracts the coronaries, therefore, it is contraindicated; it increases the irritability of an already oversensitive ventricle and produces fibrillation which may terminate fatally.

Other drugs of value: Theophylline ethylenediamine, 1½ to 3 grains; theophylline calcium salicylate, 4 to 8 grains (advantage over others, does not upset stomach); theobromine calcium salicylate, 7 to 15 grains; theophylline sodium acetate, 10 to 20 grains; theobromine sodium salicylate (diuretin), 10 to 20 grains, and theophylline (theocin), 10 to 20 grains. Theobromine compounds are of value not only in angina pectoris but also in the beginning of myocardial insufficiency.

In discussion, Chester K. Kistler exhibited a heart taken from a man aged 68, who was a clerk by occupation. After suffering 4 weeks from a gastric ulcer, he was sent to the hospital, dying the following morning. Although there was no apparent precordial or substernal pain, the necropsy revealed a thrombosis followed by rupture of the left ventricle, with subsequent healing of the ventricular wall. Death was due to a perforation of the stomach. The cardiac condition had evidently been corrected by nature.

Le Roy W. Frederick asked if in a case of coronary occlusion does nature establish sufficient collateral circulation to bring about a cure? Dr. Stroud replied that Dr. Kistler's specimen illustrates the problem and answers that question. The patient was unaware of the fact that he had heart trouble, and since his heart healed as it had, that heart was practically as good as before the rupture. If just one vessel is occluded and a normal blood supply is maintained, such an individual will suffer no apparent inconvenience.

PEARL E. HACKMAN, *Reporter*.

CHESTER

Dec. 19, 1933

The stated meeting was held at the Chester County Hospital, Dec. 19, at 2:45 p.m., President Robert C. Hughes in the chair. The secretary was authorized to sell all or part of the government bond in possession of the society if he deems such a procedure necessary to meet the current expenses of the society. It was decided that the luncheons should be continued as in the past. John A. Farrell stated that he had been refused recently permission by Dr. Cameron to address the stu-

dents at the State Teachers' College, West Chester, in the matter of the Tuberculosis Seal Campaign because of his activities concerning the employment of a student health physician, and he asked for the support of the society in demanding an explanation from the College authorities for such action. This support was unanimously voted. Dr. Farrell and the secretary was instructed to write Dr. Cameron for an explanation. Dr. Farrell in reporting for the Committee on Medical Economics spoke of the work which the committee had performed in informing the physicians of Chester County concerning the matter of the payment for medical care of those patients on Unemployment Relief. Henry Pleasants, Jr., presented a resolution asking the judges of the Court of Chester County to appoint a commission for the purpose of investigating all complaints relative to the distribution of food and supplies to the poor of the county.

A paper was read on "Neurosyphilis" by Meyer K. Amdur. He stressed the facts that syphilis of the central nervous system may develop years after a previous blood infection; cerebrospinal fluid Wassermann test is necessary for its diagnosis; and a fair conclusion cannot be drawn from the study of the blood alone. The general practitioner of medicine is too reluctant to do a spinal puncture and very few fatalities ever occur following this operation. In the diagnosis of neurosyphilis, many mistakes are easily made and such diseases as epilepsy or diabetes must be accurately distinguished from syphilis of the nervous system. Treatment of neurosyphilis has entirely changed during the last 15 years. Great advance has been made in the treatment of neurosyphilis. Artificial fever can be attained by the use of infra-red, hot baths, malaria, diathermy, etc., and the virtue of the treatment is dependent upon the fever rather than the method of obtaining the fever. Dr. Amdur does not advocate the use of neoarsphenamine, in the treatment of neurosyphilis.

Joseph V. Klauder, of Philadelphia, spoke on "General Syphilis," presenting 33 slides emphasizing various aspects of the disease. He particularly stressed the fact that the diagnosis of syphilis is of utmost importance before the Wassermann test becomes positive. If treatment is started in the negative Wassermann stage, the disease is quite curable. A very important diagnostic factor accompanying the first outbreak of the disease, is enlargement of the lymphatic glands; another common symptom is sore throat. Such signs as Hutchinson's teeth and mulberry molar are indicative of congenital syphilis. The importance of spinal fluid examination was emphasized. In treating the disease, the use of that great triad, bismuth, mercury, and the iodides, was urged.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DAUPHIN

Jan. 2, 1934

The monthly meeting was held Jan. 2, in the Academy of Medicine Building, Harrisburg, President George B. Stull in the chair.

The diphtheria immunization program in charge of the family physician instead of various civic agencies is working out very satisfactorily to all concerned. The new Physicians' Credit Exchange has uncovered some amazing facts and has undoubtedly saved many physicians time and money losses from unscrupulous patients.

The following officers were elected for the ensuing year: President, E. Kirby Lawson; vice president, Louise H. Taylor; secretary-treasurer, J. Arthur Daugherty; district censor, David S. Funk; censor,

Howard E. Milliken; trustee, George B. Stull; delegates, John F. Culp, Edward A. Nicodemus; alternate delegates, John B. McAlister, Harvey F. Smith, Harvey A. Stine, and John R. Plank; reporter, Samuel B. Fluke.

Retiring President Stull read a paper on "Gallbladder Disease, Acute and Chronic, the indications and contraindications for immediate or deferred surgery."

Harold A. Miller, director, State Medical Relief Board, complimented the physicians on their conscientious and hearty cooperation with the State Emergency Relief Board. The maternity ruling has been so modified that a doctor presenting a medical order form, if the prenatal visits could not be made, will be honored until March 1. The education of these people in prenatal care will be a marked benefit to the State, the county, and the health of the community in contradistinction to the results obtained from the care of a midwife. In the future food orders will carry information and instruction to pregnant women as to how to obtain an order for pre- and post-natal care. Refreshments were served.

SAMUEL B. FLUKE, *Reporter*.

FAYETTE

Nov. 2, 1933

The Fayette County Medical meeting was held in the Medical Hall of the Uniontown Hospital, Nov. 2, at 2 p. m., with Eben R. Ingraham presiding.

Charles Geschickter and Murray Copeland, of Baltimore, Md., conducted a tumor clinic, diagnosing and discussing many interesting cases including: (1) Case of adamantoma of the right side of the mandible: Adamantomas usually begin early in life giving no symptoms until later. Similar tumors frequently undergo cystic degeneration, producing a soap bubble effect on roentgen ray and necessitating resections. (2) Case of fibroma molluscum: This case presented multiple subcutaneous lesions which are associated with the nerve sheath in the corium of the skin. Multiple occurrences may be anywhere in the body as in the meningiomas. They may undergo malignant change which is usually found if deeper nerves are involved. Many cases present familial histories. They often begin as pigmented spots with small underlying nodules forming. Occasional bony changes are due to pressure of the existing subperiosteal tumors. These are often mistaken for bone cysts. About 20 per cent become malignant. (3) Case of Hodgkin's disease of 4 months' duration: Diagnosis was made on biopsy and roentgen ray. Hodgkin's disease usually begins on the left side of the neck at the junction of the jugular and superior claviculic vein as in embryonic development. In these cases, roentgen rays of the mediastinum are important. The liver and spleen are rarely enlarged except in abdominal Hodgkin's disease. Seven per cent have enlarged spleens. The treatment consists in suberythral doses of irradiation; later, small and repeated transfusions with the general treatment for tuberculosis. (4) Pituitary tumor: Previous to operation this patient had complained of amenorrhea and poor vision. Post operative symptoms have almost entirely disappeared. There are 4 main types of pituitary tumors. (i) Eosinophilic adenoma of the lobe. These tumors can cause an increased sugar tolerance, disturb water balance because of pressure, acromegaly or gigantism. (ii) Basophilic tumors. These are rare but if present produce an altered fat distribution and changes in the secondary sexual characteristics. (iii) Chromophobe tumors, containing the chromophobe cells of the pituitary. The

case presented was a tumor of this type. These tumors cause dispituitarism and abnormal menstruation. (iv) Carcinoma which is usually secondary in the pituitary. (5) Case of leukoplakia of the tongue. Leukoplakia and syphilis are precancerous lesions. They can be minimized by lichen planus. The treatment consists chiefly of oral hygiene, probably with the aid of salvarsan and sodium perborate; $\frac{1}{2}$ tablespoonful magnesium sulphate each morning is beneficial as is a little fulguration each day. Vitamin A should be abundant in the diet. (6) Tumor of left breast of a year's duration. Tumors larger than a 25-cent piece that transilluminate clear are usually cystic mastitis. Tumors smaller than a 25-cent piece that transilluminate dark are either carcinoma or cysts filled with blood. (7) Case of osteitis fibrosis cystica. This is believed by many to be due to hyperfunction of the parathyroid which may often be misplaced. Patient presented was age 8 and probably too young for parathyroid disturbance. Blood calcium and blood phosphorus estimates are important. The cystic condition of the tibia seldom responds to treatment. Irradiation produces very little effect upon the lesions but may have some benefit if given over the parathyroid gland which will undergo a change before the thyroid. If no benefits result from this treatment exploration of the tibial nerve may be necessary. When growth has been reached a subperiosteal reflection may also be beneficial. (8) Tumor of right forearm and left thigh. Patient had tumor of the thigh which had been present for 14 years increasing in size and occasionally breaking down. Tumor of the right forearm had been present 2 years. After removal, microscopic section proved it to be a xanthoma. In this case it grossly presented an unusual lemon yellow color. (9) Case of chronic cystic mastitis of the mammary glands. The breasts were of a shotty type, tumors transilluminating clearly. Any similar doubtful cases should be watched carefully at short intervals. A biopsy should be done if any change occurs. Less than 25 per cent of chronic cystic mastitis lesions are called precancerous.

Cases of granuloma inguinale, gumma of the larynx, epulis of the upper jaw, and a myxoma of the gastrocolic omentum were presented and discussed.

Dec. 7

The monthly meeting was held Dec. 7.

Harry G. Noah of the West Penn Hospital, Pittsburgh, read a paper on "Some Points on the Diagnosis and Treatment of Tuberculosis." He said in part: There were 100,000 deaths in 1932 due to tuberculosis. Some localities have an alarming increase in the number of new cases during the past year, more especially between ages 15 and 25. Early diagnosis is very important as the more extensive the lesion, the less chance of recovery. A complete study of the case with numerous examinations is necessary to make the diagnosis. Rest is the essential part of the treatment. If there is no improvement in 4 to 6 months, other methods of treatment are necessary. Formations of new cavities are of extreme value in the prognosis and may indicate early collapse to necessitate healing. The method of examination should consist of: Case history; physical examination; roentgen ray; laboratory studies on sputum, and blood count, sedimentation, and complement fixation.

The 5 cardinal symptoms of pulmonary tuberculosis are: Evening fever, hemoptysis, fatigue, cough with sputum, and tachycardia.

The minimum findings for a positive diagnosis are: Positive sputa, moisture out of the apex, roentgen-ray

changes, unexplained hemoptysis, and idiopathic pleural effusion.

The differential diagnosis was detailed.

The treatment of pulmonary tuberculosis consists of: (1) Medical: rest, symptomatic, and specific (there is believed to be no specific treatment but rest, though reports on sanocrysin have been encouraging). (2) Mechanical: artificial pneumothorax. 3. Surgical: phrenicectomy, pneumolysis, and thoracoplasty.

The minimum indications for artificial collapse of a lung are: Failure to heal after 4 to 6 months' rest; persistent hemorrhages; cavity formation, and any progressive unilateral lesion.

Following the scientific program there was an open discussion on emergency medical relief in Fayette County.

Jan. 4, 1934

The monthly meeting of the Fayette County Medical Society was held Jan. 4, 1934, in the Medical Hall of the Uniontown Hospital, Eben R. Ingraham presiding. The annual election of officers was held as follows: President, L. Dale Johnson, Connellsville; vice presidents, first, Lewis N. Reichard, Brownsville; second, Ralph P. Beatty, Uniontown; secretary-treasurer, George H. Robinson, Uniontown; editor of the *Mirror* and assistant secretary, Charles F. Smith, Uniontown; reporter to State JOURNAL, Ralph L. Cox, Star Junction; district censor, Robert H. Jeffrey, Uniontown. Eben R. Ingraham, retiring president, was elected to the executive board of the Society, his term expiring in 1937.

During the year 4 members died; 4 were dropped for nonpayment of dues; 2 were transferred to societies in other counties; 2 were received from Washington County; and 3 new members were added, making a total on Jan. 1, 1934, of 118 members.

LeRoy C. Waggoner, Brownsville, chairman of the Fayette County Emergency Relief Committee, gave a report of the work that members have been doing and cleared up several questions concerning the carrying out of the project.

Fred J. Blumenschein, local pharmacist, spoke on "The Cost of Medicines and Their Preparation." He gave the variation in the prices of medicines and the difference in the cost and efficiency. The overhead cost of each prescription in Fayette County amounts to about 50 cents; the overhead costs in stores in Pennsylvania amount to about 13 cents. A recent survey has shown that prescription costs are higher in cut-rate drug stores. Forty-four per cent of the products sold by cut-rate drug stores are substitutes. The prices of many drugs depend considerably on their purity, but more so on their manufacture, and also vary with the form of the drug.

At present, self-medication is at a high level. The drugs used are extremely expensive, most profits being used in advertising. He also gave a brief description of the Tugwell Bill. RALPH L. COX, *Reporter*.

FRANKLIN

Jan. 17, 1934

The annual meeting was held in the Washington Hotel, Chambersburg, on Jan. 17. The meeting was preceded by dinner at 6 p. m., at which 28 members and 4 guests were present.

The secretary's report showed a larger average attendance in 1933 than in any of the previous 10 years. The treasurer's report indicates the finances of the so-

ciety to be in excellent shape. William E. Seibert was installed as president.

Jesse O. Arnold, professor of obstetrics, Temple University Medical School, Philadelphia, spoke on "An Obstetric Conference On Your Cases and Mine." It was a clinical review of numerous cases occurring in the daily routine of hospital obstetric work with a discussion of some problems presented by members of the society as well as those in his own experiences, illustrated with lantern slides.

Dr. Arnold's views as to the cause and the treatment of eclampsia are not in strict accord with the teachings of the recent years. He stated with assurance and some positiveness that eclampsia is not due to a toxemia, at least not in its inception, but it is caused by retention of fluids in the body and the pressure of these fluids upon the brain centers brings about the convulsion.

He was equally positive in his opinion that every case of eclamptic convulsion may be quickly and permanently relieved by free drainage of the spine through lumbar puncture, and that other symptoms may be controlled by intravenous hypotonic solution of glucose and the liberal use of magnesium sulphate to dehydrate the system.

AMBROSE W. THRUSH, *Secretary*.

HUNTINGDON

Jan. 17, 1934

The Annual Banquet of the Huntingdon County Medical Society was held on Jan. 17, at the Huntingdon County Country Club. Members of the County Dental, Pharmacy, and Undertakers' Societies were guests as well as representatives of the judiciary, legislators, and the press.

Fred R. Hutchison was toastmaster. President William T. Hunt, Jr., was installed.

The speakers were: County Dental Society, W. C. Wilson, Huntingdon; Woman's Auxiliary to the State Society, past president, Mrs. Augustus S. Kech, Altoona; local Woman's Auxiliary, president, Mrs. William T. Hunt, Jr., Mrs. H. T. Stabler, superintendent, J. C. Blair Memorial Hospital; Undertakers' Association, Carl Brown, Huntingdon; trustee of State Dental Society, Fred Miller, Altoona; Pharmacists' Association, Maxwell Steel, Huntingdon; president-elect of the State Dental Society, Walter Lotz, Tyrone; and Augustus S. Kech, Altoona, trustee of State Medical Society and District Councilor.

After the dinner a social hour was spent with cards and dancing. WALTER ORTHNER, *Reporter*.

LACKAWANNA

Dec. 5, 1933

The meeting held Dec. 5, was conducted by President Milton M. Rosenberg. Arthur M. Shipley, professor of surgery, University of Maryland, read an address on "Suppuration Within the Thorax," illustrated with slides.

Dr. Shipley said in part: Recently reported series of necropsies have listed suppurative pericarditis in a large percentage of cases dying with pneumonia. Too frequently thoracic suppurations are completely missed. Pyopneumothorax is an end result of empyema which has been overlooked until too late for successful surgery.

In children who have been diagnosed late, a tremendous compression results with mediastinal displacement and a high mortality, particularly if empyema appears

as a complication of infectious disease. It is well to remember that resonance is not impaired until late in the condition, also that breath sounds may not be changed in quality. The diagnosis of free empyema being made, there are 3 methods of approach: Inter-costal stab; suction drainage; and open thoracotomy. In the early empyemas of children, repeated drainage is the first step, followed by intercostal stab and tidal irrigation. Tidal irrigation is not successful in pneumococcus empyemas of many days' duration because of the large flakes of coagulum.

During the influenza epidemics of the World War period, there was a somewhat different type of empyema noted and characterized as a "hot empyema" with blood-tinged, cloudy fluid of high cell count, always containing streptococci. One generally considers pneumococcal peritonitis and meningitis as invariably fatal, but within the thorax as the etiologic factor in empyema, the pneumococcus is, comparatively, one of the most benign of organisms.

Any patient with pneumonia who improves and then begins to run a fever, almost always is a case of localized empyema. Diagnosis is best made by aspiration. If the needle is inserted along the top of the rib and pointing upward, with the piston of the syringe somewhat withdrawn, many dry taps will be eliminated.

In most of the intrathoracic pathologic conditions, diagnosis may be extremely difficult without consultation. The clinician, roentgenologist, surgeon, and bronchoscopist should be asked to state their opinions in the presence of pulmonary infarction, bronchiectasis, bronchial fistula with chronic pyopneumothorax and others of similar nature. Bronchoscopic examination and drainage and thoracic surgery, following an accurate diagnosis, checked by roentgenograms, now allow eventual cure in a large proportion of these once hopeless cases.

In discussion, Frederick J. Bishop said that postural drainage is of much importance and should be used early. The bronchoscopist should be called immediately if a diagnosis of bronchial fistula or bronchiectasis is made. He does not approve of aspiration by syringe for diagnostic purposes because of the frequent contamination of the pleura. Louis A. Milkman said that the lateral view of the chest is of great help to the surgeon. Unless the surgeon has stereoscopic vision, the stereoscopic roentgenogram is of little help. Suppurative pericarditis may be distinguished by fluoroscopic examination. In subphrenic abscess there is pneumonitis above the diaphragm. J. Norman White stated that the empyema of influenza refills rapidly and aspiration gives no help. He has seen cases of osteomyelitis of the ribs after rib resection for drainage of empyema and, therefore, prefers to aspirate between the ribs. A. M. Shipley, in closing, said: "Always drain an empyema immediately upon making the diagnosis. The tendency is to play around with aspiration while the pressure increases to dangerous proportions. After bronchoscopic drainage the patient is improved and prepared for operation. Repeated artificial pneumothorax induction will often result in infection of the pleura. Oleothorax is generally of little use."

Dec. 19

The regular scientific meeting was conducted by President Milton M. Rosenberg. James K. Hall, medical director of Westbrook Sanatorium, Richmond, Va., brought a welcome variation from the realms of empiricism and dogma in his paper "On the Difficulty of Being Civilized." He said in part:

Some one has defined instinct as the tendency to act in such a way as to produce certain ends, without having any knowledge of what those ends will be, and without having been trained in the performance of the acts which lead to the accomplishment of those ends. The innate tendency to behave in definite and fixed fashion must be bound up in every unit of structure, whether the living thing be a complex, sentient being or only a single-cell organism. Living structure must carry with it behavior tendencies, transmitted through the probably millions of years of ancestry behind it; and the law of evolution must be as definitely at work in the world of conduct as in the world of structure and of form. In the domain of behavior, instinctive trend occupies the same relative position as that occupied by embryology in the field of structure. The student of anatomy cannot understand the structure of the adult human body without having an understanding of the embryo out of which the body develops. The student of human mental processes cannot understand the operations of the mind without knowing something about the ways of instinctive behavior.

Developed out of these primitive, structurally inherited trends come all the higher mental activities. What other purposes do instinct and intelligence serve than the preservation of the individual and the perpetuation of the species? In these 2 trends, the self-preserved and the race-perpetuative, are comprehended all the strivings of all life. We give little thought to the usual performances of the day, they become almost as instinctive. After all, life is but a series of hungers and our instinctive efforts to gratify them or to refuse them gratification.

Our instincts are in numbers almost as multitudinous as the sands of the seashore, around them are built up all the great emotions, joy and sorrow, love and hate, hope and despair. The neuroses represent the efforts of primitive instincts to manifest themselves against the disapproval of civilization. It is impossible to be civilized and at the same time to be wholly natural. Perhaps it is equally as impossible to be natural and at the same time, neurotic.

There is no other passion so forceful as fear. We are each of us in our own lives familiar with the upheaval that takes place in the grosser physiologic processes during an episode of fear—the tautened muscles, the throbbing pulsations, the erratic breathing, the dry mouth, the cold skin, and the muscular twitching. The emotion of fear arises not directly as the result of a terrifying object. We become afraid because we flee, we become enraged because we fight; we feel distressed because we cry. The fear comes after and because of the changed condition of the body.

Fear much oftener than necessity calls the doctor into the home. And how often do we minister to the terror of the family through the medium of some simple potion for the patient who needed nothing at all. I have little doubt that 30 or 40 per cent of all patients who come to their doctors for diagnosis and treatment are disordered in their emotions, rather than in their organs. Fear creates alcoholic and drug addiction. Individuals so addicted are afraid of life. They resort to the use of some substance to allay their fear. The successful doctor is the doctor who can cope with such fears; the unsuccessful physician is the one who cannot handle them.

If fear be bad for the individual, what commotion does it cause in the multitude. By appeals to fear ignorant nurses tyrannize over their charges, senseless parents make neurasthenic wrecks of their offspring;

fear places the lash in the hands of incompetent teachers; out of fear, theology has created a hounding devil and a burning hell; too many evangelists live and grow fat by the use of it; fear manufactures locks and keys, it builds jails and penitentiaries, it maintains an electric chair in many a state prison for the purpose of keeping you and me scared into good citizenship. Fear polices cities; it manages political campaigns; it makes one citizen afraid of the disapproval of his neighbors. Fear is synonymous with cowardice, intolerance, bigotry, cruelty, persecution, ignorance, superstition, hypocrisy and deceit.

What are doctors going to do about these manifestations of fear? We must realize in the first place their existence, their terrible reality, the many and devious ways in which they present themselves, and above all things we must learn, if we do not know it, that no human being wishes any other mortal to know that he or she is afraid, because fear is looked upon as an exhibition of cowardice. There can be little doubt that many psychoses—genuine insanities—are only manifestations of overwhelming fear. In such a situation it will devolve upon us to discover and to drag the fear out of its hiding place and into the full light of day.

Civilization is a failure—often. Every prison confirms that statement; every reformatory proclaims its truth; every inmate of an asylum for the mentally ill represents the failure of the individual to measure up to the social demands of what we euphemistically call civilization. Man's unhappy and unsuccessful attempts to civilize himself and his kind are responsible for all the tragedies of history. One of two things is true—we are either unfit for such civilization as we have fabricated, or it is unfit for us. What is right?—and what is wrong? What does a puny mortal know about either? Is not right today, wrong tomorrow and vice versa?

One light only can illuminate our own professional pathways and the pathways of our patients. That light is truth.

Dec. 26

Members of the Lackawanna County Pharmaceutical Society were invited as the guests of the local medical group to hear the speaker of the evening, John A. Kolmer, Philadelphia, professor of medicine at Temple University. The meeting which was attended by a large number of both organizations was held in the auditorium of the Chamber of Commerce. Dr. Kolmer, taking as his subject, "The Present Status of Biologic Therapy in the Prevention and Treatment of Disease," dealt largely with present day methods of standardization and the determination of the efficacy of prophylactic and clinical treatment.

Jan. 2, 1934

The first meeting of the new year was called to order at the Chamber of Commerce by President Walter W. Propst. Francis C. Grant, Philadelphia, assistant professor of neurosurgery, University of Pennsylvania, gave an address on "The Surgery of the Spinal Cord."

Dr. Grant said, in part: The surgery of the spinal cord is logically divided into that having to do with trauma to the cord, and that having to do with tumors impinging upon or invading the cord. Traumatic surgery of the spinal cord generally becomes necessary after dislocation, subluxation or fracture of the vertebrae. If there is evident injury to the cord, the question immediately arises whether surgery can improve or relieve the condition. It is generally admitted that if there is gross injury to the cord, with roentgen-ray

evidence of impingement of bone on the spinal cord, or if there is evidence of cerebrospinal fluid block as shown by lumbar puncture in the first 10 hours, laminectomy is indicated for relief of pressure.

Many surgeons who have seen large numbers of these cases, particularly in the coal regions, believe that no benefit is derived by operative procedures. It is always a question whether as much relief might not have been gained spontaneously. Early evidence of a lesion may come from pressure on the cord of short duration and quickly released. A thorough and complete neurologic examination should be made and charted immediately upon admission, and repeated every 12 to 24 hours. Operative procedures should not be considered unless there is a rapid and progressive increase in the symptoms. In a recent series of 15 cases of fracture-dislocation of the vertebrae with lesion of the cord, those with fracture dislocations in the cervical region all died; those in the thoracic region did well, one out of 6 dying; those with lesions in the lumbar region all got well.

Tumors of the spinal cord if diagnosed early and removed give very good results.

Surgery of the spinal cord has been developed to a high degree. The Spiller-Frazier operation for the relief of pain in chronic conditions consists of section of the anterolateral segment, after laminectomy at a predetermined level. This removes the sensations of pain and temperature without loss of motor power.

In discussion, Franklin F. Arndt said that many mine cases with traumatic injury to the cord are seen. They do much better without laminectomy and most of the men recover without surgery. In compression-fractures with impingement, at least 75 per cent have returned to work without operation. Treatment generally consists of hyperextension with a plaster cradle for 5 to 6 weeks, then a plaster jacket or corset for from 8 months to a year. J. O. MacLean said that in a recent series of 24 treated cases in which no operation was performed, 12 are back at work, 5 are under treatment, 1 is disabled, and 6 are dead; 3 cases showed increasing symptoms for 3 days, then regression took place and finally all made complete recovery. Dr. Grant, in closing, said that one of the most difficult problems in these cases is care of the bladder. It is best to call the genito-urinary service in consultation. One of the best methods is to use an indwelling catheter, changed every 3 days, irrigated frequently, and urinary antiseptics given by mouth. The catheter should be released every 8 hours in an attempt to produce an "automatic bladder."

Jan. 9

The meeting was called to order by President Walter W. Propst. It was reported that the work of the Temporary Medical Relief was proceeding successfully. Three new members were voted upon and admitted: James N. Edmunds and James F. Reddington, Scranton; and William M. Howell, Avoca.

Upon the request of Mayor Stanley J. Davis and his director of public health, Arthur E. Davis, an advisory committee was appointed from the membership of the society to work in coöperation with the city department of public health in handling any problems which may arise in connection with the stamping out of disease and insanitary conditions in the community.

Carl Bucher, Philadelphia, assistant director of clinical laboratories, Jefferson Medical College, spoke on the "Relation of the Clinical Laboratory to the Clinician." He said in part: The rise of clinical pathology has introduced new problems and aggravated old ones.

The clinical pathologist is a physician, first and foremost, not a Ph.D., learned in research, not a technician, and not a nurse. He must report on specimens, confirm diagnosis by instruments of precision, consulting and rendering opinion if requested. If a physician depends upon the reports of a lay technician, he betrays the confidence of his patients. Use the laboratory hard, often, and long, to confirm clinical diagnosis; but remember that all the laboratory tests in the world cannot take the place of a good history and careful physical examination. Useless requests for examinations waste the patient's time and money and lessen the respect of the patient for the doctor. The hospital staff meeting is the place to settle the need for new tests. A useful test should: Possess a high degree of accuracy; not be too technical; be necessary; and not be too expensive. Call on your pathologist, ask him to demonstrate. Encourage him to visit your operating rooms and wards. It is only by teamwork that medicine will reach the high plane which is its goal.

FREDERIC B. DAVIES, *Reporter.*

LANCASTER

Jan. 3, 1934

The regular monthly meeting of the society was held on Jan. 3, at 8:30 p.m., in the Medical Club rooms.

T. G. Miller delivered an address on "Achlorhydria." He stated that distinction must be made between achlorhydria and achylia. The former term is used to designate a condition wherein free hydrochloric acid is absent in the stomach contents examined after the usual test meal. The latter refers to the condition in which there is total inability of the stomach mucosa to secrete hydrochloric acid even after the use of histamine.

Three to 4 per cent of all subjects have achylia on an hereditary basis. The stomach in such individuals is more vulnerable to disease and the general organism of the person is more susceptible to disease. Eighty per cent of all persons have normal gastric secretion. This group comprises those individuals who may have many indiscrete habits but still seldom suffer from ulcer, carcinoma, or primary pernicious anemia. Ten per cent of persons have abnormally high hydrochloric acid and such cases will usually develop ulcer sooner or later. Ten per cent have an abnormally low hydrochloric acid, and these are susceptible to certain diseases. These persons must make good use of the teeth and saliva, and use good judgment in the choice of diet, especially avoiding irritants. They frequently experience gaseous eructation each morning and have considerable mucus in gastric contents. A pathologic specimen from a stomach of such a subject, if properly obtained and fixed at once, will show round cell infiltration and some fibrosis, in large part presenting the picture of chronic gastritis.

The disease to which this group is subject is just chronic gastritis as mentioned above. A certain percentage will also develop carcinoma which Dr. Miller thinks is secondary to the gastritis. The carcinoma does not cause a loss of hydrochloric acid, but the hydrochloric acid has been absent for some time previous to development of the carcinoma. In cases in which carcinoma is found in a stomach secreting acid, the patient's prognosis is usually much better after operation than in cases in which no acid is present. A third condition found in association with achlorhydria is primary pernicious anemia. A fourth condition com-

monly seen is the hypochromic anemia, for which large doses of iron have been so beneficial.

One new physician, J. Harry Pickle, of Columbia, was proposed for membership. The retiring president, Elmer T. Prizer made an address.

The following officers were elected: President, William G. Hess; vice presidents, William H. Herr and Edward S. Crosland; secretary-treasurer, Charles P. Stahr; reporter, John L. Atlee, Jr.; censors, Clarence R. Farmer, Jacob E. Hostetter, and J. Paul Roebuck.

WILHELMINA S. SCOTT, *Reporter.*

LUZERNE

Dec. 21, 1933

The regular meeting was held in the Medical Building, Dec. 21, with President Charles L. Shafer presiding. Norman A. Karmelowitz, Wilkes-Barre, and Edward M. Hill, Pittston, were elected members. The following were elected for office for the year: President, Edward W. Bixby; vice president, Joseph P. Dougherty; secretary, Irving O. Thomas; financial secretary, John J. McHugh; treasurer, Boyd Dodson; censor for 3 years, Lewis L. Rogers, Jr.; editor and librarian, Lewis T. Buckman; reporter, Marjorie E. Reed.

Peter P. Mayock, Wilkes-Barre, gave a paper, supplemented by lantern slides, on "Renal and Ureteral Anomalies." He said in part that the purpose of the paper is to call attention to the frequency of urogenital anomalies, the rôle they play in kidney pathology, and how diagnostic urology has made possible their recognition and classification. Necropsy findings placed the incidence of anomalies of the urogenital system second to anomalies of the osseous system; since the advent of retrograde and excretory urography some observers feel that a revision of this classification will be necessary.

No other system of the body presents such peculiarities of development as the urogenital. Instead of one set of urinary organs developing and persisting, 3 sets develop at different stages in embryonic life in the human.

The most practical classification is according to form, number, position, structure, and vascularization. Unilateral absence or single kidney is not uncommon. The commonest form is the horseshoe kidney. As to position, it is important to distinguish between ectopic kidneys, which are congenital, and movable ones which are acquired. Structural ones may be considered under congenital hypertrophy, hypoplasia, atrophic kidneys and polycystic kidneys.

Vascular anomalies are of great importance and additional vessels are the most frequent abnormality. Frequently the ureters and pelvis alone will be anomalous. Anomalies of the ureteral lumen as strictures and stenoses, kinks, and valves, may result in hydronephrosis or atrophy of the kidney. Anomalies of implantation including those cases in which the orifice is found in some other organ than the bladder.

In conclusion, anomalies play an important rôle in kidney pathology.

Jan. 3, 1934

The stated meeting was held in the Medical Building, Wilkes-Barre, Jan. 3, 1934. President Edward W. Bixby presided; 95 visitors and members were present.

The following committees were announced: Permanent chairman of the Toxin-Antitoxin Committee, Charles B. Crittenden; Public Relations, Joseph C.

Kocyan, chairman, Gerald N. Fluegel, and Charles F. Netzel; Program, Frank M. Pugliese, chairman, Lewis S. Reese, and Lachlan M. Cattanach.

Eldridge L. Eliason, professor of clinical surgery, University of Pennsylvania, gave a paper, supplemented by lantern slides, on "Indigestion, Its Surgical Significance." He said in part that a few years ago more symptoms were mentioned as diagnoses but through the use of the roentgen ray, stomach tube, *etc.*, a correct diagnosis can be made. Our concept of indigestion has been changed. Gallbladder disease can come earlier than age 40, as formerly supposed. If the abdominal catastrophe can be decreased by early and consistent treatment then the mortalities can be decreased. A few years ago nothing was known of duodenal ulcer and all were called gastric ulcers.

The causes of indigestion are usually surgical especially if persistent and associated with pain. Most of these are extra-gastric, only 2 per cent being due to gastric conditions; 16.4 per cent are due to gallbladder; next, from duodenal ulcer; next, to cancer of the stomach; and next, to gastric ulcer. These were found to be true in the University Clinic. Of the latter, 26 to 30 per cent heal and there are no symptoms. In 7700 cases in Bellevue Hospital, New York City, 34 healed duodenal ulcers were found. One out of 4 gastric ulcer cases never go to the surgeon.

Cancer of the stomach is third in this group. Only in the late stages is persistent pain a symptom. Fifty per cent of the cases are operable; 25 per cent of these can have a palliative operation only. Since there is no known cure the cases are not diagnosed early. At the end of 5 years only a few are alive. In Chicago, Gatewood found that symptoms existed $3\frac{1}{2}$ months before a doctor is consulted and it is $8\frac{1}{2}$ months before the patient comes to the surgeon. Surgery is the only cure.

Necropsies show that 30 per cent of adults after 30 years show gallstones; 60 per cent show biliary disease.

Duodenal ulcer is a disease of America. The incidence is 9:1 to gastric ulcer; 70 per cent of the cases have a definite history so one must give good treatment to effect cure. These are divided into 4 groups: (1) Early cases with no symptoms, perforating ulcers or severe hemorrhage; (2) symptoms are found in nervous, high-strung, business persons. There is hunger pain with periodicity (90 per cent of the cases are in this acid group), and the patients do better by being fed; (3) a patient puts on weight and is feeling better (the ulcer now is retracting and there are only gaseous eructations); (4) the contractions continue, noisy peristalsis, vomiting, and gastric retention are present, the patient loses weight and cancer is suspected.

The catastrophies are perforation, hemorrhage, peptic, jejunal marginal ulcers, following operations. More than 60 per cent who once had exsanguinating hemorrhage will have a second one. Treatment is absolute rest, morphia, ice cap to the abdomen, fluids subcutaneously, some give a diet and others starve them. The stomach should be kept empty with the stomach tube. Let the blood pressure fall to a low level and then use transfusion. One out of 5 die if a perforation exists. If proper treatment is given so many need not die. Treat these medically and if there are more than 2 attacks operate. What surgery? In U. S. A., France, and England posterior gastrojejunostomy has the lowest mortality. Multiple ulcers are more frequently found in Europe than here.

Why do we have the third catastrophe, and how do we prevent the marginal or jejunal ulcers? In these there is much acidity, 23 per cent of cancer cases have

free acid. These ulcers follow more frequently after anterior gastrojejunostomy. They are prevented by the posterior gastrojejunostomy, careful placing of the sutures, the use of absorbable catgut, and leaving enough loop in case another operation is necessary. There must be careful observance of diet for the remainder of one's life.

Perforation is often thought to be appendicitis. It is recognized by extreme rigidity of the abdomen, and a "frozen" posture is due to the intense pain.

In conclusion, early diagnosis reduces the mortalities. There are 90 per cent good results if operation is done early.

Gastric polyps give vague, indefinite symptoms of indigestion and it is missed unless a roentgenogram is taken. This should be kept in mind. Malignant degeneration is present in more than 30 per cent.

In discussion, Samuel P. Mengel, Wilkes-Barre, asked concerning the mode of treatment of the perforated ulcer if the first operation was only a simple closure. Dr. Eliason said that he cauterized the perforation, and closed with interrupted gut. In 30 cases only one needed a secondary operation. He has a patient who has had 3 perforations and is followed up every month. A perforation seems to cure the ulcers.

MARJORIE E. REED, *Reporter.*

LYCOMING

Dec. 8, 1933

The meeting was held Dec. 8, at 1:45 p. m., George Schneider in the chair. The following nominations were made for 1934: President, Warren N. Shuman; first vice president, Herbert P. Haskin; second vice president, Louis E. Langley; secretary, Walter S. Brenholtz; treasurer, John A. Campbell; librarian, Wesley F. Kunkle; reporter, LaRue M. Hoffman.

Albert F. Hardt read an illustrated paper on "Electrosurgery and Radium in the Treatment of Carcinoma of the Breast." He stated that every breast tumor by reason of possible malignancy calls for removal and histologic study. After having considerable experience with electrosurgery in this condition he considers the method ideal. If the current is right it will seal the smaller vessels and lymphatics as it cuts; it is ideal for hemostasis of the smaller vessels using the coagulation current, thus saving much time; and less catgut is left in the wound.

Many breast tumors are so definite grossly that biopsy is not needed and radical operation should be proceeded with at once. Biopsy and waiting should not be done if malignancy is strongly suspected. Radical removal should be proceeded with at once. It is rarely safe to make a negative diagnosis in a suspicious case. It is better to do a radical operation. Occasionally a radical operation will be done needlessly but it is a safer policy. In the radical procedure, both pectorals are removed and the axilla emptied of its fat and glands. The rectus fascia of the epigastric angle should be removed too. The preferable incision is one encircling the breast in an elliptical fashion, using the tumor rather than the nipple as the center, and extending up to a point located at the middle of the deltoid. This avoids postoperative disability from scar contracture of the axilla. It is safer to dissect the axilla with a scalpel, unless extremely skilled with the acousector.

Hypertension with arteriosclerosis might be considered a contraindication to electrosurgery, but in a recent case so done the result was excellent. So far as possible the axillary glands and fat should be removed

en masse and turned downward, attacking the pectoral muscles next. The cephalic vein should be preserved. Some of the larger vessels should be ligated. When cutting branches of the axillary vein, it is better to tie them a short distance away from the main vessel. If possible the long thoracic nerve should be preserved.

In 1929, Moore offered a method in which he recommended 1 or 2 needles of radium in the supraclavicular space and one each in the upper 5 intercostal spaces. In addition, one 25 mg. tube of radium is placed in the axilla within a rubber tube. A wire is so attached to the radium that the radium may be pulled through the rubber tube specified distances at specified times thus traversing the depths of the wound radiating as it goes. The radium is moved its length every 6 to 10 hours. Another like tube of radium is so placed as to traverse the wound in a vertical direction to the midpoint of the clavicle.

The incision can usually be closed if sufficient undercutting is done. "Pie crust" incisions will be necessary in some and skin grafting in others. If considerable raw surface remains and healthy granulations are present, adhesive strips over the area will hasten healing and leave a soft pliable scar. This method is destined to show a decided improvement in the percentages of 5-year cures.

Preoperative radiation should be confined to those considered inoperable. Some of these may prove to be operable later on, especially those which are radiosensitive. Preoperative radiation may debilitate the tissues so as to impair wound healing. Some cases of lymphangitis of the arm are due to the scar tissue so produced.

The practice of treating breast malignancy entirely by radiation is of too short duration to draw conclusions. Postoperative radiation is of unquestioned value.

LaRue M. Hoffman read an illustrated paper on "Body Mechanics and Its Relation to Abdominal Pain and Visceroptosis." The term, body mechanics, is now supplanting the old term, posture. Body mechanics is the mechanical correlation of the various systems of the body with special reference to the skeletal, muscular, visceral, neurologic, and circulatory systems. Posture is an old term and refers to the position assumed by the body as a whole. It implies degree of erectness of the spine, trunk, and extremities, but as ordinarily used does not include correlation of the various systems.

Good body mechanics exists in an individual whose spinal curves are not so extreme as to cause or threaten joint or muscle strain and disturbance of visceral function or relation and includes a margin of safety for sufficient mobility of joints without disturbing seriously the normal lines of weight bearing.

The external indications of good body mechanics are: Head erect and chin "in"; chest held high; lower abdomen in and flat, the upper abdomen being the more prominent; alignment of lower extremities such that lines of weight bearing pass through femur to tibia without angulation at the knee joint; lumbar curve gently concave, thoracic curve barely convex.

Faulty body mechanics is found in from 40 to 80 per cent of individuals for different observers. The draft boards rejected 40 per cent not because of organic defects but owing to poor physique concomitant with bad body mechanics.

There is no standard normal anatomic type. The type of an individual never changes but his body mechanics may change from good to bad or vice versa. It seems best to recognize the 2 extreme types and to regard the medium types as variations between the 2 extremes.

Two extreme types are the asthenic, or slender, and the sthenic, or stocky. Visceroptosis is more extreme in the asthenic type.

A plan for the determination of body mechanics: 1. General make-up. Slender or stout, shape of shoulders; one shoulder may be lower than the other, round shouldered, head too far forward, etc. 2. Extent of lumbar concavity with patient standing with his hips, shoulders, and occiput against the wall and his heels 4 inches away from the wall. Normally the flattened fingers can be inserted between the back and the wall. In some cases of marked lordosis the whole hand or the fist may be inserted. 3. Plumb line dropped from tip of mastoid should pass through shoulder, greater trochanter, just back of patella, and a little ahead of external malleolus. 4. Lateral roentgenograms in standing position. 5. Studies for postural scoliosis as indicated by one low shoulder, measurement of lower limbs, etc., lift under the heel, etc. Poor body mechanics may not cause symptoms during the younger years of compensation but may at a later time present them after youth and vigor are gone; but symptoms may be present in the young.

Signs and symptoms of bad body mechanics: Backache; cyclic vomiting in children; chronic or acute duodenal ilcus; functional albuminuria; neurasthenia; general fatigue and low physical reserve, eliminating other causes; foot strain; abdominal pain and tenderness; visceroptosis.

A caution was emphasized that one must be extremely careful in the cases in which parietal neuralgia and visceral pathology coexist and to operate if the signs indicate the need for it, but to advise the patient or his relatives that the pain may persist or return. The tests according to Carnett were reviewed. Bad body mechanics should be corrected in these cases sooner or later.

The main underlying cause of visceroptosis is poor body mechanics whatever the type of build. It is more apt to occur in the asthenic. In the latter type, the usual measures, such as bed rest, fattening, etc., are to be used, but when strong enough the lordosis and kyphosis should be corrected. It was shown by lantern slides that the stomach can be lifted as much as 4 or even 6 inches by a correction of the bad body mechanics.

Prevention of bad body mechanics is preferable to correction. The kindergarten age is the best time to start systematic training. Much training is now imperfect. In short, the Goldthwaite exercises given in Cochrane's *Orthopedic Surgery* (Wm. Wood & Co., New York City) are the best. The aim is in loosening up contracted spinal joints, in flattening the lumbar curve, strengthening the abdominal and buttock muscles, so rotating the pelvis that the symphysis pubis is raised, holding the lower abdomen in but leaving the upper abdomen relaxed, widening the subcostal angle, elevating the xyphoid, increasing the anteroposterior diameter of the chest, holding the head erect, and the chin "in" and of making the patient "posture conscious." Thus the patient is taught to hold himself in good position as nearly as possible every waking moment.

LaRUE M. HOFFMAN, Reporter.

McKEAN

Dec. 19, 1933

The annual meeting of the McKean County Medical Society was held in Hotel Emery, Bradford, Dec. 19, with 22 members present. The chair was occupied by Vice President Earle McC. McLean.

Persis S. Robbins reported on the Harrisburg session of the Committee on Public Relations of the State Society. Julius L. Waterman, chairman of the Advisory Committee to the County Emergency Relief Board, discussed the manner in which medical care for recipients of unemployment relief will be administered. Francis DeCaria, delegate to the State Convention, reported on the proceedings in the House of Delegates at the Philadelphia Convention.

The following officers were elected to serve during 1934: President, Earle McC. McLean, Bradford; vice presidents, first, Guy S. Vogan, Kane; second, Ralph E. Hockenberry, Smethport; secretary-treasurer, Persis S. Robbins, Bradford; reporter, Hilding A. Nelson, Mt. Jewett; censor, Floyd W. Hayes, Bradford.

HILDING A. NELSON, *Reporter*.

MIFFLIN

Jan. 4, 1934

The annual banquet was held in the Elks Club rooms in Lewistown, Jan. 4, the county society meeting conjointly with the Woman's Auxiliary. Twenty-six guests were present, including District Councilor Augustus Kech, of Altoona. This annual meeting is held for two reasons: First to afford a time to get together socially and discuss the affairs of the past year informally, and, second, to hear the address of the outgoing president, which is usually on the progress of medicine of the past year.

Mifflin County Society has entered into the State Emergency Relief work whole-heartedly. The Secretaries' Conference held at Harrisburg, Dec. 12, was attended by A. Reid Leopold who has acted semi-officially as adviser to the society and its committee. No definite information was available locally so a 5-page mimeographed folder was compiled containing the high points of the Rules and Regulations such as are familiar to most of us now. This was done on Dec. 12, 1933, and a copy mailed to each physician, osteopath, and dentist in the county. It was not anticipated that the work would be duplicated by the PENNSYLVANIA MEDICAL JOURNAL in its next issue, but the local members had their information through their county society in minimum time.

Councilor Kech addressed the meeting, outlining some of the State Society's plans for the year. Joseph S. Brown read a short paper on "The History of Medicine." Oscar M. Weaver acted as toastmaster. Mrs. Joseph S. Brown, of Lewistown, was named as sixth district councilor for the Woman's Auxiliary. Several physicians were prevented by illness from attending the meeting.

Percy E. Whiffen, of McClure, read the address of the retiring president, "Medicine in 1933—A Review," and said in part: The medical profession has been occupied with matters both professional and personal, especially in the field of economic adjustment to the community, particularly the past year, which seems to be one of transition. All in all, the passage of 1933 will leave a trail that will make it conspicuous in the memory of the general practitioner.

Many think that the Emergency Medical Relief is the first step in state medicine. We may safely trust the officers of the State Society to look after our interests, but at the same time everything seems to have a socialistic tendency and it behooves us to be awake to the interest of the physician. Dr. Morris Fishbein and associates in the A. M. A. are upholding the rights of the individual physician in preventive medicine, and recom-

mend a better understanding between organized medicine and the Public Health Association. The patient-physician relationship should be maintained, notwithstanding the breakdown in the realm of economics and the enlargement of free clinics every where.

Industrial medicine: Dr. Greenwood, of London, believing that accidents do not "just happen," was led into the appraisal of nerves in industry, through a study of trivial accidents which cause waste of time and materials. Dr. Greenwood found that the individual who on one day had an accident would be more likely to be a repeater and have an accident the next day, than would other workers.

In the treatment of pernicious anemia, the effect of a single intramuscular injection of concentrated gastric juice (addisin), the hematologic response in 2 patients was unique: 3200 c. c. reduced in volume to 5 c. c. in one case, and 5700 c. c. reduced to 8.5 c. c. in the other. Some of the signs of stimulation of bone marrow following the use of addisin have persisted longer than a month. A new therapy for peptic ulcer consists of continuous alkalized milk drip into the stomach. The object is to neutralize the gastric acidity throughout the 24 hours. A Rehfuß tube is passed into the stomach, connected with a Murphy drip indicator and allowing a solution of milk, containing 5 grams bicarbonate of soda to the quart, to drip continuously into the stomach at the rate of 30 drops a minute. The patient receives 3 quarts of milk and 15 grams bicarbonate of soda a day. The results of this therapy in 42 patients are reported as satisfactory. As a result of the many and better laboratory procedures it has become easier to make a diagnosis, and diagnosis has become more accurate. As a result of these scientific advances accumulating in such vast amounts it becomes impossible for a single physician to know and apply these refinements in his office. Yet the Committee on Costs of Medical Care believes that 90 per cent of all cases can be treated successfully by the general practitioner with the amount of equipment at his disposal.

A. REID LEOPOLD, *Reporter*.

PHILADELPHIA

Jan. 10, 1934

MEDICAL ECONOMICS MEETING

Mayor J. Hampton Moore of the City of Philadelphia delivered the principal address which dealt for the most part with the expansion of the city hospitals and the activities of the Department of Health over the past 10 or 20 years. This address appears in full in *The Weekly Roster*, the official publication of the society. The paper stressed particularly the tremendous burden imposed upon the taxpayers by the ordinary demands of the city's indigent which was amplified by an utter disregard of their own responsibilities on the part of many of our citizens who are sufficiently well-to-do to care for the infirm members of their own families, and who instead placed these relatives in the hands of the city for their care. A careful perusal of this address carries with it the conviction that Mayor Moore is heartily in sympathy with any movement calculated to divert the medical work back to the well-informed and capable private practitioner.

Frederick E. Elliott, of New York City, chairman, Committee on Economics of the Medical Society of the State of New York, read a paper illustrated by lantern slides, on the subject of economics, utilizing a novel method of presentation. In this paper, the essayist

emphasized a number of truths bearing upon the doctor and his economic problems in what he described in a staccato manner, repeating the same synchronously on the lantern slides so that those in the audience might read and ponder over the points as he delivered them. This manner of presentation is certainly one of merit and permits a subject the privileges of dogmatism without the speaker assuming the odium that usually accompanies such presentations. This paper covered a half-hour period, and does not admit of abstracting further than to state that it gave additional emphasis upon the principles that have been stressed by all speakers on this subject.

Seth A. Brumm, president-elect, Philadelphia County Medical Society, recited very fully the long list of outstanding accomplishments of the Committee on Medical Economics of the Society since its inception early in 1932. These appear in full in Bulletin No. 2, issued by the committee with the endorsement of the Board of Directors.

R. G. Leland, of the Bureau of Medical Economics of the A. M. A., gave an address replete with observations of the difficulties that confront the profession in all parts of this country. He said in part:

There are 2 or 3 things to which he objects strenuously; one is the intimation that medical economics deals primarily with the income of the physician—that is only a subsidiary of medical economics and does not involve the principles underlying the principles of the practice of medicine. The other is that some forces are encroaching, in fact, are urging us to do something against our will and better judgment. There was never a time when medical organization was more important than today. The study of medical economics cannot be done entirely by those who are your servants in Chicago. It cannot be done by the officers of State Societies; the study cannot be done adequately by your Commission on Medical Economics of the Philadelphia County Medical Society. This is a job for every physician, every where. It involves not only the establishment of principles, but the watching of these insidious forces that are trying to gain some kind of control, some kind of manipulation of medical service, not for public benefit, but for personal profit.

It remains for the medical profession to determine whether it shall be a lay dominated, controlled, and paid organization, or whether it shall preserve medicine as a profession for physicians. Here and there in the discussions of medical economics we come across a discussion of medical ethics and medical organization. True it is that there are those forces in some parts of the United States which would have us entirely re-state the principles of medical ethics under which the medical profession is now operating, and has operated for many years; they would have us re-write those principles in such way that would make the kind of business and practices which they should like to engage in become respectable, and become supported by organized medicine, regardless of the good or bad which results to the public from such practices.

The kind of medical economics to which we have always subscribed, which we believe is good for the individual, and which we try to apply to individual physicians in the private practice of medicine, is certainly a good type of ethics to apply to groups and county medical societies. There can be no difference in standards in medical economics. What is good for an individual, must be applied to groups and to societies. You have heard the program which has been announced by your chairman of the Committee on Medical Economics.

It should not require any word from me to emphasize to you the importance of these studies, studies not made on the basis of false standards and measures. To give you an illustration: A false standard used by the Committee on the Costs of Medical Care was in the measuring of morbidity. That committee used as a definition of illness: any condition for which medicine is purchased to the value of 50 cents is considered an illness. That is not a pathologic diagnosis of disease, but an economic measure, and the profession will certainly be called upon in devious ways if it uses an economic measure with which to make a pathologic diagnosis. Therefore, the study of medical economics must be done with a great deal of care, without bias, without preconceptions, and it must be done not with a view of making more money for the medical profession, or for an individual physician, or for a group of physicians—it must be done with the view in mind of giving the greatest amount of good to the public. It must be done with the idea of preserving to the medical profession the practice of medicine.

Here and there new forms of medical practice are found creeping in, and have been described in the *Journal of the A. M. A.* In the State of Washington, almost the entire State is being operated for a certain section of the population by means of contract practice, or some kind of pseudo-insurance methods.

We have not yet become entirely familiar as to the exact thinking about medical economics. We need to establish more of the principles, and be less concerned about speed in settling economic questions. Physicians in general prefer the more permanent to the superficial consideration of medical economics. There are certain people who insist that the medical profession must do something about the situation or something will be done to it.

We are never justified in making social changes unless the changes which are brought in are superior to those which are supplanted, and we are never justified in medicine simply in making a change for the sake of being busy. The practice of medicine basically is correct, but some of the abuses, some of the changes that have been described by all the speakers, and particularly the local abuses referred to by your Mayor, are the things that can and should be corrected, and that is the practical application of medical economics. Not so mysterious, but it requires that the individualism that has always marked the practice of medicine, the individualism which ought to be preserved by the individual in the treatment of his own private patients, must give way somewhat when we attack the problem of economics. This is the place where we must unite, we must not bring our individualism too strongly into play if the solution of medical economic questions is paramount; one physician here and there cannot possibly solve many of these questions.

He will not be listened to by politicians, by those laymen who wish to control medicine for a profit, but by a united organization, an organization representing the majority. Every reputable physician in this community ought to support and be a member of his county medical society; such an organization can do many things, in fact it has been stated by a politician, that medical societies do not know, have never evaluated properly, the power which they have. Let us use this power judiciously, efficiently, for the benefit of the public as well as for our own benefit.

What can we expect from the studies on medical economics? To preserve the type of medical practice best suited to public welfare, to preserve medicine as a pro-

profession, to suggest new, but legitimate methods for individual private practice such as immunization, periodic health examinations, etc., to correct abuses, and dangerous or destructive tendencies; and then what shall we do about some of these new forms of practice? After a careful study, we believe the Detroit plan can be practically applied to all forms of preventive and curative medicine. An unfortunate situation existing in many sections of the country, concerns hospitals in their ownership of the clinical pathologist, the anesthetist, the roentgenologist. Only the skill of the experienced and able men who have spent years of their time and much of their money to gain this position, with which they may earn a living, to educate their families, and to provide for their retiring years, operate their institutions yet the hospital uses these men in their experience and skill, gives them a certain amount of money and from their work collects an amount with which they write off the losses in other portions of the hospital. No corporation has any right, whether a hospital or anything else, to use the services of a physician, the skill and ability, the brains of a man in a profession, to make a profit thereby to write off losses in other branches of its activities.

We should maintain the same principles which are stated in the first paragraph of the first page of your *Principles and Ethics*, viz., the advance of the science of medicine and the protection of the public health.

We should preserve medicine as a profession, to licensed practitioners of medicine, and we should make it possible for each physician to compete on a professional merit basis, and not a highly commercial basis. These things we ought to keep in mind. Medical economics is not a question that has come as a fleeting cloud to shut out the light of a better practice, it is not a thing which will disappear rapidly or quietly. Medical economics will require our attention for many years.

It is necessary for us at the present moment to give particular attention to the inferences and implications of doing work for which we are paid by the government, whether city, state, or federal. The pattern upon which we agree to work and the principles which we support are going to be important a few years from now, and let us not adopt any principles, let us not support or endorse any policies that in a few years hence are likely to lead us into trouble, which will be difficult to overcome.

The questions of state medicine and of health insurance are not to be treated lightly or passed off. Already 2 or 3 states have come very close to the adoption of health insurance laws. Some 14 or 15 have had health insurance laws proposed, introduced. The cost of health insurance will probably be a very decidedly deterrent factor against the passage of health insurance for some time, but it is the medical profession which must have an interest in all these things medical, regardless of whether it be a board of a hospital, the community chest, the administration of a state hospital, or what not, whatever the interest may be, if it has in it a medical interest, or inference, there should be on the board of control, a physician, or several physicians. Anything which has to do with medicine can be given a medical interpretation, or a medical decision much better by a man, who by education, training, experience, and license is able to speak with authority. The medical profession of this country has no desire or intention to obstruct any plan to give the so-called low income class good medical care at prices they can afford to pay, but the medical profession does object to that kind of dic-

tation and management which robs the profession of its individuality, of its initiative, of its ability to act as a profession, and to do what it has done for thousands of years, take an active humanitarian interest in the welfare of the people.

Francis A. Faught, chairman of the Commission on Medical Economics of the Philadelphia County Medical Society, gave a detailed outline of the set-up of the present activities of this commission together with the objectives projected and the accomplishments now verging on completion. These will appear in full in *The Weekly Roster*.

Dr. Faught said in part: The Commission on Medical Economics is determined to carry to a logical conclusion, not only the work already begun, but also that which has been outlined in our Information Bulletin No. 2. Reward or financial gain should be a subordinate consideration. Any other attitude would subject us to just criticism; but we should not lose sight of the fact that we have devoted many years, and expended large sums of money in order to become competent physicians. To maintain the proper position in the social scale and be free from the burdens and cares of poverty, the physician, if he shall survive the present economic upheaval, must give due consideration to those extrinsic factors which are contributing to his economic instability.

We are not limited to the agenda outlined in *Principles and Ethics of Medical Practice*, but are ready to consider such other matters which, in the opinion of our board of directors, may serve to protect our right to practice individualistic medicine, against both obvious and obscure forces that may seek to further undermine our already threatened economic independence. There is no valid reason why we should permit outside influences to increase this already heavy burden. That this burden is already greater than many can carry, is shown by the number of our confrères who have been forced to accept some form of emergency relief.

There is no question that institutions, including hospitals, philanthropic agencies and socialistic experimenters, and other types of basically altruistic endeavors have been only too willing to urge us to continue to contribute an ever increasing amount of free service. It cannot be denied that our indifference to our material welfare has resulted in much exploitation, as there are many instances in which the physician, in the performance of certain of his professional activities, has placed himself in direct and unfair competition with his fellow practitioners, by accepting unfair and unethical contracts, in which the institutions exploiting him frequently derive financial benefit.

Such exploitations must cease, and this be accomplished by a unified medical fraternity. There is no possible argument to support the belief that exists in some quarters that the physician is in duty bound to render any free service, which shall relieve the community of its responsibility. If a physician gives professional services to any hospital or other organization, for which he is not properly compensated, he is shouldering a burden which is not his, but one which should be recognized as a community responsibility. Increasing demands for free service together with illegitimate encroachments upon the field or private practice have so multiplied that today his income is barely commensurate with his basic economic needs. All this must be changed, since the inevitable result of continued and increasing financial worry, caused by a steadily decreasing income, must seriously affect his efficiency, since none can devote their undivided interest and

energy to the practice of an exacting profession, if worried over money matters.

We thoroughly agree with President Roosevelt that changing conditions must be met by changes in policy and methods, and that we can no longer afford to live in the past, while hoping for a return of conditions that formerly existed. We must institute and control the changes in medical economics. Dr. Elliott has just said, "If the physician will not become an economist, in his own domain, then he seems destined to yield his knowledge and skill to be the object of commercial and communal experiment." We must discard the now obsolete and false premise that it is unbecoming or beneath the dignity of our noble profession, to take thought concerning the monetary aspect of medical practice; or we may soon find ourselves a paid employee of the state, working for a mere stipend, hindered and restricted in every endeavor, and from which it will be impossible to extricate ourselves.

In the interest of the health of the public as well as of our own economic stability, we do not want federal or state subsidy. If reforms are necessary, they must come from within. No code regulating the practice of medicine can either be adopted or enforced, and no federal fiat can boost our income, and no one but we ourselves can retrieve our fortunes. That this must be done is obvious. The immediate solution of this problem lies in two directions: (1) The adjustment of our fees when necessary to meet the decreased income of our clients; so that we shall at once preserve to them their self-respect, by keeping them from going upon relief, and by continuing to maintain the patient-physician relation, prevent them from developing the dispensary habit, and so losing a private patient; and (2) by retrieving legitimate sources of income, lost through the encroachments referred to. This can be accomplished only by full coöperation and teamwork.

Every physician should be sufficiently interested in his present economic situation, and in the future of medicine, to take the trouble to acquaint himself, not only with the activities of his society in his behalf, but also to learn the reasons why, and for, these activities, so that he may not unwittingly obstruct progress, but rather lend intelligent and active support to our constructive and helpful activities.

The knowledge of The Philadelphia County Society program is almost universal.

We are told on good authority that the medical profession in England is in the hands of the money changers, and that upon entering practice, many have been forced to resort to loans for equipment and sustenance, with the result that their income has become mortgaged for years ahead, and upon which they are forced to pay exorbitant rates of interest.

One of the aims of the Commission on Medical Economics, in coöperation with like committees throughout the United States is so to inform those who still remain obstinately opposed to our efforts, by means of a continuous and widespread propaganda of enlightenment and information and crystallization of opinion, based upon all reliable sources of information, that they will no longer offer either passive or active resistance.

On the other hand, we shall continue and enlarge our activities, and solicit the support and assistance not only of our own members, but also of those institutions and agencies, which our professional work touches in its many ramifications; in the end to better medical service, and to lessen total cost to the individual patient.

It is difficult to understand why lay boards of directors of our hospitals who should occupy themselves

solely with the business management of these institutions, will continue to obstruct, restrict, and interfere with the activities of competent staff groups, who so willingly and freely contribute to the efficiency of their institutions; without doctors the hospital would be nothing more than a pile of brick and mortar, obviously of no value to the community. We must continue our program until all those trustees who still hold to the belief that they should continue not only to control the activities and policies of the staff, but by putting them upon a full time salary basis, place them in direct and unfair competition with their fellow practitioners in private practice shall have been returned to their proper place in hospital management. They must also be prevented from participating in forms of group hospital insurance plans. This latter evil has been successfully combated in Philadelphia.

The Commission seeks to protect the majority and to see that its rights are not usurped by a privileged (save the mark) minority who are seeking to socialize medicine. Its individual practitioners must be assured of incomes commensurate with the responsibility which they have assumed and be free from dictation and restrictions from outside agencies. In no other way can the desirable patient-to-doctor relation be maintained. The Commission on Medical Economics has no intention either of voluntarily discontinuing its activities or being forced to disband through pressure brought by sinister forces.

Contract practice is a widespread evil, not confined to hospitals nor to the humbler members of our Society, but reaches into high places. Many of our own members who enjoy great prestige are engaged in it. Contract practice in itself is not an evil, but it becomes so when the contract entered into by a member is such that he is exploited by the other party to the contract, or if in the performance of his contractual duties he enters into unfair competition, either with himself or with other physicians.

The subcommittee on contract practice is now actively engaged in collecting information for the purpose of formulating basic criteria with which to determine the ethicalness of individual contracts, so that contracts found to infringe on our code of ethics may be reported to the Medical Court, which has been set up by our Board of Directors, clothed with the power of investigation, and through which any member found to be practicing under an unethical or unfair contract, may be referred to the Board of Censors of our Society for action, censure or even expulsion.

The Section on Workmen's Compensation will continue to endeavor to secure greater coöperation from the insurance carriers and will carry our campaign to the next Legislature, in order that the compensation laws as written and administered in Pennsylvania, shall be modified to remove the at present unfair restrictions relating to the amount of compensation paid and the duration of treatment that is compensable, so as to bring the State Law into conformity with compensation laws now existing in the majority of States.

The Section on Coördination of Medical Services will continue to study intensively the various aspects of dispensary abuse together with such inefficient medical services in dispensaries as is known to exist; this section will have the able support and coöperation of the section on dispensary abuse.

The Section on Hospitalization Abuses is now actively engaged in seeking some means of abating the unjust requirements of certain hospitals that have endowed beds in private rooms, carrying with them free medical and surgical service to patients occupying them and

who are fully able to pay. Some method should be discovered whereby every private patient occupying and paying directly or indirectly for a private or semi-private accommodation, shall be required to pay to the attending surgeon or physician, fair compensation for his services.

The Section on Counter Prescribing and Drug Dispensing, through the efforts of this committee, has prepared an information card which is now ready for distribution to our members. This card contains a list of trade-named proprietaries, and their U. S. P. and N. F. equivalents, which emphasizes the relative high cost of each trade-named product, as compared with the other. On this card also appears a few of the more widely advertised (to the laity) preparations, so-called tonics, mouth washes, *etc.*, with their official equivalents. The purpose of this is first, to combat over-the-counter prescribing, and purchase of remedies by the laity, an ever increasing evil, the result of direct advertising to the laity, by large pharmaceutical concerns. The use of official preparations should materially reduce the cost of prescriptions, which is frequently unnecessarily high, because of the thoughtless prescribing of trade-named remedies, though there is an official equivalent of relative low price.

As the result of the introduction of the Federal Emergency Medical Relief, the importance of reasonably priced prescriptions has been emphasized. This committee, therefore, is now engaged in preparing a series of specimen prescriptions approximating 300 in number, as a guide to ethical, efficient, and low priced prescribing. These will be distributed by the neighborhood druggists, to every physician in their locality. This Committee will also prepare a series of notes, which will appear in the *Roster*, whose object will be to expose the exaggerated claims made for many medical proprietaries and nostrums which are being extensively advertised through the press, in monthly and weekly magazines, and over the radio.

The Section on Department of Health Coöperation is in close and cordial relations with the Department of Health of Philadelphia. Every effort is now being made to develop the active participating interest of available members of our Society, who in the course of their daily practice may be expected to administer immunization against diphtheria. A letter of inquiry will shortly go out to the selected list asking them to signify their willingness to coöperate. The answer should be immediate, and the response 100 per cent. This work is being done under the assurance of the City Department of Health that if we can show that our doctors are equipped and ready to take over this work, then the department will cease to encroach further upon the doctors' income, through additional wholesale immunization campaigns. It this effort should fail, the failure must be laid at the door of our own members, not to the Department of Health. This source of lost income can be returned to our members, if they are willing and ready to receive it.

The Section on Lay Coöperation and Education, will shortly begin to issue bulletins to the daily press; in order to acquaint the public with our many activities in their behalf. We believe that much of the misunderstanding that exists regarding our motives is due to lack of information, and that a carefully prepared series of releases will do much to obtain the undivided support of our citizens, which is equally necessary to us and to them.

Concerning the encroachment of lay workers on the professional field, with consequent loss of income to the medical profession, this Section, has developed a very

practical plan, which will eliminate at least one serious encroachment. The administration of anesthesia by others than medically trained men and women is probably illegal in Pennsylvania; and at present, is a widespread evil in Philadelphia. We intend to show our members and hospital managements the obvious advantages both to the patient and the surgeon of an anesthesia department, headed by a competent physician anesthetist, and manned by physicians. Our plan of procedure will be to contact our many hospital clinical associations, and other medical organizations meeting in Philadelphia, in order to present short informative talks upon this subject.

Another part of our educational program devolves upon the Section on medical representation on hospital boards. We believe that we shall eventually be able to show that the medical profession has an inherent right to be represented not only upon every hospital board, but also upon every board of managers or trustees of any agency having a medical aspect.

A plea was made to endeavor to enroll every ethical practitioner in Philadelphia who is not now a member of this Society.

WARREN

Dec. 18, 1933

The meeting held Dec. 18, was devoted to discussing the details of the Relief Program. Twenty-five members were in attendance. Considerable dissatisfaction was expressed about the obstetric feature. It was felt that the whole measure was drawn without consideration of the rural physician. The problem of mileage and drugs made the country physician's recompense so small in comparison to the town doctor that it seemed very unfair.

The physicians generally agreed to go along hoping that better times may soon come and make the whole program unnecessary.

Secretary Eaton gave a full report of the recent Secretaries' Conference. He suggested some plan of co-operative advertising as was discussed at the meeting. The uniform by-laws' resolution was left to a committee to report later.

A resolution was unanimously adopted that Warren County Medical Society go on record as opposing the annual registration fee as being an unnecessary tax and being of no benefit whatever and calling upon our State officers to demand its repeal.

George T. Pryor attended the meeting, having recovered from a severe illness of several weeks' duration.

Nominations for officers for the coming year were made as follows: President, Alden B. MacDonald; first vice president, Edwin S. Africa; second vice president, Francis J. Krugh; secretary and treasurer, Hamblen C. Eaton.

Franklin G. Haines, Edwin G. Hamilton, Ralph Knapp, and Irving G. Hyer were hosts for the dinner which followed.

MICHAEL V. BALL, *Reporter*.

WASHINGTON

Jan. 10, 1934

The annual meeting of the Washington County Medical Society was held in the Washington Hospital, Jan. 10. Dinner was served. William J. L. McCullough, the newly elected president, was installed into office. Leroy W. Hoon, of Monongahela, a short story writer, read a paper on "Ten Commonly Mismanaged Conditions." This paper is a delightful satire on certain medical problems.

SAMUEL A. RUBEN, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

NOTES

Queens County Medical Society has formed an auxiliary: the *first* auxiliary to a medical society in New York State. Let the good work go on!

Mrs. James Blake, national president, advocates the slogan: "Undertake less; accomplish more."

In the *Journal of the Indiana State Medical Association*, we note the president, Dr. J. H. Weinstein, quotes our lamented Mrs. Walter J. Freeman as interpreting preventive medicine: "That which builds a wall at the top of a precipice instead of placing an ambulance at the bottom."

COUNTY AUXILIARY REPORTS

Allegheny.—The first auxiliary meeting of 1934 was held on Jan. 23. Dr. Thomas S. Arbuthnot was the speaker and illustrated his address with motion pictures.

Auxiliary members are requested to send their dues to Mrs. Alanson F. B. Morris, treasurer. It is to be the endeavor of the auxiliary to make this a record year for old and new members.

Berks.—The auxiliary gave its first Christmas party on Dec. 11 in Medical Hall. Tableaux were presented; the Junior Division Chorus, bearing tall candles, slowly entered, carolling the old familiar Christmas tunes. Readings and solos were presented. Tea was served.

At the open meeting on Jan. 8, representatives of the various clubs for women throughout the surrounding district were guests of the auxiliary. The theme was Public Health Education. The speakers of the afternoon were Drs. Louis J. Livingood and Thomas Butterworth.

Bucks.—The auxiliary closed a successful term. During this administration the "Corinne Keen Freeman Memorial Fund" was created, the money being used to purchase *Hygeia* which was placed in the public schools of Bucks County. Contributions were also made to the Medical Benevolence Fund.

Reports were given by delegates to the State Convention. Mrs. Wilmer Krusen was the guest and gave some of the "highlights" of the Convention.

Election of officers resulted as follows: President, Mrs. Herbert T. Crough, Doylestown; vice president, Mrs. John A. Weierbach, Quakertown; secretary-treasurer, Mrs. Herman C. Grim, Trumbauersville.

The gavel was presented to Mrs. Crough who assumed charge of meeting, urging the work be directed toward the Medical Benevolence Fund, all money in the treasury to be known as the "Corinne Keen Freeman Memorial Fund" to be allocated according to the desire of the auxiliary.

The members joined the Bucks County Medical So-

ciety in a Testimonial Dinner to Dr. Anthony F. Myers, who has served the Society as secretary and treasurer for 38 consecutive years. Dr. Myers was presented with a bouquet as a tribute from the auxiliary. This function was also the occasion of the eighty-fifth anniversary of the Bucks County Medical Society and the second annual celebration of the Pennsylvania State Health Day.

Chester.—The auxiliary in its meeting held at the Coach and Four Inn, Coatesville, deviated from its usual health interest and had a talk on Labrador by Dr. William A. Limberger, who spent some time there in a medical capacity.

Luncheon was served previous to the program and followed by routine business. The incoming president, Mrs. U. Grant Gifford, of Kennett Square, was presented. The auxiliary presented the retiring president a bouquet and expressed the delight of the group in having Mrs. Farrell chosen for a State appointment. Mrs. Gifford appointed the following chairmen for the ensuing year: *Hygeia*, Mrs. William Evans; legislative, Mrs. John A. Farrell; membership, Mrs. Robert C. Hughes; periodic health examination, Mrs. J. Oscar Dicks; public health, Mrs. Howard Mellor; publicity, Mrs. Howard B. Davis; ways and means, Mrs. Joseph Scattergood, Jr.; program, Mrs. Walter Webb, Mrs. Joseph Scattergood, Sr., Mrs. William A. Limberger. Plans were made to place *Hygeia* in schools in which it was felt to be greatly needed and appreciated. The principal charity of this group is the Medical Benevolence Fund, \$85 were contributed during the year.

Dauphin.—On Jan. 9, the auxiliary held its regular executive committee meeting at the Academy of Medicine; and on Tuesday, Jan. 16, the Annual Meeting and Luncheon was held at the Penn-Harris Hotel. The guest speaker was State President Mrs. Edward Lyon. Mrs. David I. Miller gave the Annual Address of the President and the various committee chairmen gave a summary of the year's achievements in their own departments.

It was the purpose of the January meeting to review the work of the past year. The Book of Archives was finished up to date and was presented for inspection by the members.

Delaware.—On Dec. 14 the members met in the Chester Hospital and were entertained by Drs. Walter E. Egbert and Ezra A. Whitney who presented motion pictures of trips to the West Coast and the World's Fair in Chicago.

Mrs. Adrian V. B. Orr presided at a short business meeting which followed. During the Christmas season baskets for worthy families were prepared, a family being chosen from each of the districts represented in the auxiliary.

Mrs. George L. Armitage, of Swarthmore, entertained at luncheon and bridge on Jan. 5 in order to raise money for the Medical Benevolence Fund. The success of her first effort was watched with keen interest, as it was the first of a group of similar affairs having a common financial purpose.

Erie.—The meeting held on Jan. 8, was at the home of Mrs. Augustus H. Roth. Plans for the coming year were arranged and after the business meeting the members sewed for the Florence Crittenton Home, after which tea was served.

Fayette.—We have been fortunate in securing speakers who have brought messages to inspire us for more health work. Fayette County Auxiliary was one of the first to organize.

A prominent physician of Pennsylvania said: "The Woman's Auxiliary is a step in the right direction for the health of the State and it must never fail the doctors." We have attempted to stress, in the recent notices for the JOURNAL, the vital importance of health and the help we can give, but when we hear an encouraging word like this doctor's, we have the urge to do more and more. Educational health work is our aim, and we could not go amiss in taking from the National Auxiliary at least one of its slogans: "Know your Auxiliary."

Lawrence.—The auxiliary met, Jan. 11, at 2:30 p. m., in the home of Mrs. Louis W. Grossman. At the business session, presided over by President Mrs. James M. Blackwood, Mesdames Jesse R. Cooper, John Foster, and C. Fenwick McDowell were elected to the board of directors.

Following the transaction of business, Miss Beulah Norris spoke on the welfare work being done in Lawrence County. Tea was served following the address.

There will be a meeting in April with Mrs. Paris A. Shoaff.

Lycoming.—At the December meeting, held in the Woman's Club, following the usual luncheon, President Mrs. William Eugene Delaney, Jr., presiding, it was decided that two bonds for the Tuberculosis Fund be purchased. The president appointed, as a nominating committee to report at the January meeting, the following: Mesdames Edward Lyon, Walter S. Brenholtz, John P. Harley, Herbert P. Haskin, and J. Louis Mansuy. A committee was appointed to call on the wives of the new members of the medical society from Union County, to invite them to become members of the auxiliary. On Dec. 13, Mesdames Lyon and Brenholtz drove to Lewisburg. At the home of Dr. and Mrs. John W. Arbogast they met several women who are eligible for membership in Lycoming County Medical Auxiliary. After the aims of the auxiliary were presented, several expressed themselves as desirous of becoming members. Tea was served following the meeting.

On Dec. 27 the auxiliary gave a dance at the Lycoming Hotel to the Lycoming County Medical Society. It was attended by several hundred persons of all ages and by a large representation of our physicians and their wives. Proceeds of the dance will be applied to the initial payment on the deep-therapy machine the Williamsport Hospital hopes to purchase.

Luzerne.—An important and successful undertaking was sponsored by the Luzerne County Auxiliary when they presented, Dec. 4, a Mental Health Institute with morning and afternoon sessions held in the Medical Society Building and Hotel Mallow-Sterling, Wilkes-Barre.

Mrs. Charles Long was general chairman for this meeting.

The program, presented by local and out of town lecturers, dealt with psychologic problems of children, adolescents, adults, and aged persons. The institute was opened by Mrs. Charles H. Miner, president of the aux-

iliary. Mrs. Robert S. Woehrle was luncheon chairman. Dr. Frank Reiter, chief of the Department of Special Education, Harrisburg, was discussion leader. The speakers were Dr. Jessie Janjigian, on "Mental Scars from Physical Sickness"; Dr. J. M. Horner, secretary of the Wilkes-Barre Boys' Y. M. C. A., "The Low Down of the High School Age"; Dr. William Sandy, chief of the Department of Mental Health, Harrisburg, "Muddling through Middle Age"; Miss L. Alma Lupo, director of Social Service at the Danville State Hospital, "Salvaging Old Age for Usefulness"; Mrs. Alfred Schroeder read Clifford Beers' *A Mind That Found Itself* after which Dr. Joseph Miller, psychologist and director of guidance in Wilkes-Barre schools discussed "Differences Among Children." Dr. Phillip L. Harriman, "How Parents Mold the Child's Behavior," and Mrs. K. Brownell Oettinger, psychologist of the Visiting Nurse Association, "The Little Child, Made or Marred."

With the day thus devoted to mental health during every period of life, the 400 or more in attendance went home in the belief that the subject had been presented in a masterly way and that the auxiliary had demonstrated its value to the community in giving so entertainingly a wealth of information on this vital topic.

Montgomery.—A regular meeting was held at the Nurses' Home. About 20 members were present.

Report of the recent holiday dance was received.

Mrs. J. Newton Hunsberger, president, appointed a nominating committee, consisting of Mesdames Ammon G. Kershner, chairman, John C. Simpson, and Howard W. Hassell to choose nominees to be elected at annual meeting in February.

Miss Carrie M. Landis, secretary, Council of Social Welfare of Montgomery County, gave an account of the work of the Welfare and thanked the auxiliary members who made garments during the past year. She requested a further donation of garments for distribution, and the following committee was appointed to the request: Mesdames Wallace W. Dill, chairman, Joseph M. Ellenberger, George D. Mulligan, and Reinoehl Knipe.

Mrs. Herbert B. Shearer, president-elect, gave a review of Nellie Revell's *Right Off the Chest*.

The annual Birthday Party will be held in conjunction with the regular meeting, Feb. 22.

Following the meeting, tea was served.

Northampton.—The regular monthly meeting was held, Jan. 10, at Hotel Bethlehem. Luncheon was served at one o'clock followed by the business meeting presided over by the new president, Mrs. Arthur S. Fox, Easton.

The treasurer's yearly report was given showing a balance of \$27.78 in the checking account and \$445.82 in the savings account.

New committees were appointed by the president: Flower, Mrs. William A. Finady and Mrs. Clarence D. Hummel; publicity, Mrs. Jaigle and Mrs. J. E. Brown; membership, Mrs. Reuben Raub and Mrs. Francis J. Conahan; roll call monthly, Mrs. Anthony J. Sparta and Mrs. Raub, Easton, Mrs. Edgar S. Beidleman and Mrs. Eugene Ackerman, Bethlehem.

At the conclusion of the business session, bridge was played and prizes awarded.

Wvoming.—The auxiliary meets every 3 months at the Elm Tree Shoppe, Tunkhannock, for luncheon after which they have a business meeting and program. In July they had a picnic meeting in conjunction with the medical society. Officers were elected in October. Mrs.

William W. Lazarus is now president. The auxiliary helps with the Emergency Child Health Committee, the Cancer Research Fund, and Hospital Auxiliary. It also has its quota of subscriptions to *Hygeia*.

Though there are few members they are all interested and quick to respond when there is work to be done.

The members are hoping to raise a fund to subscribe to the Medical Memorial.

Medical News

Births

TO DR. AND MRS. ARTHUR G. DAVIS, Erie, a daughter, Dec. 13, 1933.

TO DR. AND MRS. HENRY E. MILLER, Belleville, a son, in December, 1933.

Engagement

MISS VIRGINIA LOUISE THORNTON, daughter of Dr. Mary Bickings Thornton, and Mr. Gerald Wilt, all of Philadelphia.

Marriage

MISS GRACE MILLER, Spring City, to Dr. Bernard I. Comroe, instructor in the Medical School of the University of Pennsylvania, Jan. 1.

Deaths

MRS. MAUDE NORTH, wife of Dr. Harry U. North, Philadelphia; Dec. 23, 1933.

MRS. MARY M. KELLY, mother of Dr. Samuel Kelly, Philadelphia; Dec. 30, 1933.

WILLIAM W. ESHBACH, Allentown; Jefferson Medical College, 1892; aged 62; Jan. 8.

MRS. MARGUARITE DE RENYL, wife of Dr. George S. de Reryl, Philadelphia; Jan. 6.

MRS. MARY B. RATCLIFFE, wife of Dr. Griffith J. Ratcliffe, Philadelphia; Dec. 28, 1933.

RAYMOND K. DERR, Pennsburg; Jefferson Medical College, 1927; aged 37; Dec. 25, 1933.

J. FRANCIS DUNLAP, Manheim; Jefferson Medical College, 1875; aged 81; Dec. 24, 1933.

EMORY H. MORROW, Altoona; Cleveland University of Medicine and Surgery, 1883; aged 75; Dec. 19, 1933.

ELBIN J. JOHNSON, Claysville; University of Pittsburgh School of Medicine, 1895; aged 66; Dec. 31, 1933.

LOUIS EUGENE BARLOW, Philadelphia; Jefferson Medical College, 1896; aged 68; Dec. 8, 1933, heart disease.

JAMES K. McSHANE, Philadelphia; University of Pennsylvania School of Medicine, 1923; aged 35; recently.

JOSEPH D. McCARTER, Beaver Falls; Jefferson Medical College, 1883; aged 77; in December, 1933, cerebral hemorrhage.

ALBERT ANDREW GUFFEY, McKeesport; University of Pittsburgh School of Medicine, 1897; member of the school board; aged 65; Oct. 1, diabetes mellitus.

MRS. ELIZA S. BANES, widow of Dr. S. Thompson Banes, Philadelphia; was known for her philanthropies; aged 70; Dec. 29, 1933. Surviving is a daughter.

WENTWORTH DARCY VEDDER, Pottstown; College of Physicians and Surgeons, Baltimore, 1880; aged 75; Dec. 22, 1933, of a three days' illness attributed to erysipelas.

AUGUSTUS H. KELLER, Philadelphia; Jefferson Medical College, 1896; aged 66; Dec. 25, 1933, pneumonia. Not a member of his county medical society. He is survived by his widow and a son.

JOHN WORTHINGTON JEFFRIES, Lansdowne; University of Pennsylvania School of Medicine, 1928; aged 30; Jan. 21, from a brain abscess. He is survived by his widow, a son, and his parents.

CHARLES L. MCKINNON, McKees Rocks; University of Pittsburgh School of Medicine, 1899; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 64; Dec. 31, 1933.

HERMAN JEFFERY LICHT, Philadelphia; University of Pennsylvania School of Medicine, 1930; aged 25; formerly an intern at the hospital of the University of Pennsylvania, in which he died, Sept. 12, 1933, of mastoiditis and pneumococcic meningitis.

CHRISTOPHER SUMNER WITHERSTINE, Philadelphia; College of Physicians and Surgeons, New York City, 1878; aged 79; Dec. 25, 1933, at the Presbyterian Home for Aged Couples and Aged Men. At one time was lecturer on therapeutics at Temple College. He was not a member of his county medical society.

GEORGE SMITH CONDIT, Warren; University of Maryland School of Medicine, 1910; surgeon and roentgenologist; served overseas during the World War in the U. S. A. Medical Corps; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 46; Dec. 10, 1933, after a day's illness.

JOSEPH HART, Dudley; Jefferson Medical College, 1889; aged 72; recently of apoplexy. Dr. Hart began practice at Baltimore and in 1917 moved to Dudley. He was a member of the Select Council of Baltimore for a number of years. Not a member of his county medical society. He is survived by his widow.

WILLIAM JOHN WILKINSON, Sellersville; Philadelphia College of Pharmacy and Science, and Jefferson Medical College, 1891; former chief surgeon at Grandview Hospital, Sellersville; member of his county and State medical societies, and the A. M. A., and the North Penn Clinical Association; aged 67; Jan. 2. His widow survives.

HENRY F. PAGE, Philadelphia; University of Pennsylvania School of Medicine, 1893; medical superintendent for many years at Lankenau Hospital; associate professor of medicine at the Graduate School of the University of Pennsylvania; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 63; Dec. 21, 1933. He is survived by his widow, 2 daughters, and a son.

C. W. MELLOR, Narberth; Medical School of St. Andrews, Scotland; Jan. 8. Dr. Mellor was a retired minister, and had never practiced medicine. He is said to have been the oldest man to have received a graduate degree from the University of Chicago, where at age 70, he enrolled for a course in electrical therapy, receiving a degree 2 years later. The following 4 years he practiced physical therapy in Philadelphia and Chicago.

WILLIAM HENRY HANCKER, Farnhurst, Del. (formerly of Philadelphia); Jefferson Medical College, 1873; retired superintendent of the Delaware State Hospital for the Insane at Farnhurst; in 1873 he became assistant superintendent of the department for the mentally ill of the Philadelphia General Hospital, and two years later was appointed assistant superintendent of the Northern Hospital for Insane at Winnebago, Wis. In 1890 he was named assistant superintendent of Delaware State Hospital, superintendent in 1892, and retired in 1926; aged 83; Dec. 30, 1933.

THOMAS F. DUNN, Philadelphia; University of Pennsylvania School of Medicine, 1902; aged 56; Dec. 24, 1933, at the Lankenau Hospital as a result of injuries received from a recent fall. He was a graduate of LaSalle College, and was on the medical staff of the

Philadelphia General Hospital and the American Stomach Hospital. He was not a member of his county medical society. He is survived by 3 brothers, 2 of whom are physicians, Paul P. Dunn, Mahanoy City, Pa., and Joseph Francis Dunn, Chester, Pa., physician to the coroner of Delaware County; and 2 sisters.

PAUL RICHARD HESS, Reading; Jefferson Medical College, 1929; aged 33; killed by an assassin, Jan. 8. Dr. Hess was graduated from Mercersburg Academy in 1920; from Dickinson College, 1924; and after teaching Science for one year at Conemaugh High School, he entered Jefferson Medical College. During the time he was at Jefferson he was in the Reserve Officers Training Corps, upon graduation receiving his commission in the Medical Reserve Corps of the United States Army. He served his internship at St. Joseph's Hospital, Reading. He was a member of his county and State societies. On the evening of Jan. 8, while in front of his office as he was leaving his automobile, Dr. Hess was shot by a woman patient during a fit of temporary insanity. Five bullets were fired from a revolver, only one taking effect, and that one puncturing the vena cava, death being due to internal hemorrhage. A widow, parents, and a sister survive.

LEON F. LUBURG, Philadelphia; University of Pennsylvania School of Medicine, 1899; aged 58; Jan. 18. Dr. Luburg was born in Mahanoy City and received his early education in Philadelphia. He served as instructor in obstetrics at the University of Pennsylvania Medical School. At various times he was on the medical staff of the Philadelphia General Hospital, Howard Hospital, American Stomach Hospital, and the Methodist Hospital. He died in the latter institution after a few days' illness. He was commissioned a first lieutenant in the Medical Corps of the Pennsylvania National Guard in 1909, being advanced to major in 1916, and appointed regimental surgeon. He served on the Mexican Border in 1916 and during the World War was assigned on a local draft board. Dr. Luburg was widely known among city officials and police and firemen, having been associated in the medical department of the Police and Firemen Departments for a number of years. In 1930 he was commissioned an honorary deputy chief of the Philadelphia Bureau of Fire, and was decorated with a gold badge in recognition of 29 years' faithful service. He was a member of his county and State medical societies and a Fellow of the A. M. A., and Physicians' Motor Club, of Philadelphia. He is survived by his widow.

Miscellaneous

DR. DELORME T. FORDYCE, Conshohocken, has been appointed to a 5-year term of service on the Board of Health of that town.

DR. NATHAN W. RUBIN, Collegeville, has returned from taking a postgraduate course in gynecology and endocrinology in Vienna.

AN ANNUAL DOCTORS' SERVICE is conducted by the First Presbyterian Church, Pittsburgh. The latest one being held Jan. 14.

DR. JAMES G. KOSHLAND, Lewistown, who has been confined to the Lewistown Hospital, is now able to take care of some of his office practice.

DR. FREDERICK A. RUPP, Lewistown, who recently suffered a basilar hemorrhage, leaving a partial paralysis, is unable to resume his practice.

DR. J. NORMAN HENRY, director of Public Health, Philadelphia, was the speaker, Jan. 8, at the annual dinner of the Philadelphia Medical Examiners, held in the Sylvania Hotel.

CARL KLINGE was convicted in the Lancaster (Pa.) County court, Dec. 15, 1933, for illegal practice of medicine. Klinge was fined \$100, cost of prosecution, and put on probation.

DR. GEORGE W. MILLER, Norristown, sustained a fractured left hip and pelvis, when he was run down by an automobile in front of his home, Dec. 10, 1933. He is now convalescing.

THE PHILADELPHIA DEPARTMENT OF HEALTH states that with 95 cases of diphtheria and 12 deaths for 1933 is the lowest record for all time in the annals of the department.

DR. RANDLE C. ROSENBERGER, professor of bacteriology, at Jefferson Medical College, Philadelphia, reports that some one has stolen a valuable Stradivarius violin from his office in the college building.

DR. JOHN M. MUSTARD, Millersville, Lancaster County, was rendered ill by gas fumes on Jan. 13 when called to see a family, the members of whom were overcome by fumes from a furnace. A child aged 20 months was found dead.

DR. PIUS A. NOLL has declined reelection as secretary of the York County Medical Society. During his 10 years of official connection with that society he has always been a leader in local and in State activities.

IN CHRONICLING THE FACT that a Philadelphia judge was recently operated upon for removal of his tonsils, the reporter stated, "the judge went under the knife," etc. Evidently this reporter is not learned on the technique of tonsillectomy.

DR. M. B. COOPERMAN will be the speaker, Feb. 28, 8:30 p.m., at the sixth health talk given at the Mt. Sinai Hospital, 5th and Reed Sts., Philadelphia, on "Backache and Flatfeet." Dr. Bernard Mann will speak on "Cancer," March 28. These lectures are free to the public.

THE NEW EDITION OF *Registered Physicians in Pennsylvania and Registered Practitioners of Drugless Therapy, Physiotherapy, and Chiroprody* will be issued by the State Board of Medical Education and Licensure early in 1934.

All licensed physicians and practitioners should pay their registration fee of \$1.00 for 1934 at once in order that their names may be included in this important record.

DR. RAY P. MOYER has been appointed city health director of Pittsburgh by the newly elected mayor, Hon. William N. McNair. Dr. Moyer is a graduate of the University of Pittsburgh Medical School; has been a member of his county society and national medical societies for about 20 years, and specializes in clinical pathology.

DR. HOWARD K. PETRY, clinical director, Torrance State Hospital, has been appointed superintendent of the Harrisburg State Hospital, to succeed Dr. E. M. Green, who recently resigned after serving for 16 years. For several years Dr. Petry was on the staff at the Warren State Hospital before he became associated with the Torrance Hospital.

THE \$1000 PRIZE of the American Association for the Advancement of Science was awarded to Dr. Reuben L. Kahn, of the University of Michigan, for a discovery promising to extend manifold the possibilities of immunizing human beings against disease. Dr. Kahn is not an M.D., but a bacteriologist and famous in science for discovering the Kahn test for syphilis.

MR. CHARLES H. HERSCH, the new democratic coroner of Philadelphia, discontinued the services of Drs. Arthur P. Keegan and Richard D. Burke, and appointed Dr. Martin P. Crane (his personal physician) chief coroner's physician at a yearly salary of \$3500, and Dr. William S. Wadsworth second coroner's physician at an annual salary of \$3000. Dr. Charles A. Moriarty was appointed third coroner's physician.

AT THE MEETING of the Medical Club of Philadelphia, held Jan. 19, the following officers were elected: President, Charles A. E. Codman; first vice president, Edgar

S. Buyers (Norristown); second vice president, Henry B. Kobler; secretary, William S. Wray; treasurer, George A. Knowles; governor, I. P. Strittmatter; directors, Claude P. Brown, Paul B. Cassidy, Henry D. Jump, W. Burrill Odenatt, M. Fraser Percival.

THE MEDICAL JOURNAL that was formerly known as the *Medical Journal and Record*, on Jan. 3, appeared in a new suit of clothes under the new name of *Medical Record*. The front page appears in a different color each issue. The editor, Gregory Stragnell, states that it will be the endeavor to give the readers more than a new cover and a simplified name. We extend best wishes to the new thought of the *Medical Record*.

THE SOUTHEASTERN SURGICAL CONGRESS will hold its fifth annual assembly in Nashville, Tenn., March 5, 6, and 7, 1934. The Andrew Jackson Hotel will be hotel headquarters and the lectures and exhibits will be in the War Memorial Building. Drs. W. Wayne Babcock and Chevalier Jackson, both of Temple University, Philadelphia, will occupy places on the program. For information write Dr. B. T. Beasley, 1019 Doctors Bldg., Atlanta, Ga.

AT THE OSLER MEMORIAL MEETING of The Section on Medical History of the College of Physicians and Psychiatric Society, Philadelphia, Jan. 9, the following papers were read: "William Osler's Association with the Philadelphia General Hospital," Dr. Truman G. Schnabel; "Osler's Contributions to Medicine, Especially Heart Diseases, With Reference to His Canadian Period and Some Personal Reminiscences," Dr. Maude Abbott, of Montreal (by invitation).

AT THE ANNUAL MEETING of the Aid Association of the Philadelphia County Medical Society, Jan. 16, it was stated that for the first time in memory of any of its members last year found itself unable to meet all the requests that it had received for aid. The following officers were elected: Charles A. E. Codman, president; Lewis H. Adler, Jr., vice president; I. P. Strittmatter, treasurer; Francis Heed Adler, secretary. Myer Solis-Cohen, John G. Beardsley, and Francis Wharton Sinkler were elected directors.

IN 1932 AN ANONYMOUS donor presented the sum of \$10,000 to the City of St. Louis with the request that it should be divided into 10 annual prizes of \$1000 each, to be known as The St. Louis Award and to be voted by an impartial committee of selected citizens to the person each year, a resident of metropolitan St. Louis, who had contributed the most outstanding service to bring honor to the community. The award for 1933 was given to Dr. Max A. Goldstein, St. Louis. The medical profession is highly honored in having one of its members selected for such distinguished recognition. The honor was vested in Dr. Goldstein "in recognition of his achievements and research in dealing with problems of the deaf."

THE COLLEGE OF PHYSICIANS of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about \$300, will be made on July 14, 1934, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

An essay intended for competition may be upon any subject in medicine, but must be accompanied by a written assurance from the author that it has not appeared previously in print, either in whole or in part, in any form, and has not been presented elsewhere in competition for a prize. Any illustrations should be appropriate and correctly annotated with the text. Essays must be received by the secretary of the College on or before May 1, 1934.

The Alvarenga Prize for 1933 has been awarded to Drs. Harry Shay and J. Gershon Cohen, Philadelphia, for their essay entitled, "Experimental Studies in Gas-tric Physiology in Man."

BEGINNING WITH JANUARY, 1934, the Union Pacific System is placing in service the new Union Pacific train, built of aluminum alloy, which will be as strong as steel of the same dimensions but of only one-third the weight of steel. This new train is designed for high speed transportation, and is streamlined. The progress of this experiment of the Union Pacific Railroad System will be watched with interest by railroad executives. As contrasted with the wooden coach trains, it is thought that this will open a new safety era in transportation.

GEORGE S. BRENDLER, a graduate of Messmer High School, Milwaukee, Wis., was awarded the Henry L. Doherty Prize of \$500 for the best essay among 18,000 submitted by high school students throughout the country in the Fifth Annual Gorgas Essay Contest. The subject assigned the contestants was "The Problem of the Mosquito and Other Insect Life in Relation to Sanitation, Health, and Industry." In addition to \$500 in cash presented to him by President Roosevelt, Mr. Brendler received \$200 for traveling expenses to Washington to receive the award.

THE AMERICAN PUBLIC HEALTH ASSOCIATION announces that its Sixty-third Annual Meeting will be held in Pasadena, Calif., Sept. 3 to 6, 1934. The western branch of the American Public Health Association, with a membership of more than 1200 from 11 western states, will hold its fifth annual meeting at the same time. Dr. J. D. Dunshee, health officer of Pasadena, has been appointed chairman of the Local Committee on Arrangements. He will be assisted by Dr. John L. Pomeroy, president, and Dr. W. P. Shepard, secretary, of the western branch, and other prominent public health authorities on the west coast.

DR. ALEXANDER G. BROWN, JR., has resigned as editor of the *Virginia Medical Monthly*, the official publication of the Medical Society of Virginia, after 15 years of service. During the same period he also held the responsible position of chairman of the Program Committee of the State Society.

We extend best wishes to Dr. Wyndham B. Blanton who has been elected to fill the vacancy as editor. Dr. Blanton is well known and has already achieved distinction on the Committee on History of Medicine in Virginia, having published 3 volumes on their state medical history.

THE APPROVAL OF THE USE of blanket advertising by recognized physicians, passed at the meeting on Oct. 20, of the Cook County Medical Society, will doubtless cause much comment, to put it mildly, in the more conservative East. The Cook County Medical Society, with a membership of several hundred physicians, has recently broken away from the Chicago Medical Society.

Although the Medical Society of the County of New York permits members born and graduated abroad to insert in American newspapers published in their native languages brief notices giving name, specialty, address, and office hours, the society upholds a rule against paid advertising by its members. The same is true of the Medical Society of the State of New York, indicating that the attitude here in the East toward advertising by physicians is still extremely strong and firmly fixed, except in the case of a more or less radical minority in the profession, who will watch with keen interest the future results brought about by this latest step on the part of the Cook County Society.—*Editorial, Medical Journal and Record, Nov. 15, 1933.*

THE PAN AMERICAN MEDICAL ASSOCIATION will hold its Fifth Scientific Congress in the form of a 16-day cruise to Venezuela and other countries, sailing from New York on March 14, 1934. The scientific program will consist of 24 papers to be read in each medical section, 6 addresses daily for 4 days. Members of the medical profession in good standing, with their wives and families, may join this Congress. Any one interested may communicate with Dr. Joseph J. Eller, execu-

tive secretary, 745 Fifth Ave., New York City. Dr. P. Brooke Bland, Philadelphia, is president of the North American Section on Gynecology and Obstetrics. Dr. Thomas B. Holloway, Philadelphia, is vice president of the Section on Ophthalmology.

DR. ARTHUR E. DAVIS, Scranton, has been appointed Director of Public Health by Mayor Stanley J. Davis. Dr. Davis is a graduate of the Medico-Chirurgical College, 1911; served his internship at the Medico-Chirurgical Hospital and subsequently served an internship at the State Hospital, Scranton; began practice in Scranton, 1913; was appointed chief of the surgical dispensary at the State Hospital and visiting chief at the West Side Hospital, 1914, the latter position he still holds; for sometime he has been one of the medical chiefs at the Scranton State Hospital; on April 5, 1917, he was commissioned in the Medical Reserve Corps and was one of the first group of physicians to leave the Scranton area for active service in the World War; served as president of the Lackawanna County Medical Society during the year 1920.

The New York State Journal of Medicine as of Jan. 1, 1934, appears under a new editorial board and new management. The cover of the journal is now pale blue. The journal will be published semimonthly under the auspices of the Journal Management Committee, consisting of Drs. Arthur J. Bedell, Peter Irving, Charles Gordon Heyd, George W. Kosmak, and Frederic E. Sondern, with the business and editorial office at 33 West 42nd Street, New York City.

In the salutatory editorial the new management states they fully appreciate the task that has been entrusted to them by the State Medical Society, and it will be their sole aim to perform their duties in such a way as may best serve the interests of the members. The new editorial and business management accept the commission in high spirit. They appreciate the journal exists primarily and solely for its readers, the members of the society. They, therefore, make an appeal to the rank and file of the membership of the society to aid by their advice and friendly cooperation. We extend best wishes to the new editorial and business management for success in their undertaking.

THE ANNUAL PRIZE of \$50 offered by the Cancer Commission of The Medical Society of the State of Pennsylvania to the nurse resident in the State, who submits the best essay on "The Reduction of Cancer Mortality," has been awarded to Miss Bertha F. Lewis, Harrisburg, with honorable mention to Miss Edith Davis, Allentown, Miss Eva L. Calvert, Philadelphia, and Miss Mary A. Isenberg, State College. The selection was made by the State Board of Examiners for the Registration of Nurses.

This prize will again be awarded in 1934 and will be open to any registered nurse in the State. Essays must be submitted to the Cancer Commission of The Medical Society of the State of Pennsylvania, 609 Medical Arts Bldg., Scranton, Pa. Essays must be typewritten in duplicate and submitted not later than Dec. 1, 1934. The essays must not be over 2000 words. The only change in the rules this year will be that any nurse, resident in Pennsylvania, who graduates from a hospital in any state and who passes the usual Pennsylvania State Board examinations held in November, 1934, will be eligible to the competition.

THE FOLLOWING LIST of courses open to graduates of medicine are in course of preparation to be given under the auspices of the Allegheny County Medical Society in Pittsburgh during the months of March, April, and May, 1934. For the most part the sessions are held one week apart. A small registration fee is charged to meet expenses.

In view of the good transportation about Pittsburgh the directors of the Allegheny County Medical Society extend the privilege of registration to members in good standing of the adjoining county medical societies. Formal announcement of the courses together with registration blanks will be mailed to any member of the

State Medical Society who will send his or her name to the Graduate Education Committee, Allegheny County Medical Society, Jenkins Arcade, Pittsburgh, Pa.

Courses are as follows: "A Review of the Proved Practical Application of Chemistry to Medicine, W. S. McEllory, April; "Cardiovascular and Renal Diseases of Degenerative Type. Ward Walks," James D. Heard and associates, March and April; "Gross Pathology," H. H. Permar, March, April, and May; "Clinical Endocrinology," Susan R. Offutt, March and April; "Periodic Health Examination," Alexander H. Colwell, Rutherford T. Johnstone, Harry F. Zinsser, March; "Diagnosis and Treatment of the More Common Conditions about the Ear, Nose, and Throat Seen by the General Practitioner," Watson Marshall, March; "Elements of Neurology for the General Practitioner," Harold L. Mitchell, March and April.

AT THE MEETING of the Committee on Conservation of Vision of the Philadelphia County Medical Society, Jan. 15, in the County Medical Building, an outline of the activities of the local county society was discussed. Every effort is being made to coordinate these activities with those of the State Committee on Conservation of Vision. The outstanding topic discussed at this particular time was a restatement of facts in connection with ophthalmia neonatorum. The periodic variation in the incidence of this affection has not been satisfactorily explained. The figures for Philadelphia County, period from 1914 to 1932, failed to show any profound decrease in the incidence of this disease. The percentage of new cases admitted at the Pennsylvania Institution for the Instruction of the Blind likewise shows a periodic variation, but the average number stays about the same. In order to determine how much of this disease exists and the factors influencing its production and its ultimate bad effect of vision, it was approved that a subcommittee of 3 be appointed to investigate ophthalmia neonatorum in Philadelphia County in all particulars.

The value of literary publicity was freely discussed and especially the pamphlets issued by opticians and optometrists containing erroneous statements regarding certain members of the ophthalmic profession in the matter of mydriatics.

While the subject of the issuance of pamphlets from time to time by the Committee through the society was not particularly encouraged, the Committee was informed that whatever was desired in that regard would be furnished by the A. M. A. and the National Society for the Prevention of Blindness.

It was the sentiment of the Committee that the personality of the men speaking on a subject before local lay organizations was a much more valuable means of disseminating information on ophthalmology. W. C. Posey is chairman of the Committee, and Samuel Horton Brown is secretary.

Book Reviews

THE SURGICAL CLINICS OF NORTH AMERICA. Issued serially one number every other month. Vol. 13, No. 6. Index Number. (Pacific Coast Surgical Association Number—December, 1933) 284 pages with 97 illustrations. Per clinic year (February, 1933, to December, 1933). Paper, \$12; cloth, \$16 net. Philadelphia and London: W. B. Saunders Co., 1933.

Although opinions may differ as to what constitutes a report of a clinical case the reviewer believes that comment based on experience would enhance its value. This volume gives one an opportunity to make a comparison between a simple statement of facts and additional remarks of the physician reporting the case.

DISEASES OF THE CHEST AND THE PRINCIPLES OF PHYSICAL DIAGNOSIS. George William Norris, A.B., M.D., formerly professor of clinical medicine in the University of Pennsylvania; chief of medical service "A," Pennsylvania Hospital; and Henry R. M. Landis, A.B., M.D., Sc.D., professor

of clinical medicine in the University of Pennsylvania; director of clinical and sociological departments of the Henry Phipps Institute of the University of Pennsylvania. With a chapter on the transmission of sounds through the chest by Charles M. Montgomery, M.D., formerly physician to the Phipps Institute, Philadelphia; and a chapter on the electrocardiograph in heart disease by Edward B. Krumbhaar, Ph.D., M.D., professor of pathology, Univ. of Pennsylvania, School of Medicine. Fifth Edition, revised. 997 pages with 478 illustrations. Philadelphia and London: W. B. Saunders Co., 1933. Cloth, \$10 net.

This well-known and justly popular book consists of three distinct parts. The first is a monograph on physical diagnosis of diseases of the chest. Special chapters by Charles M. Montgomery on the transmission of sounds and Edward B. Krumbhaar on electrocardiography are included. The second part describes diseases of the bronchi, lungs, pleura, and diaphragm; a brief discussion of diagnostic bronchoscopy by Louis H. Clerf is a new feature. The third part deals with diseases of the pericardium, heart, and aorta. Treatment is not discussed. The present edition has been brought up to date by the addition of new relevant material.

The book reflects the careful work, sound clinical training, rich experience, and literary ability of the authors. The illustrations add greatly to the interest and value of the text. The book should be carefully studied by medical students. Practitioners would do well to familiarize themselves with its contents. The reviewer knows of no other single volume that so well orients the reader with respect to diseases of the chest.

THE DISEASES OF INFANTS AND CHILDREN.

J. P. Crozer Griffith, M.D., Ph.D., emeritus professor of pediatrics in the University of Pennsylvania; consulting physician to the Children's Hospital, and St. Christopher's Hospital for Children; consulting pediatricist to the Woman's, the Jewish and the Misericordia Hospitals, Philadelphia, and A. Graeme Mitchell, M.D., B. K. Rachford Professor of Pediatrics, College of Medicine, University of Cincinnati; medical director and chief of the staff of the Children's Hospital Research Foundation; director of pediatric and contagious services, Cincinnati General Hospital. 1155 pages with 281 illustrations. Philadelphia and London: W. B. Saunders Co., 1933. Cloth, \$10 net.

The 1933 edition of *The Diseases of Infants and Children* by Dr. J. P. Crozer Griffith and Dr. A. Graeme Mitchell is an outstanding pediatric textbook, and is to be recommended for teaching and reference purposes. In re-writing the book the authors have condensed the material so that it has been possible to publish it in one volume instead of the original two, thus making practicable a much wider circulation of the book because of the lesser cost for both physicians and medical students.

As in the previous editions this volume is very suitably arranged in two divisions. In the first, the vitally important subject of the *normal* child is discussed and his growth, development, hygiene, diet, and the earliest signs of *deviations* from the normal. The book does not make the mistake that many pediatric textbooks do, that of discussing the diseases of the newborn first, before any consideration of the normal child is given. The second and larger division deals with "Disease," presenting first diseases of the newborn, then the infectious diseases, nutritional and miscellaneous diseases, and finally, system diseases.

There will be a difference of opinion concerning minor points on the hygiene and diet of the child and also concerning certain aspects in the discussion of diseases. For instance, the urologist will urge more emphasis on radical urological treatment of pyelitis; others will plead for a different classification of the first infection type of tuberculosis. Difference of opinion along these lines, though justifiable, does not alter the fact that the authors have handled their subject admirably, especially

the normal child, and symptoms and treatment of diseases in children. The one defect of the book to be regretted is that in spite of the fact that much is now known about psychopathology, no attempt has been made to classify the functional nervous disorders of children on a pathologic basis nor to determine the underlying etiologic factor of the disorders. Therefore, the entire discussion of the behavior and emotional and nervous disorders of children is vague and confused, and the treatment recommended is superficial and applicable only to symptoms, and fails to cure the underlying cause.

The subject matter as a whole is fundamentally sound. The book should be studied by every medical student and practitioner working with children.

OBSTETRICS AND GYNECOLOGY (Volumes I, II, III, and Index). By 80 leading specialists. Edited by Arthur Hale Curtis, M.D., professor and head of the Department of Obstetrics and Gynecology, Northwestern University Medical School; chief of the Gynecologic Service, Passavant Memorial Hospital, Chicago, Ill. Complete in 3 volumes and separate desk index. 3500 pages with 1664 illustrations, many in colors. Philadelphia and London: W. B. Saunders Co., 1933. Per set, cloth \$35 net.

Three volumes of this most excellent textbook have been issued. Although there is an index for each volume, in order to expedite time in looking up references, a general index to the three volumes has been issued under separate cover. There are 1664 illustrations. A compilation on obstetrics and gynecology must be profusely illustrated in order to amplify intelligently the text.

The fact that Dr. Arthur Hale Curtis, professor and head of the department of obstetrics and gynecology, Northwestern University Medical School, Chicago, is the editor, immediately assures the success of the undertaking. There are 80 contributors. The following are from Pennsylvania: Brooke M. Anspatch, Floyd E. Keene, R. A. Kimbrough, Jr., Charles C. Norris, Edmund B. Piper, Edward A. Schumann, Norris W. Vaux, and Philip F. Williams, all of whom are in Philadelphia.

Dr. Curtis states it is planned to publish a new edition every 5 to 8 years, and a new editor to be chosen from time to time. Thus this product will become the encyclopedia of American obstetrics and gynecology.

Volume I. The opening chapter (190 pages) is a delightful "Historical" review by the competent Irving S. Cutter of Chicago, a most worthy historian. The section on "Physiology of the Reproductive Organs" (exclusive of pregnancy), is written by the distinguished endocrinologist, Emil Novak, of Baltimore, which assures the newer knowledge that is revolutionizing all activities pertaining to this far-reaching field. The sections on "Morphology and Physiology of Pregnancy" and "Labor" amply cover these academic subjects. As to the early diagnosis of pregnancy, the Aschheim-Zondek mouse test after the fifth week of gestation is credited uniformly with 97 to 100 per cent accuracy. Roentgenography is not certain until after the second trimester of pregnancy. In the section on "Pathology of Pregnancy," in the chapter devoted to the toxemias of pregnancy, no reference is made to the contributions on this subject by Fay and Arnold, of Philadelphia.

Volume II. Section on Pathology of Labor. The all-important subject of dystocia is ably discussed from its various causes. In prolonged labor, quinine is recommended preferably in 5-grain doses. Pituitrin should never be used with the head at the inlet, it also should not be used until the os is fully dilated. Thymophycin cautiously used is of value, but no reference is made as to dosage. This kind of omission is of too frequent occurrence in all textbooks, and by far the greater majority of articles. We frequently read and hear such and such a drug is indicated, in proper dosage, with no reference as to quantity; or, given in large doses or small doses, without any reference as to what the author con-

(Concluded on page xii.)

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BOOK REVIEWS

(Concluded from page 452.)

siders is *large* or *small*. Or this or that technic should be followed, with no reference as to its salient features. Authors should realize that the physicians and medical students who buy their books, do so with the idea of obtaining proper instruction, and the greatest number of physicians seeking instruction are not connected with hospitals. Hence when they turn to reference books, and too frequently find the subject matter dismissed in a vague, indefinite, unsatisfactory manner they are keenly disappointed. An author should realize that when he refers to a drug not in the Pharmacopœia, that he should sense the fact that the reader is apt to know little or nothing about it. Take the reference in the text to thymophysin, as an example. There is no statement as to usual dosage, how often repeated, whether given hypodermic, intravenous, intramuscular or by mouth. It simply states "is safe if carefully given in small doses." The average practitioner, who still does the majority of obstetrics, reading this would have to get in touch with his fellow practitioners in an endeavor to ascertain the facts, and then more than likely would have to go to his druggist to see what literature he may have regarding it. It is unfortunate that authors and publishers are not conscious of this unfortunate practice in textbook compilation.

The chapter on Hemorrhage is well worth while, the tables rendering visualization of what to do are quickly interpreted. In the Section on Pathology of the Puerperium, the chapter on Puerperal Sepsis and Thrombophlebitis, clearly defines the responsibility of the accoucheur as to the observance of prophylaxis, and states that in maternal mortality rates the midwife makes a better showing than the physician because she does not interfere with the course of normal labor, and she is not so likely to be a carrier of pathogenic organisms as is the doctor who is in attendance on all sorts of illnesses. The Section on Operative Obstetrics should appeal not only to the trained operator, but to those general practitioners who have an aptitude for obstetric procedures.

There are Sections on Infectious Processes and Tumors of the Uterus.

In this volume in characteristic style is "A History of American Gynecology," by Howard A. Kelly, which is of particular interest to his Philadelphia confrères.

Volume III contains sections on Displacements and Relaxations; Disturbances of Function; The Endocrines in Gynecology and Obstetrics; Special Diseases and Important Symptom Complexes; Other Gynecological Diseases and Symptom Complexes; and Special Topics. This volume covers much of value in everyday problems. It gives in detail the endocrinopathies because no branch of clinical medicine makes more points of contact with endocrinology than does gynecology. The physician should be continually advised of these advancements.

At the end of each chapter in the three volumes is a bibliography which affords an opportunity for more extensive collateral reading.

This work of Curtis cannot be too highly recommended. Every practitioner should have the set for daily reference and it should be in every library.

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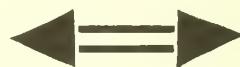
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No. 6

CONSIDERATION OF THE RESISTANCE OF TISSUE CELLS*†

WILLIAM DEB. MACNIDER, M.D., CHAPEL HILL, N. C.

States of susceptibility and resistance to disease have held the interest of experimental biologists as well as medical men from a remote period when such thought was of a simple nature and largely confined to superficial observations on different types of individuals, to the present time when it finds itself confused in a maize of intricate immunologic hypotheses. Very closely related to a consideration of immunity, resistance, and susceptibility are those conditions which may develop as a result of injury to tissue which, as it repairs itself, imparts a resistance to subsequent injury from the same or other substances.

As a result of the initial and fundamental work of Metchnikoff, followed by the brilliant investigations of Aschoff, Sabin, Maximow, and Cunningham, the striking part played by wandering cells of different types in preventing and terminating infectious processes has been securely established. Following this biologic conception of disease termination and resistance, came the work of Ehrlich with all its later developments which formulated a chemical conception of disease susceptibility, recovery, and resistance. As much as these two theories based on many sound facts explain, they fail to interpret facts concerning tolerance to drugs and other chemical substances and the resistance of some tissues in man and in certain of the lower animals to bacterial invasion. There is, for instance, no chemical or biologic explanation for the tolerance of the central nervous system to morphine. Rubsamen actually found more of this substance in the brains of habituated rats than in controls. The peritoneum of the rat and the dog are peculiarly resistant to bacterial infection. In the pregnant rat, with the use of a technic which may be very

far from flawless, the peritoneum may be opened, a fetus exposed and operated on, the uterus and abdomen closed with rarely any evidence of deep or superficial infection. The same type of observation may be made for ovariectomies in the pig and the dog. Such operative interference with the usual disregard for asepsis could not possibly take place in the human abdominal cavity without the development of severe infection. We explain the above facts with the statement that such tissues in the lower animals are resistant, and at the same time no explanation is offered for the resistance, whether it be biologic in terms of the activity of wandering cells; chemical, through the action of immune bodies; or of another order, in which the fixed cells of the tissues are taken into account.

Gay, in his Harvey Society Lecture, has not only discussed the activity of specific types of wandering cells in establishing a state of tissue resistance, but he has brought forward examples in which fixed cell metaplasias may participate in such a process. The formation of connective tissue in the process of healing and the development of callosities from pressure can not be considered as resistant tissues in the sense employed in this discussion, for such tissue is not a functionally effective tissue. It may resist, but it fails to prolong the life of the organ involved or of the organism as a whole. A fixed cell or tissue which imparts nonsusceptibility to injury must be at the same time of functional value in order to maintain the organism in a physiologic or semiphenomenologic state. Wolbach, in his studies of the effect of vitamin A deficiency, has observed changes in the type of epithelium during such periods, and following processes of repair brought about by a proper diet, the repair of such injury by a cell normal for the tissue or by keratinized epithelium.

For some ten years or longer studies have been

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

† These investigations were in part made possible by the Edward N. Gibbs Prize Fund of the New York Academy of Medicine.

in progress in this laboratory which have concerned themselves with the susceptibility of the kidney to injury from uranium nitrate and also the degree of resistance which it may acquire to this poison. Similar studies have also been made concerning the resistance which the liver may show to ethyl alcohol, chloroform, and uranium nitrate.

If uranium nitrate is given to the dog subcutaneously in the amount of 2 to 4 mg. per kilogram, the animal develops an acute kidney injury characterized by a polyuria with a large amount of albumin and numerous granular casts. At the same time there occurs a rapid reduction in the elimination of phenolsulphonaphthalein, a reduction in the reserve alkali of the blood and a retention in the blood of urea and non-protein nitrogen, which is followed later by a retention of creatinine. The characteristic anatomic injury associated with such a functional disturbance consists in an edema and vacuolation of the epithelium of the proximal convoluted tubules, a marked infiltration of lipoid material into these cells, which is followed by a variable degree of necrosis. The glomeruli at such a stage of the injury show no histologic evidence of damage. This, however, in no sense means that these structures are not damaged and functionally altered. Depending upon the severity of this tubular injury which is remarkably dependent upon the age of the animal, the processes of repair in the tubules may develop along two different lines which in turn divides these animals into two groups. If the acute injury to the epithelium has not been of a severe order, the cells which are not sufficiently injured, divide and re-line the convoluted tubules with a cell morphologically identical to those cells which were lost through degeneration. At such a stage of renal repair the glomeruli, with which this paper is not primarily concerned, show both capsular and intracapillary connective tissue hyperplasia. Associated with this type of specialized, normal epithelial repair, the animals usually return to a functional normal. There is a decrease in the output of urine which is usually free from albumin and casts. There occurs a reestablishment of a normal acid-base equilibrium of the blood, a return of the phenolsulphonaphthalein elimination to the normal, no retention of urea nitrogen or creatinine and usually a normal urea nitrogen content of the blood. This type of normal, specialized epithelial repair is not associated with any resistance whatsoever when a subsequent intoxication by uranium is undertaken. The regenerated cells undergo the same type of cytologic response induced by the first intoxication, the evidence of renal dysfunction

is of the same nature, and not infrequently the animals die in a coma with or without convulsions and preceded by an air hunger type of breathing.

There occurs a second group of animals intoxicated by uranium in which the initial renal injury is of a more severe pathologic character and which expresses itself by a greater degree of renal dysfunction. After an initial polyuria these dogs show a reduction in urine formation which may progress to a state of anuria. The percentage of albumin in the urine is greater than in the first group, the reduction in the elimination of phenolsulphonaphthalein is lower, the disturbance in the acid-base balance of the blood is more marked, and the retention of urea, nonprotein nitrogen, and creatinine reach higher values. A certain number of these animals fail to recover. Those animals of the group which effect a recovery do so in so far as repair is concerned to the convoluted tubules, not by regenerating an epithelium normal for this portion of the tubule but by re-lining the tubules with a flattened, histologically nonspecialized type of cell with large, eccentrically placed nuclei. Not infrequently the cytoplasmic material fails to differentiate into cells but remains as a syncytial layer containing prominent nuclei. This type of repair to the convoluted tubules which is associated with an advancing connective tissue hyperplasia in the glomeruli is expressed functionally by a marked return in renal function toward the normal, rarely to the normal. The animal has developed a diffuse type of nephropathy or Bright's disease.

The observation of importance in connection with this type of renal repair, is that the epithelial cells which now to a great extent re-line the convoluted tubules are resistant to secondary intoxications by uranium even when the amount of this nephrotoxic substance is increased from the primary amount of 2 mg. to 6 or 8 mg. per kilogram. Injections of such magnitude fail to induce an epithelial injury of the nature previously described and the functional value of the kidney is maintained.

The outlined observations would indicate the formation in the kidney reacting to injury from a chemical substance of a type of cell having a certain degree of functional value and yet one which gives to the kidney a resistance or protection from this injurious agent. The pathologic changes existing in such kidneys, though not permitting them to function perfectly, enable them to function in a measure effectively for the organism as a whole and give to them a certain integrity against injurious agents.

In more recent years, in this laboratory studies

have been made of the type of liver injury induced by chloroform, uranium nitrate, and ethyl alcohol, the functional effect of such changes, and the changes of repair and of liver function in such altered states of cell regeneration and recuperation. These experiments are now in progress and for the present no detailed account will be made of them.

Some years ago Whipple and Sperry were able to show that if a dog was starved for two days and anesthetized for two hours with chloroform, the animal developed a central liver necrosis involving the inner one-half to two-thirds of the liver lobules. They furthermore emphasized the remarkable ability of such injuries to undergo processes of repair with the formation of a normal type of liver cell. In our work these experiments have been repeated and confirmed in every detail. In these experiments there occurs as a result of the liver injury an increase in the initial plasma concentration of phenoltetrachlorophthalein and a decrease in the rate with which the dye is removed from the blood stream. As the processes of liver repair progress the concentration of phenoltetrachlorophthalein decreases in the plasma and the rate of its removal is more rapid until normal functional values are established by the liver for this substance. There are, however, a certain number of animals poisoned by chloroform in which this and other functional tests fail to return to the normal. A study of biopsy material from the liver has shown that in those animals in which such tests have returned to the normal value, the liver has repaired itself by regenerating a normal type of specialized, cuboidal cell; in those dogs in which the same tests failed to return to a normal value, the repair in the liver as a whole or in part has taken place through the formation of a narrow, flattened type of cell very similar in morphology to those cells described as developing in the injured kidney following intoxications by uranium. Here again, in terms of liver repair and functional restoration we have 2 types of animals: One with a normal type of cell repair and normal function; the other with an abnormal type of cell repair and depressed function. If animals in these 2 groups are again starved for 2 days and anesthetized with chloroform for 2 hours, their response both in terms of the development of a liver injury and liver function differs. The animals which developed a normal type of liver repair and a resumption in liver function, as indicated by the tests employed, fail to show any resistance both anatomically and functionally to a second exposure to chloroform. On the contrary, those animals which have repaired the liver by the

formation of an abnormal and atypical type of cell which is of less functional value than the normal cell, show a marked resistance to a period of anesthesia not only for 2 hours but for $3\frac{1}{2}$ hours. In such animals there has either occurred no liver injury or the central necrosis of liver cells has involved an area immediately around the central vein of the lobules. In such animals the plasma retention of phenoltetrachlorophthalein, which is normally below the normal concentration, is but slightly reduced and there is no interference with the rate of the removal of the dye from the plasma.

It would appear that in the liver, as has been indicated for the kidney, if the repair process involves the formation of an abnormal type of epithelial cell, there is associated with a decrease in hepatic function an increase resistance of such cells to injury.

During these years of study, a number of senile dogs have been under observation. Biopsy material removed from the livers of a certain number of these animals has shown the liver to have entirely changed its epithelial morphology. As a result of some factor, or factors, occurring during the life of such animals, the liver cell has changed from a cuboidal form to a flattened type with the formation between such rows of cells or syncytial layers of large venous sinuses. The use of phenoltetrachlorophthalein in such animals has shown a higher plasma concentration of this dye with a more delayed removal from the plasma than is the case in normal animals. This naturally acquired chronic type of liver injury resembles the type of injury developing in the livers of dogs in which the repair process following the use of chloroform resulted in the formation of an atypical epithelium. The use of chloroform as an anesthetic in such senile animals has shown this flattened type of cell to be resistant to this hepatotoxic agent. The cells do not become edematous and necrotic following a $1\frac{1}{2}$ to 2 hour period of anesthesia. Associated with this evidence of resistance, there is but slight interference with the functional value of the liver. It fails to depart from that pathologic, functional value which the animal has established as its normal.

CONCLUSIONS

1. These studies are not concerned with the part played by wandering cells or immune bodies in facilitating tissue recovery and inducing immunity to injurious agents.

2. The experiments with uranium in connection with a renal injury and repair, and with chloroform as a hepatotoxic agent, followed by repair would indicate the existence of a third

factor in tissue resistance; namely, one dependent on an alteration during processes of tissue repair of the type of cell normally found in a given location. Such a change in cell type usually results in a less functionally effective cell but imparts to the tissue the seat of such cell metaplasia a resistance against subsequent injury.

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ABSTRACT OF DISCUSSION

ALFRED N. RICHARDS (Philadelphia): Dr. MacNider has described the fashion in which two essential tissues of the body—kidney and liver—are able to acquire increased resistance to the poison uranium as a result of a previous toxic dose of that substance. If I understand him correctly, the essence of the process consists in the reparative replacement of certain highly specialized cells by relatively simple, unspecialized, primitive cells. The result of this replacement is increased resistance or tolerance to subsequent attacks by the same poison, together with decreased capacity of the tissue to conduct certain of its normal functions.

Finding in the case of the liver, that the increased tolerance extends to the poisons alcohol and chloroform; and that the tissues of old or senile animals contain cells like those which develop after uranium poisoning, he suggests that some at least of the functional disabilities of age as well as some of the increased resistances of age may be the result of such a tissue reconstruction as he has observed.

I am not in a position to discuss effectively the broader aspects of these phenomena or of his suggestions. Such a discussion must come from the pathologist and clinician. I am, however, greatly interested in his findings, particularly in relation to the kidney, and propose to indicate the questions which arise in my mind concerning them.

The proximal convoluted tubule is the preferred point of attack if uranium is given in toxic dose. Edema, necrosis, and desquamation result. If the attack is not too severe the tubule is completely restored to its original structure, functional capacity, and sensitiveness to uranium. If the attack is more severe, the regenerated tissue is simpler in structure, is less sensitive to uranium and the functional capacity of the kidney is less than normal.

The first question which occurs to me is this: Does something happen in the body of the animal that has become tolerant to uranium which causes less uranium to reach the kidney than would be the case in the normal animal? The answer is no. Gil y Gil in Aschoff's laboratory obtained results which indicate that the uranium tolerant kidney is capable of excreting uranium not only as well as but even better than the normal kidney. This, if true, shows that in the tolerant animal as compared with the normal there is no lessening in the amount and concentration of uranium which reaches the kidney following an injected dose.

Do the proximal convoluted cells of the normal kidney take up from the blood or from the lumen of the tubule more uranium than do these atypical replacement cells? There is a hint in Gil y Gil's work that this may be so. Possibly Dr. MacNider has made the experiment of comparing the uranium content of renal cortex taken from normal and resistant dogs under as nearly as possible identical conditions of uranium dosage. No matter how such an experiment might turn out it would be interesting to know how the finer

morphology of these atypical replacement cells compares with that of the normal cells, that is, in number, size, and shape of mitochondria and as to the Golgi apparatus of the cells.

A method for demonstrating these mysterious structures in the cytoplasm of almost all cells, called the Golgi apparatus, includes fixation of the tissue in a fluid containing uranium nitrate. Pappenheimer showed that early in uranium poisoning, before necrosis of cells occurs, the Golgi apparatus of the proximal convoluted tubules becomes disintegrated and disappears.

If by suitable comparisons of cytology, cytoplasmic structures could be identified in normal renal cells which are absent in the tolerant cells, the clue might be given as to the intracellular point of attack of uranium. It might do more than that; it might give a clue to the intracellular structures which are responsible for the cell functions which uranium first abolishes.

There are certain anomalies in Dr. MacNider's work. From one of his published papers I learn that the kidney of a uranium-tolerant animal does not excrete phenolsulphonphthalein as well as the normal kidney, though the liver of such an animal excretes phenoltetrachlorophthalein better than the normal. Can an explanation be suggested?

Again, old dogs which have never been poisoned with uranium possess atypical cells similar to those which develop in younger dogs as the result of a uranium poisoning and which are resistant to uranium. Yet, if I have interpreted Dr. MacNider's protocols correctly, it appears that deaths from first dosage with uranium among old dogs are more numerous than from first dosage in young dogs. Does this suggest that the spontaneously occurring atypical cells are only superficially like those which are laid down after uranium poisoning?

In previous work, Dr. MacNider has inclined to the view that the effect of uranium on the proximal convoluted tubules is to suppress secretory powers of those cells. He showed that it decreased the excretion of urea, of nonprotein nitrogen, of creatinine, and of phenolsulphonphthalein; others have shown that it causes glycosuria. Though I agree that his view is probably correct with respect to phenolsulphonphthalein, it is by no means established for any of the normal constituents of the urine. In respect to renal action, uranium is similar to mercury. We can demonstrate in the case of mercury that the peculiar, partial impermeability of the normal renal tubule which holds such substances as urea which should be excreted within the tubule, and yet permits the reabsorption of such substances as glucose and bicarbonate which should be absorbed, is abolished by the action of the poison. For the present we are inclined to believe that the deficient excretion by a mercury or uranium kidney is better explained by the hypothesis of disturbed reabsorption from the tubule than of disturbance in secretion, the evidence for which is still not wholly satisfying.

DR. MACNIDER (in closing): I have no further remarks of any significance to make in closing the discussion which was opened by Dr. Richards, except to thank him for his critical and analytical statement for which, in a paper of this character, I was not especially prepared. The paper is not intended in the least to raise the question or to participate in a discussion of the mechanism of urine formation. Such a discussion should appear in a more accurate form and before another type of audience.

The object of the paper as presented was to point out that in the kidney an altered type of epithelium estab-

lished for itself a resistance to an increased amount of uranium nitrate and associated with this resistance there is a maintenance of a certain degree of renal function. A similar type of statement may be made for the liver regenerating as a repair process to an injury from chloroform. If the liver repairs such an injury by the formation of a normal type of epithelial cell it has no

cytologic or functional resistance to this agent. On the other hand, if it happens to repair itself by the formation of a flattened, atypical type of epithelium resembling that seen in the repair process in the kidney, then it does develop a remarkable degree of resistance to this toxic agent, and maintains to a certain extent its functional value.

FUNDAMENTAL PRINCIPLES OF SPECIFIC CALCIUM THERAPY*†

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In spite of great advances which have been made in recent years in our knowledge of various aspects of calcium metabolism, there is still considerable confusion in the minds of many with regard to the practical application of these physiologic observations. It is becoming increasingly apparent that calcium metabolism may be influenced by a number of factors, among which may be mentioned the parathyroid hormone, vitamins B, C, and D, thyroxin, the acid-base balance, renal function, and the supply and degree of absorption of calcium and phosphorus. Because of the widespread therapeutic use of calcium salts, vitamin D, and the parathyroid hormone, this discussion will be limited to a consideration of certain indications for the employment of these agents in the treatment of primary disturbances of calcium metabolism. The clinical syndrome tetany, if associated with or dependent on hypocalcemia, constitutes the most specific indication for calcium therapy. The method of determination of the therapeutic procedure to be employed in patients presenting this symptom complex may therefore serve as an illustration of the rational management of certain conditions of primary calcium deficiency.

Our patient, then, presents himself with clinical manifestations of tetany associated with a subnormal serum calcium concentration. Since, in such cases, the symptoms are directly dependent on the existing state of hypocalcemia, the primary therapeutic indication is the restoration of the normal serum calcium level. This can be best accomplished by the administration of calcium salts, intravenously, intramuscularly, and orally. Intravenous medication should be employed as an emergency measure and should always be supplemented by intramuscular or oral therapy since its effects, although dramatic, are only temporary. Failure to secure beneficial results by oral calcium therapy is usually due to inadequate dosage and faulty instruction as to the

method of administration. Calcium gluconate must be given in doses (adults) of 60 grains and the lactate and chloride in doses of 20 to 40 grains, 3 to 4 times daily the dosage for children being calculated on the basis of body weight. Since a maximum degree of absorption occurs in the interdigestive period, when upper intestinal alkalinity is lowest, all calcium salts should be administered about 4 hours after or ½ hour before meals, preferably in water. No food should be taken between meals, with the possible exception of lactose. The intramuscular route may be employed alone or as a supplementary procedure, using 10 c. c. of a 10 per cent solution of calcium gluconate or levulinate, once or twice daily. Under this régime the acute symptomatic manifestations are usually relieved coincidentally with the increase in the serum calcium concentration.

In the great majority of such cases, however, this relief is incomplete and temporary, since the condition is usually dependent not upon an inadequate supply of calcium but upon a primary deficiency in either vitamin D or parathyroid hormone or, in some instances, both. Particularly in chronic forms of tetany, careful investigation of the underlying metabolic error is of fundamental importance in determining ultimate therapeutic success. Unfortunately the fact that both vitamin D and the parathyroid hormone cause an increase in the serum calcium concentration has led to their indiscriminate employment in all forms of hypocalcemic tetany with apparent disregard of the fact that the physiologic effects of these agents differ in several essential respects. In ordinary dosage, vitamin D causes an increase in serum calcium, an increase in serum phosphorus, and increased retention of calcium and phosphorus by the organism (in the presence of an adequate supply of these elements). On the other hand, the administration of parathyroid hormone is followed by an increase in serum calcium, a decrease in serum phosphate, and increased elimination of calcium and phosphorus. It is probable that vitamin D, in therapeutic doses and under ordinary conditions, causes an

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increase in serum calcium largely by increasing the degree of absorption of calcium from the intestine; the parathyroid hormone produces the same result by mobilizing calcium from the bones and perhaps other tissues.

The metabolic status of an individual with tetany dependent on vitamin D deficiency may be summarized as follows:

1. Subnormal serum calcium.
2. Subnormal serum phosphate.
3. Increased calcium elimination.
4. Increased phosphate elimination.

The metabolic features of tetany dependent on hypoparathyroidism may be summarized as follows:

1. Subnormal serum calcium.
2. Normal or increased serum phosphate.
3. Decreased calcium elimination.
4. Decreased phosphate elimination.

It is, therefore, apparent that practically the only feature common to these two conditions is a subnormal serum-calcium concentration, on which depends the symptom complex known as tetany which, because of its dramatic clinical features, overshadows the less conspicuous but more fundamental metabolic phenomena which characterize these pathologic states.

Whereas the administration of any substance which will increase the serum-calcium concentration may cause the manifestations of neuromuscular hyperexcitability to disappear, the administration of vitamin D to patients with parathyroid insufficiency and of parathyroid hormone to those with vitamin D deficiency is unjustifiable and cannot be expected to result in permanent improvement. It is inconceivable, for example, that infantile tetany, with a subnormally positive or, at times, a negative calcium and phosphorus balance, can be benefited by parathyroid therapy, which further increases the elimination of these elements. Similarly, hypoparathyroid tetany, characterized by increased retention of calcium and phosphorus, cannot possibly be benefited by the continued administration of vitamin D preparations, which further increase this retention. Furthermore, in uncomplicated cases, there can be no rationale in the simultaneous administration of these two agents. Evidence is accumulating which suggests that the toxic effects of viosterol are much more pronounced in the presence of diminished parathyroid function. Although therapeutic doses of vitamin D are perhaps incapable of producing such toxic effects as are obtained experimentally, too little is known at present regarding the effects of long-continued administration of this agent to justify its indiscriminate use in tetany dependent upon parathyroid insufficiency.

In the light of present knowledge of the physiologic effects of vitamin D and the parathyroid hormone, such irrational therapy should not be necessary. Failure to recognize this fact is responsible for many of the contradictory results obtained by the use of these agents, each of which acts in a specific manner, but in conditions of different etiology and pathology. The exact determination of the type of therapy to be employed depends upon careful investigation of the intake and output of calcium and phosphorus under standardized and carefully controlled conditions. This procedure is difficult, time-consuming, and usually impracticable. The serum phosphate concentration is, in the majority of cases, of great value in distinguishing between hypoparathyroidism and vitamin D deficiency, being increased in the former and usually subnormal in the latter. In some cases, particularly of the uncommon juvenile form of "idiopathic" tetany, both factors are apparently involved and combined therapy should be resorted to. Such cases are, however, seldom encountered and, in most instances, specific therapy, based upon careful metabolic studies, will result in much more permanent improvement than can be obtained by the haphazard simultaneous administration of vitamin D and the parathyroid hormone. A point of importance, which must be kept in mind in connection with parathyroid therapy, is the fact that the hypercalcemic effect of the parathyroid hormone diminishes after it has been administered continuously over a variable period, usually ranging from several weeks to several months. During such refractory periods, the dosage of calcium salts may be temporarily increased, if necessary, and parathyroid medication discontinued. The characteristic hypercalcemic response usually follows the subsequent resumption of parathyroid administration after an interval of 4 to 6 weeks, particularly if calcium salts are administered simultaneously.

The fact that the presence or absence of a state of calcium deficiency cannot be invariably determined on the basis of the serum-calcium concentration alone, deserves special emphasis. For example, in rickets and in some cases of osteomalacia the serum-calcium concentration may remain within normal limits despite the existence of a profound disturbance of mineral metabolism which can be detected by calcium and phosphorus balance studies and which constitutes an important indication for a specific form of calcium therapy. Similarly, during pregnancy and lactation, significant alterations in calcium and phosphorus metabolism occur, which, although they may be regarded as normal phenomena, have an important bearing upon the development

of certain subjective and objective manifestations during these periods. Although these changes are usually associated with a slight decrease in the serum-calcium concentration in the later months of pregnancy, a subnormal level is seldom encountered in uncomplicated cases. Calcium and phosphorus balance studies reveal a considerable degree of retention of these elements during the late months of gestation and a sudden transition to a markedly increased excretion during the period of lactation. Obviously, under such circumstances, the serum-calcium concentration is not a reliable index of the necessity for specific calcium therapy.

Errors of interpretation may be made in the opposite direction, for a subnormal serum-calcium concentration is by no means always an indication of the existence of a disturbance of calcium metabolism requiring specific treatment. The most common cause of this condition of what may be termed "secondary" hypocalcemia is a diminution in the concentration of serum protein. The importance of this factor in the maintenance of the normal serum calcium level has been recognized for some time, as has the fact that the fraction of serum calcium involved in this relationship, the so-called nondiffusible fraction, does not exert the characteristic physiologic calcium effect. Consequently, diminution in this portion of the serum calcium, which constitutes about 50 per cent of the total, is associated with none of the ordinary manifestations of calcium deficiency. The presence of low serum-protein concentrations in conditions of excessive loss of albumin from the organism, as in nephrosis and certain cases of glomerulonephritis, in states of malnutrition caused by pro-

tein starvation, and in various forms of enteritis, has been repeatedly demonstrated in recent years. Hypocalcemia is almost invariably present if the degree of hypoproteinemia is marked. Serum calcium concentrations ranging from 6 to 8 mg. per 100 c. c. are not uncommonly encountered in these conditions. Tetany, which almost always occurs with comparable grades of hypocalcemia owing to parathyroid insufficiency or vitamin D deficiency, is never observed in such cases, and calcium therapy, although at times valuable for its diuretic effect, should not be employed for the purpose of specifically influencing the subnormal serum-calcium concentration.

Several other examples might be cited in illustration of the fallacy of regarding the serum-calcium concentration as an index of the necessity or lack of necessity for specific calcium therapy. They would, however, serve only to emphasize the fact that rational calcium therapy must depend upon a thorough understanding of the metabolic status of the patient.

The following points should be stressed: (1) The importance of determining the indications for parathyroid hormone as contrasted with vitamin D therapy and the value of the serum inorganic phosphorus determination in this connection; (2) marked disturbances of calcium metabolism may be present in association with a normal serum-calcium level and a low serum-calcium concentration may be found in conditions in which calcium metabolism is essentially normal; (3) the concentrations of phosphorus and protein in the serum must always be considered in interpreting abnormal serum calcium findings.

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GASTRIC AND DUODENAL SURGERY*

Adapting the Operation to the Patient

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There is a need from time to time, in attempting to appraise the advances in the surgery of any organ, to stop and reflect upon the proved principles of the past and in what way the modern suggestions should change our attitude toward them. There is today no field of surgery in which a wider choice of operative procedure is possible than in dealing with gastric and duodenal ulcer. In fact it is difficult for the surgeon who wishes to be abreast of the times to decide

whether or not some new operative technic should replace the old and tried. In making such a decision we should not be carried away by the enthusiastic reports of a "cure-all" since there is certainly no place for hobbies in surgery. All that surgery can safely tie to is whether the change in technic more adequately meets the particular surgical principle involved. The many possible operations which may be done for gastric and duodenal ulcer may be reduced to a few, no one of which, however, can possibly meet the needs of every case.

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The pathology of any lesion should be the first factor to decide one in attempting its cure. Other important factors are invariably present, and although these are very well known and one may be accused of being trite in even mentioning them, it would seem that such basic principles are at times forgotten in the enthusiasm shown for a given procedure. We refer to the simple facts that in removing the pathology we must not alter too greatly the physiology and chemistry of the organ in particular and of the body as a whole, and that abnormal anatomy places restrictions upon us to be treated with respect. Again it is well to remember that surgery's chief obligation is to be life-saving first and ideal thereafter so that no procedure, based on theoretically ideal ground, is justifiable if it carries with it too high a mortality rate.

Are there any important advances in recent years in the understanding of the pathology of ulcer? It is well to use here the broader term pathogenesis which allows for a consideration of etiology. That some are more predisposed to ulcer than others seems most likely as well as the fact that to a certain extent at least it is a familial disease. Impressed with this fact in my own experience, I was interested in attention being called to the "vagotonic" type often with visceroptosis and atonic constipation, by W. B. Russ, of San Antonio, as often being the hosts of ulcer. Infection of course, is the real cause; however, the focus being in the mouth or throat as a rule. We have not been so much impressed in this country with the "ulcer gastritis" seen abroad, particularly in the German clinics. It would seem that such is the rule in Berg's Clinic at the Mt. Sinai Hospital in New York City, this being of interest since a large proportion of the patients there are of foreign birth. As is well known, Berg states that, in addition to free hydrochloric acid and secondary infection, ulcer is dependent on this specific gastritis. There must be a difference in the patients with gastric or duodenal ulcer as seen in his clinic and those on the Continent, with those seen in other clinics in this country and England. This difference may lead to still another, namely, that in our own and English clinics, callous ulcer is nearly always solitary; in the German clinics it is multiple in from 20 to 50 per cent of the cases as reported by 13 different authors. The presence of "ulcer gastritis" so frequently in ulcer cases and the multiplicity of ulcer in their own experience, has given rise to the present popularity of subtotal gastrectomy on the Continent and at Berg's Clinic in New York City. Since ulcer of either the stomach or duodenum so often is pres-

ent without "ulcer gastritis" the latter cannot be said to be anything more than an incidental finding. It seems certain, however, that the etiology of ulcer, in all its factors, is a complicated matter and that no one factor can be held responsible. Though infection is undoubtedly the direct exciting cause and the most important of these varying factors, this factor alone cannot become operative unless local conditions make it possible. We know that the normal resistance of the gastric mucosa must be lowered—this is brought about by infarction or by metastatic infection—then the acid gastric juice causes further destruction of tissue which was formerly resistant to it.

Recently Elman and Hartman's experimental work seems to show that since spontaneous ulcers of the duodenum developed in dogs in whom pancreatic juice had been excluded but who have been kept in good condition otherwise, pancreatic secretion must at least help to prevent ulcer by neutralizing gastric acidity. This factor becomes operative in the reflex pylorospasm so often seen from varying causes and explains one of the good effects of pyloroplasty. An important practical fact in any consideration of the pathogenesis of ulcer is the location in which it is usually found. A few years ago it was thought that gastric ulcer was most frequently to be found in the pyloric portion of the stomach, the so-called "ulcer-bearing area." More recent statistics of large series from clinics, in this country and abroad, prove that such is not the case and that gastric ulcer is certainly most common along the lesser curvature, the pylorus being distinctly relegated to second place in this respect. This fact is more important than its mere statistical record would indicate since it plays a part in the latter-day opinion concerning the ulcer-carcinoma sequence. If carcinoma developed on ulcer with anything like the frequency which it was formerly thought to, we should find carcinoma more frequent along the lesser curvature than anywhere else. Such is not the case and gastric cancer is more common at the pylorus where it has always been thought to be. Since, however, one cannot escape some consideration of this question in any paper on gastric ulcer, it has certainly been my own experience that cancer located anywhere else in the stomach than at the pylorus is not usual. It is difficult to arrive at the truth in this matter of ulcer-carcinoma sequence. In 1900, W. L. Rodman, in a paper before the American Surgical Association, was the first to suggest that pylorectomy or partial gastrectomy becomes the operation of choice for gastric ulcer located at the pylorus. This sug-

gestion was based on the following thoughts which at that time were universally accepted.

Ulcer was more commonly located at the pylorus than anywhere else in the stomach—cancer was also. Pathologists reported evidence of cancer developing on ulcer in from 26.6 to 90 per cent of the cases; the prevailing clinical opinion of the times placed the ulcer-carcinoma sequence on an average of at least 70 per cent of the cases; in doing so one would prevent future hemorrhage and perforation which at times followed gastro-enterostomy without excision of the ulcer. Finally, in the hands of those doing a reasonable amount of gastric surgery, the mortality of pylorectomy was about 8 per cent compared to the 5 per cent mortality of gastro-enterostomy in the same hands; an entirely justifiable increase in mortality rate if one considered the increased benefits of the then seemingly radical suggestion of pylorectomy.

Rodman's original suggestion has long since become the accepted practice of the day, carried to extremes, however, in that this principle has been extended to ulcer anywhere with always a greater part of the stomach being removed until now we have in the hands of some a subtotal gastrectomy being done even for duodenal ulcer! My father would hardly have recognized this Frankenstein, allowed to evolve from what the quarter of a century since then has proved to be sound surgery if limited to his original proposal. It is true that some of the tenets on which this suggestion was based have proved to be incorrect. As has been said, we now know ulcer to be, first of all, more common along the lesser curvature than at the pylorus, and also that the earlier estimates of the frequency of the ulcer-carcinoma sequence, both pathologic and clinical, were wide of the mark. Thus M. J. Stewart, of Leeds, a careful and conservative pathologist, basing his opinion on Moynihan's large series, states that about 17 per cent of the gastric cancers show pathologic evidence of having developed on ulcer, but that only 9.5 per cent of the gastric ulcers will undergo malignant change. This seems to be in keeping with the present-day pathologic opinion although at the Mayo Clinic at which gastric surgery has been developed by the skillful hands of W. J. Mayo, Judd, and Balfour, to its highest point of achievement, the pathologic opinion still prevails that the ulcer-carcinoma sequence is much more frequent than this and is in reality more nearly that of the earlier pathologists.

On the clinical side, present-day opinion has, of course, been influenced by pathologic conservatism. Some few years ago I asked 25

American surgeons doing a large amount of gastric surgery to commit themselves on this point. The average was that about 25 per cent of gastric ulcers would become malignant if there was not interference with their pathologic course. It seems, therefore, that while cancer usually develops in the stomach as such, it at times develops on ulcer probably in one quarter of the cases. If this is so the chief difficulty lies in predicting which one of every 4 ulcers will do so. This, of course, cannot be done, so an important reason for removing the "ulcer bearing area" if possible is still much to be considered.

Further experience with partial gastrectomy for pyloric ulcer has brought out other facts of importance not known at the time of this original suggestion. Leaving out of consideration any thought of the ulcer-cancer sequence, pylorectomy has proved itself to be a more certain means of restoring the patient to health. Unless there is actual obstruction at the pylorus the stomach does not tolerate well a gastro-enterostomy. Again, for some reason not altogether clear, it seems that gastrojejunal ulcer is more apt to develop at the site of the stoma if the original ulcer is allowed to remain than if a pylorectomy is done. Partial gastrectomy for gastric ulcer located at the pylorus, therefore, and at the time at which it can be done with reasonable safety, has long since taken its place as sound surgery based on pathologic, physiologic, and clinical evidence. This operation, however, is not a "cure-all," cannot be done in many cases of gastric ulcer, and should not be done for duodenal ulcer, since here simpler procedures are adequate and carry a lower mortality rate.

What has just been said in justification of partial gastrectomy for ulcer logically followed on the discussion of the ulcer-carcinoma sequence. It will be referred to again in the closing part of this paper, chief purpose of which is to fit the operation to the case in hand.

Very little time and space need be taken up with a present-day discussion of the symptomatology of ulcer, either acute or chronic, gastric or duodenal. For the most part these cases run "true to form" and their symptomatology is well known. All cases of "indigestion" recurring periodically and not directly after flagrant dietary indiscretions should be submitted to a thorough gastro-intestinal, roentgen-ray study. If the roentgen-ray evidence is negative for either gastric or duodenal ulcer the chances are we are dealing with an early acute gastric ulcer or duodenitis. In either case medical treatment is all that is indicated and will result in relief in symp-

toms and often cure. If the symptoms become chronic, however, the ulcer is surgical and the roentgen ray in about 90 per cent of the cases will show a solitary lesion, or filling defect, of appreciable size.

Even though in the unusual case the clinical symptoms and findings are lacking to make the diagnosis entirely complete, an exploratory laparotomy should be done. There is little danger in a properly carried out exploratory laparotomy and only in this way can we get these cases before late complications make operative cure difficult, if at all possible. Again, many cases of early carcinoma of the stomach should be detected in this way. Were this practice universal, it would go far to correct the distressing fact that at present only 1 in 10 cases of cancer of the stomach receive the benefits of curative surgery at the time at which there is a good chance for permanent cure. It has certainly been my experience, and that of most other surgeons, that about 90 per cent of the cases of gastric carcinoma presented for operation are inoperable. This is most regrettable since the chances of cure should be about as good as for cancer of the breast provided we could submit these cases to operation sufficiently early.

What operative procedure shall the surgeon choose in dealing with gastric ulcer, for here the problem is much more complicated than in dealing with duodenal ulcer? A wide choice is open to him. No one procedure can be adopted as the one operation of choice, but must be made to suit the case at hand and not the reverse. It is my belief that in uncomplicated ulcer relatively few procedures will meet the surgical need. Ulcers being most frequent along the lesser curvature, it is well to consider them first. For those located in the pyloric zone, and in which it is possible to mobilize the stomach, a partial gastrectomy is the operation of choice provided one is dealing with a patient who is a reasonably good operative risk. There is, of course, a higher operative mortality rate in doing a partial gastrectomy than in doing a gastro-enterostomy. This difference in mortality rate, however, in the hands of a surgeon reasonably experienced in gastric surgery should be at the present day about in the ratio of 5 to 2 per cent. The difference is certainly not too great a price to pay for the following reasons: Carcinoma is more apt to develop on ulcer as it approaches the pylorus, the stomach functions better and, therefore, the patient is more apt to remain in health once the operative risk has passed, also, gastrojejuno ulcer is less apt to develop later; for those ulcers nearer the cardia, local excision

either by the cautery method of Balfour or cautery knife plus gastro-enterostomy; for those in the anterior wall of the pyloric antrum, partial gastrectomy; nearer the cardiac portion the same procedure as for ulcers along the lesser curvature nearer the cardiac portion. For pyloric ulcers, pylorotomy or partial gastrectomy is the ideal procedure but it cannot always be done with reasonable safety. Oftentimes the pylorus is so densely adherent to neighboring viscera that the stomach cannot be sufficiently mobilized. In these cases a simple gastro-enterostomy is all that should be attempted. It is true that at the time the inflammation subsides, the pylorus will resume normal function and the stomach may then present two functioning openings. That happens, however, but rarely. I have given up routine closure of the pylorus as being unnecessary. The cases with a nearly closed pylorus, however, as from cicatricial ulcer, with a dilated stomach, do well, perhaps the best of all, with a gastro-enterostomy. The pyloroplasties of Finney and Horsley are undoubtedly good procedures in their hands. The average surgeon, however, cannot hope to become skilled in more than a few of the many operations devised for duodenal ulcer. I have rarely found any need for doing anything more than gastro-enterostomy or Judd's excision of the ulcer if it is located on the anterior wall as it usually is.

Many cases of duodenal ulcer will go along for years without surgery if the patient is willing to follow dietary restrictions and to have such pleasures of life as smoking and drinking, even in moderation, restricted. Many persons are unwilling to do so, and deliberately choose surgery instead. Should I be so unfortunate as to develop such an ulcer I would probably be one of these. Duodenal ulcer is certainly more apt to bleed seriously and to perforate than is gastric, in spite of the strictest medical regimen possible. I shall continue, therefore, to operate on cases of duodenal ulcer in which medical treatment has been given a fair trial and failed, and in those patients who are unwilling to follow out the prolonged medical treatment necessary.

Subtotal and total gastrectomy are procedures of which I can say little or nothing from experience, but for different reasons, the former will never become a popular operation since, to most surgeons, it is not justified by the tenets upon which it is based. As has been said, an "ulcer gastritis" is not a common finding in the clinics of this country or Great Britain. It does not entirely remove the acidity factor which is dependent upon removing completely all gastric mucosa. There is an admitted mortality of from 7 to 21

per cent which makes one feel that it is entirely too drastic a procedure to employ routinely in the cure of the average case of gastroduodenal ulcer which may be cured in 80 per cent of the cases by much less drastic means.

There are now 88 cases of total gastrectomies on record as reported by C. A. Roeder in the August, 1933, *Annals of Surgery*. I have never had a justifiable opportunity to perform this operation but it apparently can be successfully done and should be at least considered. The mortality is and will remain very high and, therefore, it should be the last resort and only done if there is a practical certainty that less drastic procedures will fail, as in carcinoma high up on the lesser curvature or in the body of the stomach. It as yet seems to have no place in the treatment of ulcer.

So far as the complications of ulcer, either gastric or duodenal, are concerned, one cannot always follow a rigid rule. The management of hemorrhage from either is usually a medical matter. Duodenal bleeding is more apt to be serious than gastric, although I have seen two instances of gastric hemorrhage from ulcer which all but resulted fatally. The indication to operate for acute hemorrhage must rarely arise as I have not had to do so and have not seen a single patient die from this cause if the bleeding occurred as a complication previous to operation. The medical management of such hemorrhage is well known and need not be gone into here.

Duodenal ulcers perforate more frequently than gastric. Usually it is sufficient to close the perforation but if one is fortunate in getting the case early and is dealing with a fairly good operative risk a gastro-enterostomy or Judd's excision of the ulcer may be done. The latter procedure is logical and worthy of a trial more often than has been given to it.

Partial gastrectomy for perforation of a gastric ulcer is occasionally justifiable—if the ulcer be located in the pyloric zone, the case comes to operation within the first few hours, and is a reasonably good operative risk. Here, however, simpler procedures will usually be called for, such as closure of the perforation or local excision with or without gastro-enterostomy, depending on the location of the ulcer.

To summarize: There is no field of surgery which will tax one's surgical judgment more than to choose in every instance of gastric or duodenal ulcer the proper procedure to fit the patient. The choice will vary somewhat, of course, according to one's experience, but it is certain that no one procedure will fit all.

ABSTRACT OF DISCUSSION

J. P. GRIFFITH (Pittsburgh): In the problem of peptic ulcer, pathogenesis is not well understood. Therapy is a field for conflict and dispute; hence so many variations, medical and surgical, in the treatment of this common ailment. It is a very true paragraph read by Dr. Rodman in which he refers to the simple fact that in removing the pathology we must not alter too greatly the physiology and chemistry of the organ, and that abnormal anatomy places restrictions upon us to be treated with respect. To state my grounds in this discussion, I am rather conservative in the treatment of gastric ulcer in the duodenal segment.

We all admit that treatment of peptic ulcer should be instituted and carried out under very careful restrictions and observations. In recent years the medical treatment has been very much enhanced by the periodic 10-day to 2-week examination by the roentgen ray in regard to the very definite improvement or very definite increase in the flora usually present and well defined in ulcers. In the past, the handling of these cases medically has been left too much to sympathy and the time would go by when the patients should present themselves for treatment and were, therefore, seen only after they had developed carcinoma. It is possible that such cases may be detected earlier with a very careful roentgen-ray examination, which should be made usually by the individual treating the case.

With regard to surgical treatment of peptic ulcer, excision of the ulcer if possible, with often more radical procedures, is the ideal treatment. I question whether the duodenal ulcer is the more simple one. Carcinoma seldom develops in the duodenal segment. Cauterization of the ulcer and excision, or the Judd operation, often leaves the duodenal segment in such condition that nothing else is necessary in the way of treatment for that particular case. In the chronic duodenal ulcer which is adherent posteriorly, possibly involving the common duct, it is surprising how a simple gastro-enterostomy will effect a cure. We malign this operation, but at the same time know in that type of case gastro-enterostomy is an effective operation. Furthermore, if it is not effective one always has the opportunity to return and do something more radical. We should retain as much of the gastric mucosa as possible when dealing with ulcers.

The gastric ulcer offers a different problem. I recall meeting a student of the late Dr. W. L. Rodman when he first started to talk about operations on the pylorus and, as Dr. Stewart Rodman mentioned, his basis for treatment was sound at that time and still is. It was then thought that most ulcers occurred at the pylorus. It was proved later that the lesser curvature is the pathway of the stomach and that trauma exerted at that point may cause gastric ulcers. Now we know that in this country single ulcers are quite common, yet we must not forget that we do occasionally find multiple ulcers. To cite a case of my own: A patient with a large pyloric ulcer, upon whom a gastro-enterostomy was done. The patient did well for a week, then suddenly went into shock and within a few hours died. Necropsy revealed an ulcer at the cardiac end of the stomach. Since that occurrence I have been more careful in going over gastro-duodenal segments for duodenal ulcer and have found this condition more frequently than I thought possible.

Going back to our own experience in the treatment of biliary tract disease we will find in the first 100 cases that there were no stones in the common duct; in the second 100 cases, we find more of them, and so on.

Paradoxical as it may seem, that is a good reason for being conservative in the treatment of gastric ulcer because we cannot be sure in all cases whether or not we are dealing with an ulcer in the cardiac end of the stomach which may be located high up. The case referred to had an ulcer just at the margin of the esophageal end of the stomach.

We do not see ulcer gastritis in our clinics and have found little reason for doing drastic and excessive excisions of the stomach for prepyloric or duodenal ulcer. No doubt it is done in some areas, particularly in Germany, and also at the Mt. Sinai Clinic in New York.

The normal gastric secretion is highly acid. To take care of that high acid secretion there must be some neutralizing factor and this is supposed to come from two sources—the reflux of the contents into the stomach, and the direct secretion of the stomach itself, probably in the form of mucus, brings down that high acid content to a state of normalcy. When anything happens to the neutralizing effect of the acid secretion there forms a combination of hyperchlorhydria and pep-

tic ulcer in many instances. As soon as it becomes possible to control gastric acidity we will probably know how to influence the acid factor in pathologic conditions on this basis, and rational cure, medical, surgical, or both, may be possible.

JOHN H. GIBBON (Philadelphia): In recent years my disposition has been to make much wider resections of the stomach for gastric ulcer, in order to make sure that a sufficiently wide removal is done in a case in which malignancy has occurred. Wide resections are best for ulcer of the stomach. Visiting some of the European clinics we found that in every clinic subtotal gastrectomy was being done for duodenal ulcer. In Paris, at the clinic of Gosset, gastrojejunostomy was being done for duodenal ulcer. We asked him why he preferred this operation to a subtotal resection which we had seen done in other European clinics. His answer was that if he had a duodenal ulcer he should want a gastrojejunostomy performed upon himself. I agree with Dr. Rodman that subtotal gastrectomy is not justifiable for duodenal ulcer.

REFINEMENTS IN THE TECHNIC OF THYROIDECTOMY*†

HAROLD L. FOSS, M.D., DANVILLE, PA.

Sir Berkley Moynihan¹ once said, "compared to surgery of the biliary ducts, surgery of the brain is work for the tyro." Would it be unreasonable to add that surgery of the biliary ducts is child's play in comparison to surgery of the thyroid gland?

In 1872, in Philadelphia, the leading American surgeon of his time wrote: "When goiter resists our curative efforts, and endangers suffocation, it has been proposed to afford relief by extirpation. But no sensible man will, on slight considerations, attempt to extirpate a goiterous thyroid gland. If a surgeon should be so adventurous, or foolhardy, as to undertake the enterprise I shall not envy him his feelings, while engaged in the performance of it, or after he has completed it, should he be so fortunate as to do this."²

Surgery of goiter has progressed far since the days of Gross. The physiology and pathology of the thyroid gland are probably as well understood as in the case of any organ of the body, and the procedure of extirpation of goiter has reached a remarkably high state of technical perfection. The operation, however, remains one of the most intricate in surgery, one which, although capable of producing miraculous results with an exceedingly low mortality, is as yet a procedure fraught with the greatest dangers, if not carried out with special care and judgment.

First, a skilled surgical team is not only desirable but quite necessary. I once heard a foreign surgeon, one with musical inclinations, refer to his operating group as a quartet, or "quarteto" as he called it, comparing the violins, the viola, and the violoncello to the surgeon and his assistant, the anesthetist, and the instrument nurse. Famous quartets, like the Flonzaleys, rehearsed and played together for many years; similarly, with an operating team, a perfect organization can be effected only after years of the closest association during which its members may perform thousands of operations. Such a "quarteto," therefore, is the first requisite for the best work in the complex procedures involved in the operative treatment of goiter; but, given such a team, working in a perfectly appointed operating room, what are some of the technical refinements it must bear in mind constantly in order to achieve the greatest good in handling the patient with thyroid disease, especially, the patient with toxic goiter?

First, the patient must be well prepared, and at this stage our sheet anchors are rest and iodine. No greater contribution has been made to the problem of the treatment of goiter than the re-introduction by Plummer of iodine in pre-operative treatment; although Roger of Salerno had, in 1170, mentioned iodine in treating goiter. Moreover, referring again to Gross,² we find that in 1872 he stated: "My plan in this disease, for many years, has been to subject the patient to a kind of preliminary treatment, consisting of

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† From the Department of General Surgery, Geisinger Memorial Hospital.

light diet, and gentle but steady, purgation. After the lapse of ten or twelve days, the use of iodine may be commenced, either in substance, or in the form of Lugol's solution."

Recently we have learned that while iodine is of incalculable benefit in the preoperative prep-

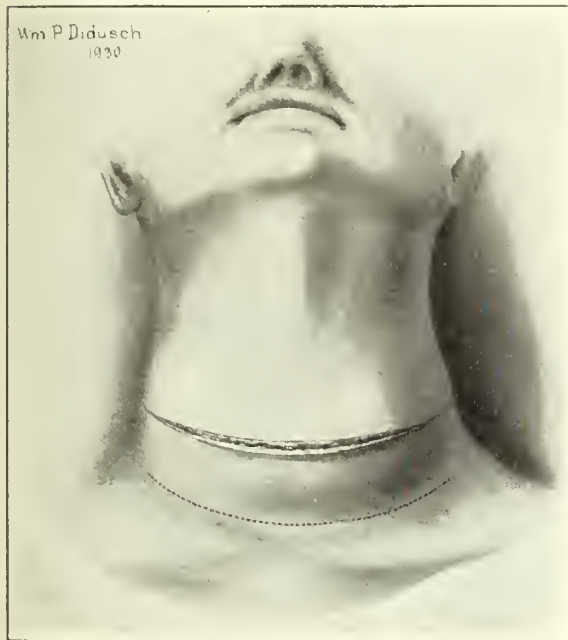


FIG. 1.—The skin incision should not be made immediately above the episternal notch at the desired site of the ultimate scar but at least 3 cm. above it and almost transversely rather than with a downward convexity. If so placed it will ultimately contract to the desired location.

aration of the patient, its use must not be long continued, the optimum duration of time for its administration, in the average case, being about eight days. Furthermore, the iodine should be given while the patient is at complete rest in bed in the hospital under the watchful care of the surgeon and cardiologist, the treatment usually being terminated and the operation carried out when the pulse rate levels off and ceases to fluctuate and when the basal metabolic rate has fallen to the irreducible minimum.

The preoperative administration of the barbiturates, especially sodium amytal or nembutal, two hours before the operation, has proved of the greatest value. It is now rare to have patients returned to their rooms from the operating room without an operation because of high pulse rates largely due to psychic disturbances; such occurrences were frequent in the days before the introduction of these sedatives.

In surgery of goiter I have experimented with nearly every practical and safe anesthetic: Local for many years; later, nitrous oxide, ethylene, ether, and various combinations of these agents but the safest and most satisfactory anesthesia is

produced by administering nitrous oxide and oxygen, plus local skin infiltration with novocain, with no attempt to infiltrate below the deep fascia. There are excellent and logical arguments why ether, ethylene, avertin, or any form of rectal anesthesia is not so satisfactory as the nitrous oxide-local combination.

The skin incision should be made high, not at the position of the ultimate scar, but at least an inch above it, and almost transversely rather than with a pronounced downward convexity. The pretracheal muscles may be divided transversely, if a helpful increase in exposure is needed; but as a routine I do not find it necessary as does Lahey; neither should one hesitate to cut these muscles, even on both sides; although it seems an ill-advised step in the minds of certain writers, who make almost a fetish of nondivision of the sternohyoids and sternothyroids.

The difficulties of the operation do not become fully apparent until the gland is exposed; then real problems present themselves. What amount of tissue should be removed; from what part of the gland; and just how this section is to be excised, are questions which at once arise and are answered only by an experience that must be, if the best results are to be obtained, greater, and more painstakingly acquired than is the case with any other procedure in the whole field of oper-

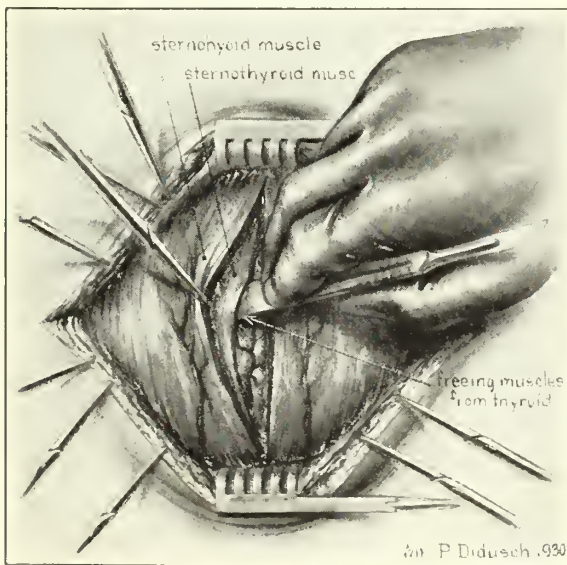


FIG. 2.—The sternohyoid muscle is separated from the surface of the gland by means of the handle of the scalpel.

ative surgery. These questions, especially the important one of avoidance of injury to the superior and recurrent laryngeal nerves and the parathyroid glands—delicate structures situated in close proximity in an exceedingly limited area and frequently obscured by hemorrhage from

one of the most vascular organs in the body—justify our placing the operation in the class of technically difficult procedures referred to by Sir Berkley Moynihan.

Recently it has been emphasized that caution should be exercised in protecting the superior as well as the inferior laryngeal nerve; for not only does this nerve, following its origin from the ganglion nodosum of the vagus, supply the cricothyroid muscle, but by its internal branch it sends filaments to the interarytenoids, which aid in approximating the posterior portion of the cords, its injury occasionally accounting for voice changes often mistakenly attributed to damage of the recurrents. As the superior laryngeal nerve lies close to and parallel with the superior thyroid artery, ligation of the superior vessels should be carried out with as great care as ligation of the inferiors. Double clamps should be applied to them, so placed as to avoid the nerve, but yet so as to secure amply the artery and vein, these vessels finally being controlled by means of a strong transfixion ligature. At this point, carrying out Dinsmore's plan, one may place three "pilot" clamps, one at the superior pole, one on the middle thyroid vein, and one on the inferior thyroid artery; the dissection can then be carried out without danger of serious hemorrhage.

The recurrent laryngeal nerve is motor to the intrinsic muscles of the larynx, and of the two

called to the gravity of the situation. Only a routine *pre* and *postoperative* laryngoscopic examination of the vocal cords will reveal this incidence with anything approaching accuracy, a

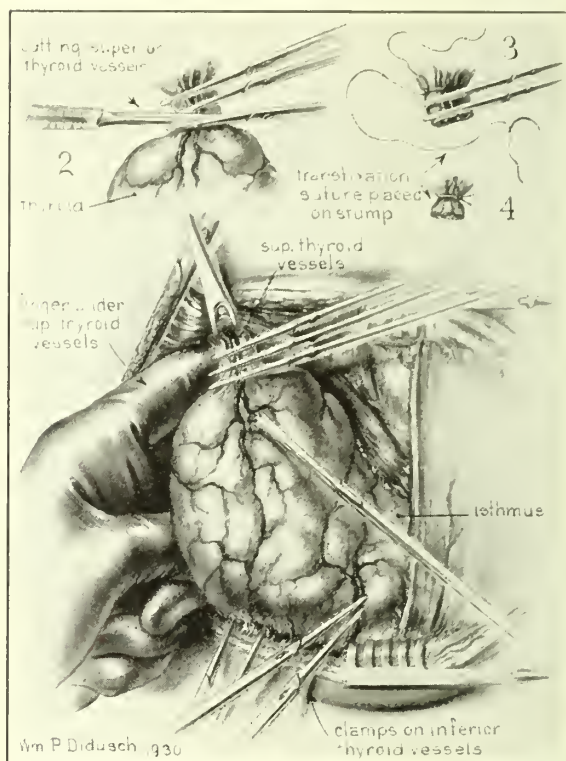


FIG. 4.—The superior thyroid artery and vein are clamped with two pairs of hemostats, a third hemostat being placed, distally, to control back bleeding from the gland. Ligation of the vessels may be performed at once or left until later, satisfactory control of hemorrhage being provided by a transfixion ligature as shown in 3. In this step care must be taken to avoid injuring the superior laryngeal nerve.

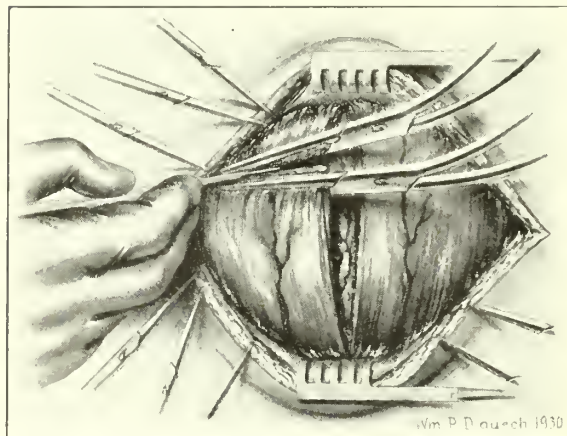


FIG. 3.—Occasionally it is necessary to divide the sternohyoid and sternothyroid muscles. It is not a routine procedure but is extremely helpful with large goiters especially with high lying superior lobes.

it is the more important—at least, from the standpoint of the surgeon. It is probable that the incidence of operative injury to one or the other of these important structures is far greater than statistics would show, it being only when both recurrents are paralyzed and when the patient develops serious voice changes and respiratory embarrassment, that one's attention is

routine which should invariably be carried out. Only by this method, plus meticulous technic in resecting the gland, can one avoid producing unilateral abductor paralysis, to which Crile³ refers as a "misfortune," or bilateral paralysis, which he rightly calls a "tragedy."

The recurrent laryngeal nerve arises at different levels on the two sides ascending in a groove, near the posterior aspect of the trachea, to enter the larynx at the cricothyroid articulation. Years ago Kocher realized and pointed out the danger of its injury; while recent writers have exhaustively discussed the subject. Lahey, as does De Quervain, believes that the inferior laryngeal nerve on the right side is usually anterior to the artery and posterior on the left, but this is not agreed to by Nordland, who in 31 dissections found no difference in the arrangement on the two sides. These are academic questions—interesting to the anatomist, but the surgeon may avoid injury to these delicate and essential structures by applying his clamps to the

substance of the gland and never posterior to a transverse line parallel with the anterior surface of the trachea. Too frequently severe post-operative dyspnea has been attributed to "tracheal collapse" when, actually, the true state of affairs is a collapse of the cords as a result of bilateral nerve injury. Jackson has never seen so called tracheal collapse, and neither have I.

Extra fascial ligation of the inferior thyroid arteries is practiced by De Quervain with the idea of controlling hemorrhage and as a means of avoiding injury of the recurrent laryngeal nerves. This procedure is approved by Nordland, but it is time-consuming, and I have not noted, not even in Berne, that it especially decreases bleeding; although, undoubtedly, the nerve is more easily avoided.

In the case of nodular, or so-called adenomatous goiter, the problem is merely one of removing all nodulations, at the same time leaving sufficient gland structures to maintain normal thyroid function; however, with exophthalmic, or hyperplastic goiter, the procedure differs in many important particulars. In the latter case sufficient gland should be removed to reduce metabolic activity to normal, thus effecting an amelioration of symptoms; yet the greatest caution must be observed not to excise so much tissue that a state of hypothyroidism ultimately results. If insufficiently removed, recurrence may be expected; if too much, myxedema. Too little excision is far better for the patient than too much; in the latter case, thyroid extract becomes the only means of relieving the symptoms. Richter, however, advocates almost complete thyroidectomy, followed by a long course of thyroid administration, a plan, however, to which only a few American surgeons subscribe.

The amount that may properly be removed will depend on the activity of the process, the patient's age, the size of the gland, and the duration of symptoms; a safe rule, but one that can not be dogmatically stated, is to leave all thyroid tissue posterior to the level of the anterior surface of the trachea. Yet by this procedure in the endeavor to avoid the recurrent nerve the error of leaving too much gland structure should be guarded against. As a general proposition, more tissue should be excised in young than in old patients and more in acute cases than in those of long standing. The larger the gland, the more thyroid substance is removed.

Lahey and Terry and Searls have all called our attention to the danger of removing parathyroid glands which may lie on the anterior surface of the gland rather than in their usual location on its posterior aspect, and they have advised a routine search for these bodies in every

thyroidectomy. Next to bilateral abductor palsy, no postoperative complication is more serious than severe tetany and the other symptoms of hypoparathyroidism. A combination of both these complications produces a truly terrifying picture and one to be sedulously avoided. During the dissection the position of the parathyroids must be constantly borne in mind and injury to them, or to their blood supply, scrupulously avoided. Normally, the superior parathyroid is found on the posterior surface of the gland at the junction of its upper and middle third and the inferior pair at the junction of the middle and lower thirds; yet, as has been men-

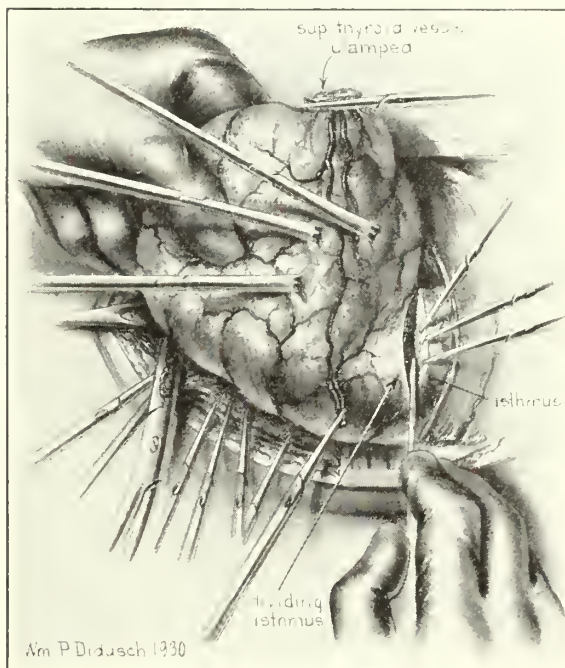


FIG. 5.—Division of the isthmus.

tioned, one or more may be found on the gland's anterior surface. An especially valuable refinement in avoiding the parathyroids, as well as the recurrent nerves, is to outline on the outer surface of the gland the line of proposed resection while it is rotated slightly inward; then, to carry the incision about one-quarter of the way into its substance, finally, rotating it outward, to complete the resection from the tracheal side into the gland and, transversely, outward joining the first incision.

Surgeons who have operated on many goiters are aware, in avoiding injury to the recurrent laryngeal nerve, of the uselessness of attempting to remain always within the capsule of the gland. The so-called capsule, actually a pretracheal layer of the deep cervical fascia, is reflected over, rather than around, the gland, and its arrangement, especially in large goiters, is most incon-

sistent. It is better constantly to bear in mind the normal position of the nerve in its close relationship to the inferior thyroid artery, which

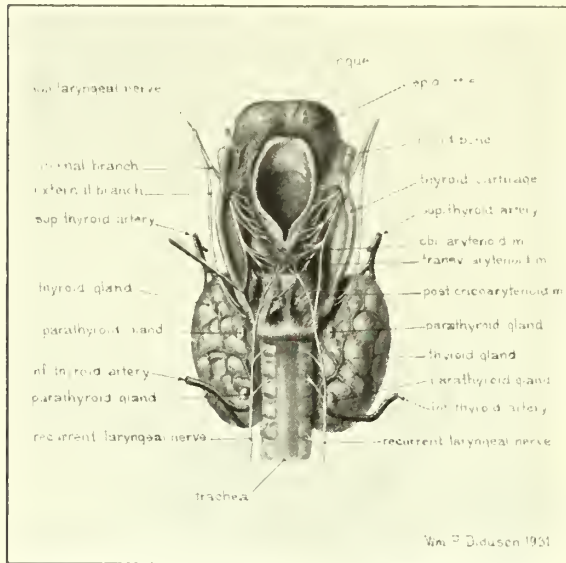


FIG. 6.—The posterior aspect of the trachea and larynx, showing the distribution of the branches of the inferior laryngeal and recurrent laryngeal nerves; the blood supply of the thyroid; the location of the parathyroids.

does not enter the gland at its inferior pole as is often supposed, but higher on its posterolateral surface at the junction of its middle and lower third. It is at this point that the structures may be gently pushed posteriorly with the handle of the scalpel, or with a bit of gauze, displacing the recurrent laryngeal nerve and the inferior thyroid artery from the field, thus going far toward avoiding injury to them as well as to the middle thyroid and internal jugular veins, hemorrhage from which is occasionally severe and difficult to control.

No step in the operation is more important than complete control of bleeding; hence, the wound should never be closed until this is fully achieved. In searching for a concealed or potential hemorrhage on completion of the operation a valuable step is to permit the patient to arouse slightly from his anesthetic state, at least sufficiently to cough or to strain slightly, whereupon any unligated vessel will promptly be discovered. Nitrous oxide and ethylene, and local, are the only anesthetics that permit this—strong arguments in their favor. Much has been said in advocacy of silk as a ligature material, one argument being that it decreases drainage. This, however, seems to be open to question. The material is satisfactory enough, but so is catgut. Some 13 years ago I performed 500 consecutive thyroidectomies in which silk was used, but no especial decrease in serum drainage from the wound was noted.

The question of drainage has as strong partisans as the one of division of the pretracheal muscles. A small "goiter tube" should be inserted to be removed on the third day. From time to time we have operated on a series of cases in which the no-drainage technic has been carried out, only to become more convinced that drainage has distinct advantages. Following removal of large, substernal, or intrathoracic goiters, it is well to place a light iodoform, or acraflavine, packing in the space from which these masses have been removed, thus greatly decreasing the possibility of postoperative oozing and rendering the large defect slightly antiseptic. This is desirable for following the removal of substernal goiter. No surgical wounds are more susceptible to infection than those produced in the neck and upper mediastinum.

I agree fully with Clute in his advocacy of the multi-step operation in certain cases. It is rare that one has to resort to it, but it is a life-saving procedure with certain types of extremely toxic goiter patients, and while it has been criticized,

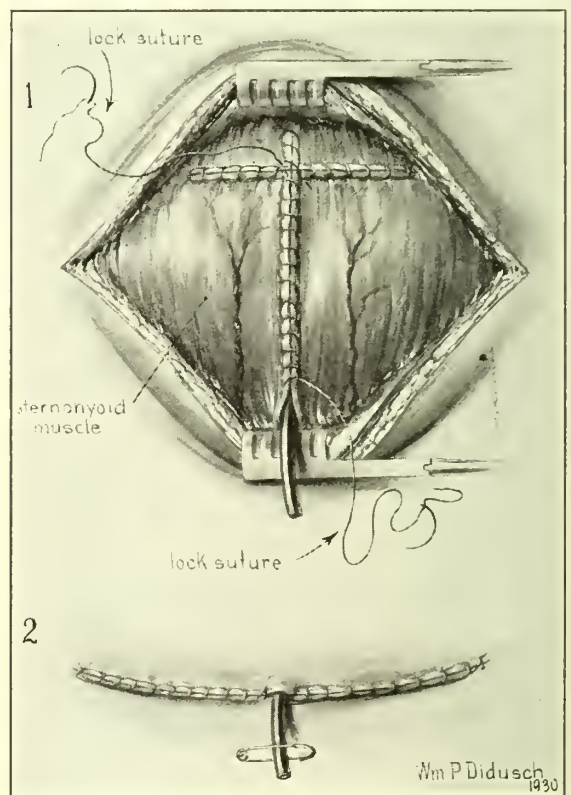


FIG. 7.—Closure of muscles transversely and vertically by means of running catgut suture. A small tube is inserted and allowed to remain in place for 24 hours. The incision is then closed with collodion silk "dermol."

it is, nevertheless, too valuable a procedure to be discarded.

In some resections the high frequency current—the "radio knife," was used. It works ex-

tremely well; ultimately it may supplant the scalpel. It is largely a matter of which one becomes accustomed to and of which one can handle the more skillfully. In closing the wound, a running, lock suture of celloidin, silk, or "dermol" has been found to bring about the most satisfactory closure with the production of the least conspicuous scar. In our clinic, subcuticular sutures, suturing of the platysma, and skin clips have long since been discarded.

Some of the refinements in the operation of thyroidectomy have been outlined, the application of which has been dearly learned over a period of years, during which more than 3000 operations on the gland have been performed at the Geisinger Memorial Hospital. No surgical procedure is capable of producing more brilliantly satisfactory results; in no other is there a greater possibility of serious complications, if technical errors are made.

Geisinger Memorial Hospital.

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ABSTRACT OF DISCUSSION

DONALD GUTHRIE (Sayre, Pa.): Dr. Foss has described a most refined technic for thyroidectomy and I agree heartily with him in everything that he has said.

I wish to lay emphasis upon the point he made when he advised a permanent operating room goiter team, for there is no type of work in which an emergency, should it occur, demands such prompt, efficient treatment by a well trained team. To illustrate, a few months ago I was in one of the large cities and saw an excellent surgeon performing an operation upon a hyperplastic gland with an apprehensive and poorly trained assistant, who became worried about a small amount of bleeding in the remnant of the gland. Dr. Foss would have tied off the bleeding points in a businesslike way and would not have allowed this amount of bleeding to have worried him. This nervous assistant began digging around in the nest of forceps, tore off several clamps, confusion began to reign, the blood began pouring out of the wound and the patient expired on the table.

We no longer cut the platysma muscle in turning the flaps for we believe the postoperative scars are much less adherent, disabling, and worrisome to the patient.

Like Dr. Foss, I prefer a controllable anesthetic, but I favor ethylene instead of nitrous oxide and oxygen. Patients who have been given ethylene may be awakened on the table, about as well as those who have been given nitrous oxide. With ethylene, the respiratory rate resembles that of normal sleep; there is no exaggeration of the respiratory rate (visitors are sometimes worried because the respirations are so extremely quiet) and there is no increased mucous secretion. This means that during the operation of thyroidectomy under ethylene any adventitious sound that arises comes from some unusual trauma to the trachea or to stretching of the nerve. We plan our attack in such a way that we try to proceed in any direction which will

permit perfectly quiet respirations and, if any adventitious sound is heard, we change the direction of the attack immediately and proceed in a way which is compatible with quiet respiration. The importance of safeguarding the trachea and nerve is well known for if the trachea is severely traumatized the patient will certainly have difficulties following operation.

Drainage should be used in every case.

CHARLES H. FRAZIER (Philadelphia): There are several things to suggest as a modification of what Dr. Foss has recommended. In certain cases avertin is exceedingly helpful. If the patient is nervous and apprehensive, a simple enema is given for 3 or 4 days prior to operation and on the day of operation when the enema is given the avertin is added. The patient drops off to sleep and is very happy in the afternoon when he realizes the operation is over.

In regard to hemostasis, we have been using electric coagulation for controlling bleeding in the smaller vessels. It is a most effective measure and saves both time and material. In 10 or 15 minutes with this coagulating unit we can secure perfect hemostasis and it is especially useful in the capsular margins close to the trachea. It is difficult to clamp these bleeding points with hemostats and apply ligatures. One has but to pick up one of these bleeding points with a mosquito forceps, touch the forceps for 2 seconds with the coagulating unit, and the bleeding is controlled.

We pay too little attention to the superior laryngeal nerve. My attention was first directed to it by Roeder, who described in detail in *Archives of Surgery*, April, 1932, the anatomic distribution and function of this nerve. Most of the patients' discomforts after thyroid operations, the accumulation of mucus in the throat, and the resulting cough, are due to damage of one or both branches of the superior laryngeal nerve. If you will study the minute anatomy of this region you will find that it is almost impossible to avoid injury to the external branch, and probably to the internal branch, by mass ligation of the superior pole. Therefore, we make the most meticulous dissection of the superior pole, divide the fascia overlying it, isolate the superior vein and artery, and ligate each separately. Only in this way can one avoid injuring one or both branches of the superior laryngeal nerve. We used to pass a hemostat under the posterior pole and ligate the pole en masse. I am sure we always damaged one branch and perhaps both branches of the nerve. The greater comfort of the patient if one pays attention to this detail is unquestionable.

According to the *U. S. Weekly*, new products containing concentrated amounts of vitamin A are attracting the attention of scientists of the Food and Drug Administration, Department of Agriculture.

Reed Walker, who has been assigned to special work for the Administration in order to protect the public against false claims for such products, points out that authoritative reports indicate that there is danger of overdosage of the vitamin when taken in such concentrated form.

Thus far there has been little success, says Mr. Walker, in commercial production of vitamin concentrates. Processes used have proved expensive.

Cod liver oil, one of the most common sources of vitamin A, is used as a measurement of the strength of the concentrates. It is claimed that one product has been developed to have 9200 times as much vitamin A as cod liver oil.

MATERNAL MORTALITY FROM HEMORRHAGE***Its Prevention in Pregnancy and Labor**

P. BROOKE BLAND, M.D., PHILADELPHIA

Pregnancy with its culmination in labor probably never will be entirely void of danger, but if it were not for three specific entities, the gravity as well as the mortality of human reproduction would be curtailed tremendously.

Septic infection, toxemia, and hemorrhage, in the order named, constitute the great lethal group and it is to these complications that nearly 75 per cent of the puerperal deaths are ascribed. This indicates that if the disorders designated could be prevented, childbearing would become a comparatively safe process.

Year in and year out the puerperal death rate in America as well as in all other countries remains lamentably high, with septic infection, intoxication, and hemorrhage presiding as the chief causative factors, and in spite of unremitting zeal the mortality from all three conditions goes surging onward at a fairly consistent pace. In America, the maternal deaths from 1915 to 1931, inclusive, totaled 144,293.

It is common knowledge that the death rate from septic infection has followed an uninterrupted course for the past two decades or more, and this observation applies also, with but slight variation, to pregnancy toxemia and to puerperal hemorrhage.

For example, the number of maternal deaths from sepsis, toxemia, and puerperal hemorrhage, in 1927, totaled 10,365. In 1928, there were recorded 11,287; in 1929, 11,078; in 1930, 10,990; and in 1931, 10,705. In other words, these 3 conditions account for approximately 24 maternal deaths daily, or one every hour throughout the 365 days of the year.

In the City of Philadelphia, septicemia, in 1932, accounted for 57.2 per cent of the maternal deaths prior to the twenty-eighth week of pregnancy, and for 25.7 per cent after the viable period. Toxemia was responsible for 25.8 per cent and hemorrhage for 16.9 per cent before and for 19.5 per cent after the period of viability.

In order to consider the prevention of maternal mortality from hemorrhage in pregnancy and labor in a comprehensive way, it is necessary to keep constantly in mind that fundamentally bleeding is a symptom, not a disease; and that its cause, therefore, always must be ascertained. Without locating its source and determining its cause, it is obvious that little can be accomplished in a preventive way.

To view the symptom from the standpoint of causation, it is incumbent to recall the wide range of conditions which may be accountable and further that these may become operative any time during pregnancy as well as during and following its termination in the process of labor. In other words, hemorrhage of threatening mien may arise any time during the antenatal and postnatal periods.

Because the conditions provocative of hemorrhage in the early antenatal period are so varied and because the clinical character is so vastly different from bleeding in the last half of pregnancy, it would seem wise to adopt and follow this division in discussing puerperal hemorrhage in general.

At the outset one may state with a reasonable degree of assurance that bleeding coming on during the first 5 lunar months of pregnancy, except as it is found in ectopic gestation or in hydatidiform mole, rarely results in a fatality. These 2 conditions account almost wholly for the maternal deaths from hemorrhage in the early part, or the first 5 months, of the antenatal period.

A study of the figures compiled by the Bureau of Vital Statistics, in Philadelphia, for 1932, showed that hemorrhage, including ectopic pregnancy, was responsible for 16.9 per cent of the maternal deaths prior to the twenty-eighth week of gestation, and that bleeding together with rupture of the uterus was accountable in 19.5 per cent after the twenty-eighth week.

While numerous conditions may give rise to bleeding during the early period of pregnancy, including, for instance, varicose veins of the cervix, cervical erosions, vaginal or cervical neoplasms (benign or malignant), and threatened or inevitable abortion, hemorrhage resulting from these conditions seldom assumes fatal proportions.

In the foregoing, no reference was made to a continuation of the periodic menstrual discharge because it is rarely seen and never expresses itself in more than a mild or irregular phase of the so-called normal process.

Bleeding, however, from threatened or inevitable abortion may at times reach an alarming stage, but rarely does it end disastrously. I can not recall a single death from hemorrhage caused by abortion. Septic infection and not hemorrhage is responsible for death following abortion in most instances.

I do not mean to imply, however, that bleeding

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

associated with abortion should be ignored or looked upon with a smug complacency. It may become so severe at times as to create considerable alarm.

In all cases of abortion, measures should be taken not only to control the bleeding with the view of trying to preserve the pregnancy itself, but to prevent the bleeding from reaching a threatening form.

As indicated, there are two conditions in the antenatal period which may give rise to the most perilous form of bleeding: Ectopic gestation and hydatidiform mole.

ECTOPIC PREGNANCY

The aggregate number of deaths resulting from pregnancy outside of the uterine cavity and hydatidiform mole is by no means small, and in this connection it may be well to point out that cystic degeneration of the villous processes of the placenta is far more common than formerly assumed, though it may be looked upon as a relatively infrequent complication. So in the main, it is hemorrhage arising from pregnancy not within, but outside the uterine cavity that is chiefly accountable for the large number of maternal deaths during the early antenatal period.

It is obviously not possible to determine definitely the number of intra-uterine pregnancies which occur in America each year, but the figures available indicate that the total number reaches or exceeds three millions.

Data compiled by the Division of Vital Statistics of the Bureau of the Census show that annually more than 2,200,000 pregnancies continue to full term. In an enormous number, totaling, according to Taussig, over 700,000, the embryo perishes prematurely or is surreptitiously destroyed and expelled.

Besides the foregoing, there is annually a vast number of other fertilized ova, conservatively estimated at 10,000 or more, that never reach the interior of the uterus.

After fertilization takes place in the ampullar portion of the fallopian tube, the onward flight of the impregnated ovum towards the uterine cavity is arrested by an insuperable barrier and the pregnancy is forced to develop as best it can in this unnatural environment. This soon becomes inadequate and leads inevitably to one of two events, either rupture through the wall of the tube, or expulsion through its abdominal end. No other condition arising in the organs of reproduction is capable of exciting more alarm or may become more tragic in its mode of termination.

In spite of the most favorable circumstances, a normal intra-uterine pregnancy with its con-

summation in labor is not without danger. In Philadelphia, during the year 1931, there were 33,773 live births, with 203 maternal deaths, a mortality of approximately 6 per 1000.

Pregnancy outside the cavity of the uterus is far more deadly and carries a mortality rate of not less than 5 per cent. It is 10 times more fatal than labor at term and more than 600 women die from it each year, in our country.

It is difficult to conceive that in America almost every day throughout the year, nearly two women succumb to a condition so outspoken in its clinical behavior and so readily amenable to proper treatment. In view of the nature of the condition, with its rather clear cut clinical picture, the death rate from the complication seems appallingly high. It is considerably higher than it should be.

While it must be admitted freely that a few cases, especially those designated as the cornual or interstitial type, may escape the most scrutinizing study, it is generally conceded that most cases, so far as fatal hemorrhage is concerned, could be placed in the category of prevention.

Recent investigation has shown that the majority of the deaths resulting from extra-uterine pregnancy are wholly unnecessary and are due to errors in diagnosis and to tardy combined with faulty treatment. With respect to the former, it may be stated that a mistake in diagnosis should rarely be made. No other condition, except intra-uterine pregnancy itself, is accompanied by such a long train of characteristic symptoms and signs.

With a history of menstrual irregularity together with slight uterine enlargement, and a movable, almost tenderless, pulsating, oval mass lateral to the uterine body, the diagnosis becomes transparently clear. With rupture or abortion of the pregnant tube, the antecedent history linked with the immediate alarming symptoms, a vivid clinical portrait is presented.

If in spite of the clinical picture, so clearly drawn, there still remains a diagnostic doubt, confirmation is readily afforded through an incision in the posterior vaginal fornix. This releases at once a quantity of accumulated blood in the dependent retro-uterine pouch.

With the condition recognized before, during, or after rupture, the indications for treatment are plain. A pregnancy outside of the cavity of the womb is essentially a surgical condition; and the only treatment worthy of consideration, from the standpoint of prevention of maternal mortality, is the immediate removal of the affected tube through an abdominal incision.

Since recent studies have disclosed that a certain number of ectopic deaths in Philadelphia,

as elsewhere throughout our country, have resulted from inadequate postoperative care, especially with respect to the administration of restorative measures, such as stimulation, hypodermoclysis, and blood transfusion, it becomes plain that these agencies must always be included in the preventive therapeutic plan.

HYDATIDIFORM MOLE

During the process of expulsion, hydatidiform mole is sometimes associated with the most violent form of hemorrhage, and, except for its destructive sequel, chorion epithelionia, is the chief cause of death.

With the diagnosis of hydatidiform mole established, no policy save active interference with prompt removal of the mole can be looked upon in the light of preventive therapy. A passive attitude here, as elsewhere in the face of grave bleeding, will inevitably lead to still more serious trouble, often with the life of the patient hanging in the balance. Hemorrhage of whatever sort is not amenable to a procrastinating policy.

Though bleeding caused by conditions of a minor nature, including those enumerated in the first 5 months of pregnancy, may become operative in the last 5 months, there are found during this time 2 conditions which contribute especially to a long line of fatalities.

These are, first, bleeding from abnormal implantation, in whole or in part, of the placenta in the lower uterine segment—placenta previa—and, second, bleeding from the premature separation of the normally implanted placenta in the upper uterine segment.

PLACENTA PREVIA

In the consideration of placenta previa, certain of its clinical characteristics must be remembered, and one must recall, particularly, that with the fetus occupying an abnormal position, placenta previa should always be considered.

With the placenta anchored in part or in whole in the lower uterine segment, in other words, in advance of the child, the lie of the latter is abnormal in almost 50 per cent of the cases, exemplifying the common physical law that 2 objects can not occupy the same space at the same time.

With a placenta anchored in the lower uterine segment, bleeding of the gravest type is, figuratively speaking, only waiting around the corner, and will inevitably follow. This may assume, as in the central variety, for example, the most profuse type and rapidly prove fatal to both the expectant mother and child.

Since there is no way of foretelling how grave

the hemorrhage may become, it is clear that the prevention of maternal mortality does not lie in a passive attitude, a course of waiting and watching to see what will happen.

From its very beginning, placenta previa is a surgical emergency and it should be so treated. Just so long as the placenta, partly attached and partly detached, is allowed to hang over or about the internal os, just so long will the bleeding not only continue but will tend to grow rapidly and threateningly in volume.

With the diagnosis established, the best plan of prevention lies in removing the placenta forthwith.

Both in primigravidae and multiparous patients, prior to the onset of uterine contractions, and with the cervix long, thick, unyielding, and undilated, this is best accomplished by cesarean section.

With patients active in labor, the cervix widely dilated, and a presenting part accessible—other things being favorable—delivery may be brought about by forceps or version with extraction.

In no instance should meddlesome manipulation, as for instance packing or plugging the cervix with the fetal buttock, or any other temporary expedient, be practiced.

As a means of further preventing maternal mortality, delivery must be followed by active supportive measures, as stimulation, the application of warmth, the administration of saline solution hypodermically or intravenously, and the infusion of whole blood, as pointed out by Bill and other observers, before, during, or immediately after emptying the uterus. Further loss of blood should, also, be prevented by irrigating the uterine cavity with hot saline solution and by distending it firmly with sterile gauze.

PREMATURE SEPARATION OF THE PLACENTA

Hemorrhage resulting from premature separation of the placenta is in a way far more amenable to preventive therapeutics than is placenta previa. In the latter the only clinical symptoms signaling its possible presence are, first, an abnormal fetal lie and, second, a uterine bruit in the region of the symphysis pubis. In most instances, it will be observed, therefore, that placenta previa is not associated with conspicuous premonitory signs.

Premature separation of the placenta, on the other hand, announces its approach with a rather outspoken clinical picture in most instances. In the first place, its etiologic background is altogether different, and though numerous causes, such as trauma, inflammatory lesions of the endometrium, multiparity and neoplasms, have been mentioned, it is now generally conceded

that either nephritic or preëclampsic toxemia is culpable in nearly all cases.

The prevention of maternal mortality from premature separation of the placenta resolves itself largely in the prevention of the conditions that may lead to the complication.

Nephritis or nephritic intoxication complicating pregnancy must be treated, as recently emphasized by Stander and others, in a more active way. By adopting this course, the incidence of grave hemorrhage from premature separation would be diminished greatly.

Because preëclampsia is fairly responsive to recognized antenatal means, premature separation from this source can, also, be reduced enormously. In the face of hemorrhage arising from premature separation of the placenta, however, one should follow precisely the same plan of preventive therapy as outlined under the treatment of placenta previa, namely, abdominal delivery in those patients with the cervix tightly contracted, and delivery from below in those, especially multiparæ, with the cervix widely dilated.

In addition, it is incumbent to point out that it may occasionally be necessary, as an additional means of prevention, to remove the uterus. This course is especially indicated if the uterine muscle fibers—the living ligatures—are infiltrated and separated with blood, preventing thereby contraction with retraction of the uterine body.

POSTPARTUM HEMORRHAGE

To pass on to hemorrhage arising immediately postpartum—for I shall consider the primary form only—it is pertinent to mention that this may be either an expression of uterine fatigue or an indication of trauma; hence the division into atonic and traumatic postpartum bleeding.

Fortunately, true organic postpartum hemorrhage is not often encountered. In nearly every instance this type proves rapidly fatal and it is probably due to some anomalous arrangement of the uterine vascular system itself. Because of its exceedingly violent character, nothing, or very little, at least, can be done in a preventive way.

Postpartum hemorrhage of the atonic type, as ordinarily met with, is by no means infrequent, and since, in most instances, it results, as the term implies, from exhaustion of the uterine body, it is largely amenable to prevention. In so-called normal labor, measures of prevention are found in providing sustenance and rest particularly during the tormenting first stage and curtailing a fatiguing second stage by proper operative interference.

With evidence of frank disproportion discovered during the later weeks of antenatal life, uterine exhaustion with its sequel, hemorrhage, should naturally be prevented by elective operative delivery.

Because clumsy or hasty management of the third stage of labor is sometimes provocative of serious postpartum bleeding, it is obvious, likewise, that this type falls largely in the realm of prevention. Under no circumstances should efforts be made to extract or expel the placenta until the tired uterine wall fully reacts from its efforts to expel the fetus itself. This is not measured by time, or as is frequently taught, in 15, 20, or 30 minutes. It is determined by the condition of the uterine musculature.

In all cases, activity of the uterine muscle fibers should be encouraged by the administration of 5 minims of pituitrin, hypodermically, immediately after the conclusion of the second stage of labor. Any tendency towards relaxation with bleeding, moreover, should be combated by repeating the pituitrin combined with 1 c. c. of aseptic ergot after the expulsion of the placenta.

This course we personally follow in our clinic and we have observed quite a marked reduction in the so-called normal blood loss; also, we have curtailed to a tremendous extent the incidence of the milder types of postpartum bleeding.

The preventive rôle played in maintaining the uterus contracted and retracted by the administration of oxytocics, manual manipulation, adequate rest, and a properly fitting binder, is so well known that a detailed discussion of their use at this time is wholly unnecessary.

Finally, something should be said with respect to so-called atonic postpartum hemorrhage resulting from the retention of a portion of a normal or an accessory section of an abnormal placenta.

Careful inspection of the placenta after its expulsion will reveal the defect and in order to prevent serious bleeding, steps should be taken forthwith to remove the missing portion. As further preventive measures in atonic postpartum hemorrhage, the value of the hot intra-uterine douche followed by firmly packing the cavity with sterile gauze must be kept in mind.

Hemorrhage arising postpartum, with the uterine cavity free of foreign material and the wall firmly contracted, should lead one immediately to look upon the bleeding as traumatic in origin.

Blood escaping from the birth canal with the uterus flaccid and listless indicates that this organ itself is in default. Blood pouring from the genital canal with the uterine body snugly con-

tracted and retracted almost invariably points to trauma in the cervix or elsewhere.

This form, in the face of a straightforward normal delivery, should seldom occur. A faulty manual or instrumental delivery, on the other hand, may inflict the gravest sort of damage to the uterine body, the cervix or the vaginal walls, and bleeding of a serious variety may follow. Manual or instrumental delivery, therefore, must be carried out with the utmost delicacy, with the view of inflicting only the slightest trauma, or better still no trauma at all.

With damage sustained, bleeding will supervene immediately. Its prevention rests in securing the open vessel or vessels with ligature or suture, or in bringing in firm apposition at once, by suture, all oozing or freely bleeding surfaces.

In all cases of postpartum hemorrhage, moderate or severe, the prevention of maternal mortality is further controlled not by a passive atti-

tude, but by active stimulation, the application of heat, the administration of saline or other solutions and by the direct transfusion of 500 c. c. or more of whole blood.

In a series of studies conducted in some of our large cities, with reference to the causes of maternal mortality from hemorrhage, it was found that in numerous instances proper restorative agencies, such as have been enumerated, were not brought to bear after the bleeding was controlled. Failure to institute these measures, it is believed, accounted for a certain number of maternal deaths.

The prevention of maternal mortality from hemorrhage in pregnancy and in labor, of whatever type, resides chiefly in preventing or correcting the conditions etiologically responsible, the conditions leading to hemorrhage.

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TREATMENT OF ANEMIA*

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Treatment of anemia has for its object the restoration of blood to an approximate normal and keeping it at that level. It is well at the outset that we should keep in mind some closely related facts. *First*, anemia is a common disorder. Mackay, in a 5-year study of large groups of London infants, found that 42 per cent of breast-fed and 70 per cent of artificially fed, followed by her, were anemic. A survey of 750 infants and children in Madison, Wisconsin, showed a sharply lowered hemoglobin curve lasting to the fifth year of life. Although from these two sources it is not possible to picture a cross-section of infant population, it is entirely probable that this type of anemia is equally common elsewhere. *Second*, it is known that certain factors favor the development of anemia. Prematurity, weight at birth, and rate of growth, all exert a definite influence. *Third*, it is largely amenable to treatment.

With a malady apparently so widespread our first thought is prevention. Administration of iron to the expectant mother, even in large doses for long periods, will not prevent anemia in her infant. Nor should prophylaxis be expected from giving the infant orange juice, cod liver oil, fresh air, and sunshine. These are of value only as they supply needed vitamins. True, anemia of severe degree may accompany certain vitamin deficiencies, scurvy, for example. Orange juice, though preventing and curing scurvy, is value-

less as a means of restoring depleted hemoglobin. Cod liver oil is a useful antirachitic but it will not cure anemia. Iron has long been recognized as a sovereign remedy for anemia. In the past few years copper has occupied the limelight and much has been said of its efficacy as an adjunct to iron. In 1928, Hart, Steenbock, Waddell, and Elvehjem demonstrated that a *pure* iron salt alone will not restore depleted hemoglobin in the rat, but with the addition of small amounts of copper to the iron this was readily accomplished. Other investigators are agreed that certain amounts of copper are essential for the production of hemoglobin. Copper does not cause iron assimilation. It has been shown that in the presence of anemia inorganic iron preparations are assimilated and stored both in liver and in spleen. This stored iron is useless and cannot be used for hemoglobin production until a certain amount of copper is supplied. Copper is the element needed for the manufacture of hemoglobin and if enough is present the iron stored in the body is drawn upon and constructed into hemoglobin. Since practically all the iron preparations in medical use are contaminated by copper, we have for years unwittingly been giving our patients this needed additional element in small amounts.

Several considerations should influence us in the choice of iron salt to be used: It should be efficient; it should be easily given; it should be palatable (or at least not unpalatable); and it should be well tolerated. Iron and ammonium

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citrate possess these qualifications. It is readily soluble, may be given in the infant's milk and is not likely to cause disturbance. It should be given in small amounts at first, slowly increasing as taste and tolerance are established. With prematurity and low birth weight particularly favoring the development of anemia, all infants in these groups should be started early (at 2 to 4 weeks) and treatment should be continued regularly to at least the end of the first year. This course should be followed with breast-fed and bottle-fed infants alike. Iron will not prevent the great initial drop in hemoglobin, no matter how early it is begun. It has been shown (Mackay), however, that its early administration, though not rapidly increasing hemoglobin, causes an appreciable increase in weight, as compared with control infants who received iron at a much later period. Reduced iron has given satisfactory results in our hands, but at times the results have been disappointing. Reimann and Fritsch believe that this preparation owes its anti-anemic effect to the formation of ferrous chloride produced by the action of hydrochloric acid in the stomach. Even normal infants and children average lower acid content than adults. Infants with anemia, or some other pathologic condition, have hypo-acidity or even anacidity. This lack may explain the inconstant results seen at times from the use of this product. In using reduced iron, therefore, it is probably advisable to give with it small doses of dilute hydrochloric acid. Reduced iron is insoluble in neutral fluids but dissolves in dilute acids and forms saline combinations. Dosage should not be a matter of arbitrary opinion. There are divergent views, any one of which may be correct in certain cases. A considerable number of physicians believe that in order to obtain maximum iron storage large amounts must be given, since only a fraction of the amount taken is retained. Others believe that only small amounts of iron are assimilated and stored and that it is futile to give large amounts, since they are largely wasted. If we only knew what proportion of a given amount is actually assimilated and stored, dosage would be more uniform. The average infant and young child will tolerate from 10 to 20 grains of iron and ammonium citrate daily, in most instances. Some have reported giving as much as several grams of reduced iron in a 24-hour period. Tolerance is perhaps a safe guide. With signs of gastric or intestinal upset it should be temporarily stopped or the amount reduced.

The rate of response to iron depends upon several factors.

(1) *Presence of infection.*—It has long been recognized that anemia in the presence of infec-

tion is difficult or impossible to cure. Slight infections, of short duration, do little harm, but when an infection itself causes anemia, it must be attacked and cured before iron or other therapy can be very effectual. Anemia associated with such infections as otitis media, chronically infected tonsils, chronic adenitis, pyuria, or tuberculous abscess will show little, if any, response to iron treatment. Infections must be at least alleviated before appreciable blood regeneration will occur. The use of so-called tonics or anti-anemics of any description under such conditions usually may be likened to pouring water through the proverbial sieve. Not only should infections be cured before much improvement is looked for, but every effort should be made to prevent infection. Mackay has shown anemia lowers resistance and that infections in anemic children are almost double those in well children. As a result of infection, anemia is accentuated, so that a vicious circle many times is brought about.

(2) *Amount of iron shortage.*—When hemoglobin has reached abnormally low levels, a considerable period of time is often noted before marked improvement follows. Results are not to be expected quickly. Continuous treatment for at least several months should be the rule. At times it may be advisable to change the preparation to another iron salt, or to increase the amount. The addition of copper to iron salts seems to accelerate the rise in hemoglobin. Josephs¹ found "this acceleration was most evident when the hemoglobin was above 50, for above this point the hemoglobin curves from cases on iron alone tended somewhat to flatten out, whereas those from cases on iron and copper continued to rise steeply up to about 70 per cent." Prophylactic treatment should be started at 6 to 8 weeks, or earlier with prematures or those of small birth weight. All prophylactic treatment should be begun cautiously, using small doses at first and gradually increasing as tolerance is established. The same iron salts may be given as curative agents but larger doses should be used with older children. Regardless of the preparation used it should be employed over a minimal period of several months. Failures may be attributed to several factors: Inadequate dosage, insufficient time, and intercurrent infection. If improvement seems to be at a standstill, the addition of copper will often be of value. Occasionally there will be but little response during the first month, with rapid increase later.

EFFECT OF DIET

Josephs¹ attributed the beneficial effects in his cases to iron alone or with copper added, rather

than to diet. He felt "there was no demonstrable difference in the rate of recovery between those receiving milk alone and those receiving general diets." Anemia is not alone a question of diet. The infant develops anemia more frequently than the adult for several reasons:

(1) The reserve iron is more rapidly depleted when rapid growth occurs. This may be an indirect result.

(2) The hematopoietic system probably does not function as well as in later months and years.

(3) Infants are more liable to infection than adults, and it has been shown the part played thereby.

(4) The early diet is essentially an anemia-producing diet. Milk alone will cause anemia in young rats in a period of six weeks.

At times several causes may operate coincidentally. Obviously it is not feasible to give the young infant sufficient amounts of foods which are highest in iron and copper content to afford protection. Many children drink too much milk to the exclusion of other equally necessary foods. With such, it is advisable to reduce milk and give larger amounts of other substances. A diet of vegetable purées, sieved fruits, cottage cheese, well-ripened banana, eggs, and finely scraped beef will offer suitable amounts of iron in the organic state. With anemia present it is questionable if cure can be accomplished through diet alone. At best it is slow and tedious. With iron or other suitable hematic, response is usually prompt. An inorganic iron salt is vastly more to be depended upon than any diet which we can devise. Even granted that diet alone will in time cure anemia, these children usually have such capricious and fickle appetites that it seems impossible to administer enough food to accomplish our purpose. What has been said should in no way be construed as an argument for restricted feeding. At all times there should be given sufficient food to maintain good health.

Treatment of the rarer and unusual types of anemia is so unsatisfactory that these types will be mentioned briefly. We have observed 5 children with erythroblastic anemia over a period of about 4 years. Four have had splenectomy and many blood transfusions. All we can say is they have been kept alive, with many ups and downs. They seem comfortable but are far from well. Splenectomy and transfusions have brought temporary improvement at times but we are not cheerful about the outcome. Though splenectomy seems to prolong life it increases the production of immature cells in the blood. The behavior of one of the children has even raised doubts in our minds as to the benefit from transfusion in this condition. Many transfusions were given him in the first 2 years of observation, with only transitory improvement. During the past 2 years he has had no transfusions and

he is apparently just as well as several others who, in the meantime, have been transfused many times. Iron, copper, and liver possess no value in erythroblastic and sickle-cell anemia. Anemia accompanying certain other disorders, such as the leukemias, is only a part of the trouble and is not amenable to any known treatment.

LIVER THERAPY

The reports of beneficial effects from liver in pernicious anemia brought a widespread use of liver, all over the country, in anemia of all types. It is well to bear in mind that those who conducted this work made no claims as to its value except in pernicious anemia. Since that time liver extracts of various types have been produced. Our own experience with liver extract has been limited. A series of 22 children in the Children's Hospital of Pittsburgh were given a whole liver extract prepared in the hospital. Most of these children suffered from some infection. Despite this, some improvement was observed.

BLOOD TRANSFUSION

There is yet another method in the treatment of anemia in infancy and childhood which is outstanding in its benefits—blood transfusion. In the pale, chronically undernourished infant, much below normal weight, marked and permanent improvement is frequently seen following one or more transfusions. By a single procedure it is often possible in these children to raise hemoglobin to a higher level than can be accomplished by weeks or months of dietary care, iron or other therapy. Many times hemoglobin readings of 25 or lower are seen. Such children are ill and unless prompt measures are taken some of them will succumb. When such a low state has been reached, diet and drug therapy often seems useless or results are discouragingly slow. We have learned that long periods of hospital care are costly and unless there is close coöperation in home treatment results are disappointing. In these infants, by a single stroke, greater improvement will be brought about than from prolonged drug administration and dietary care. Transfusion thus becomes an economic measure of first importance, to say nothing of its ability to lower both morbidity and mortality. With such children it is capable of bringing a transformation which may be permanent. Transfusion is of outstanding value in the acute and severe anemias of the newborn. The decrease, or actual paralysis, of blood formation in the hemolytic types of anemia of the newborn makes prompt supportive measures an imperative matter. Transfusion of whole blood or injection of human blood serum in repeated doses, at times

will tide the infant over until his own regenerative processes begin to function. In such conditions neither iron nor other therapy has been of value.

CONCLUSIONS

1. Anemia is a widespread malady of infancy and childhood.
2. Anemic infants and children are much more susceptible to infection than those with normal blood.
3. Its effects are preventable and curable

through the early and prolonged use of suitable iron salts, or iron and copper.

4. There is no curative treatment for the more unusual types, such as erythroblastic and sickle cell anemia.

5. Transfusion, in suitable cases, brings results quickly, shortens the period of treatment, and at times definitely saves lives.

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OTITIS EXTERNA*

ROBERT J. HUNTER, M.D., PHILADELPHIA

The title, "otitis externa," is a rather loose expression under which to group the diseases which we shall discuss briefly. "Some affections of the external auditory canal" would have been a better title because frank otitis is not present in each disease. This topic was selected because, through the greater importance of diseases of the middle or internal ear, diseases of the external ear are less frequently discussed, although they are very interesting from the standpoint of differential diagnosis. Dr. N. Arthur Fischer mentioned one of them at the annual meeting of this society in 1932. The diseases of the external canal will not be completely covered.

One group of these diseases includes: Herpes oticus, herpes zoster oticus, herpes zoster auricularis, Hunt's syndrome, myringitis bullosa, influenzal otitis externa, and hemorrhagic otitis externa. It is possible that we are dealing with two or more diseases under the above titles, although they may be different manifestations of the same infection. Ramsay Hunt first centered the attention of the otologists on the herpetic conditions in a paper in which he contended that the facial nerve was similar to the spinal nerves in the fact that it has both a sensory and a motor root. The sensory root composed of fibers from the pars intermedia of Wrisberg centers at the geniculate ganglion. In support of this theory he reported cases of facial palsy associated with herpes on the posterior wall of the external canal. Since that time this condition has been known as Hunt's syndrome and frequently it has been accepted as evidence of inflammation of the geniculate ganglion. In a subsequent paper he pointed out that herpes zoster oticus could also be due to an acute posterior poliomyelitis involving the ganglia of the auditory, the glossopharyngeal, and the pneumogastric nerves, either singly

or together. I have seen but few cases of Hunt's syndrome, but I have frequently seen cases of herpes oticus which might be the same infection without facial paralysis. Since coming to this conclusion, also noted by Hunt, I have been interested to find that Aitken and Brain¹ have written a paper contending that certain cases of facial palsy without herpes are due to the same infection. They say: "Direct evidence that herpes zoster is due to a filtrable virus has not yet been produced, although it is usually considered to be so. . . . It is inferred from failure of efforts to find a cultivable bacterium in the fluid of early vesicles and from the presence of nuclear inclusions similar to those produced by the virus of herpes facialis." Using a diluted zoster vesicle fluid as an antigen, after the technic of Bedson and Bland they were able to test the blood of 22 cases of facial palsy with no evidence of eruption around the ear and get a positive herpes zoster complement fixation test in four cases. By the use of this test in cases of herpes oticus it should be possible to find whether all the cases with blebs on the ear drum or canal are of the zoster type and also whether certain cases do not respond and should be properly described under another title such as myringitis bullosa or influenzal otitis.

At the onset herpes oticus is usually acute, with fever, malaise, and at times acute rhinitis or bronchitis. There is an intense boring pain in the ear. The pain is not throbbing as in otitis media and deep pressure over the mastoid does not increase it. In a recent case it was quite evident that the skin itself was very sensitive to touch over the auricle and mastoid. The pain may radiate to the jaw or supra-orbital region. In my experience the pain has preceded the appearance of the bleb by a short interval, but E. Watson Williams quotes cases in which there was pain for three, four and six days before the

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

eruption. This type of pain is significant and indicates that such cases may be of the herpes zoster type. Deafness, nausea, and vertigo are common. Hyperacusis has been reported. Examination of the ear reveals the blebs on the drum or canal wall. Frequently they spread from the drum to the canal wall. Sometimes they are ordinary vesicles but in the so-called influenzal or in the hemorrhagic type, the vesicles are filled with bloody serum, such as is sometimes seen in herpes facialis. Cultures that I have had taken from the influenzal type have usually shown the streptococcus. In the future I should like to have some complement fixation tests made to determine whether or not these are really due to the streptococcus or to a filtrable virus. With the appearance of the blebs, the pain subsides but usually continues for some days, frequently a week. It is very important that we should not do a paracentesis as the infection would be carried into the middle ear. The blebs, however, may be incised superficially with considerable relief. We see some cases in which the drum perforates and ordinary otitis media ensues. We should always inquire about exposure to varicella in these cases, as a relation between herpes zoster and varicella has been demonstrated. In one case of herpes zoster, varicella developed eleven days afterward in the same ward. In myringitis bullosa, influenzal otitis externa, and hemorrhagic otitis externa the neuritic symptoms are not conspicuous. According to textbooks, these are usually attributed to an acute bacterial infection.

It has been my fortune to observe some of these cases from their very beginning. In one patient, a female, age 59, the ear was examined on account of pain. Examination showed an entirely normal ear drum, both in position and color, with the exception of a minute area with the slightest pinkish blush in the lower quadrant. This abnormality was so slight that when the patient reported she had picked the ear with a hairpin this might have been considered the cause of her discomfort except that the pain was too intense for such a mild lesion. The patient had a slight fever for 2 days and well marked malaise. Within 2 hours the indefinite pink area in the lower quadrant had become well reddened. Within another 2 hours the drum was bright red in the lower quadrant and the adjoining external canal, while Shrapnell's membrane was still normal in appearance. Shortly afterward a bleb filled with bright red blood appeared in the lower posterior quadrant. It rapidly spread to the adjoining canal wall and within 24 hours from the beginning of the disease it was accompanied by 2 or 3 smaller blebs. With the

formation of the blebs the acute pain in this case subsided so that we did not prick them. Twenty-four hours after the first ear had become fully involved pain was complained of in the opposite side. Inspection revealed an absolutely normal drum. No sign of any inflammatory condition could be seen. Within a few hours this ear went through similar stages to those described. The pain increased, some pinkness appeared, shortly becoming brilliant red. Blebs soon appeared and in this instance within 18 hours of the examination revealing a normal drum, a fully developed bleb was found. The pain, although not so acute after the blebs were fully formed, continued for 4 or 5 days and gradually subsided. The middle ear was never involved. During convalescence any movement of the head or jaws was heard as an exaggerated sound in the ears, greatly annoying the patient. One week after the acute ear symptoms subsided the patient had a severe attack of follicular tonsillitis, a chill, and temperature of 104° F. Culture from the throat revealed streptococcus hemolyticus. General treatment usually advised is: Sodium salicylate, belladonna, alkaline drugs, and codeine or morphine for the severe pain and the barbituric acid group for less severe pain and as hypnotics. The local treatment consists in pricking the blebs in cases in which the tension seems to be great and the application of local asepsis. As a rule the dry treatment with boric acid powder following cleansing is better than wet treatment which tends to macerate the drum. It is very important to distinguish these cases from otitis media and avoid a paracentesis which would only carry infection into the middle ear. A diagnosis is made on the location of the blebs and upon observation that the blebs are projecting from the surface of the drum which is not itself displaced. If the drum membrane is bulging in addition to the blebs on its surface, it may be necessary to do a paracentesis to relieve the pressure in the middle ear, but this should never be done in cases which are uncomplicated external otitis.

Another group of diseases of the external canal includes seborrheic dermatitis and mycotic disease of the external canal. Recognition of these and proper treatment will give the patient great comfort and the doctor great credit where others have failed. The first symptom of seborrheic dermatitis is itching of the external canal. Usually nothing whatever may be seen in the canal although the malleolar plexus may be injected and pink, if the patient has scratched it just before examination. In more advanced cases a slight desquamation of the epithelium is seen and at times a small hemorrhagic spot on

the drum, if the patient has scratched it with a hairpin or toothpick. More acute cases may be accompanied by a slight exudation of serum. This is not enough to flow out but keeps the canal moist. This exudate may develop a foul odor. These cases are practically always accompanied by seborrheic dermatitis of the scalp. The patient scratches the head and then the ear and constantly reinfects it. Therefore, we must question these patients about the presence of dandruff and itching of the scalp and see that they get appropriate treatment or the ear will not clear up. The most common cause is said to be the *Pityrosporum* found in dandruff. If the scratching has continued for some time, a definite inflammation of the canal results. This is usually due to secondary infection with *staphylococcus albus* which may in turn result in furunculosis. If the skin becomes sensitized, eczema of the canal and pinna may result. Repeated attacks lead to a lymphangitis with thickening of the canal wall until only a small orifice may remain. In several of the cases which I have seen, a streptococcus has been the infecting agent and at times when the infection became acute, a cellulitis or even erysipelas has developed. In my experience this has been mild, because the disease in the canal has usually been of long standing, resulting in partial immunity to the streptococcus.

A more acute inflammation of the canal, said to be mycotic, is often seen in summer time, frequently after bathing. The patient presents himself with "a running ear" and if the condition is acute the external layers of the drum may be thickened, pink, and bathed in pus and it is sometimes difficult to distinguish these cases from acute purulent otitis media. The pain is seldom intense and is not throbbing. There is no pronounced bulging or perforation of the drum. Itching and burning are especially prominent symptoms, together with the characteristic fetid odor of the discharge, which is entirely different from that in chronic purulent otitis media and which is usually absent in acute purulent otitis media. It should be made a practice to inquire about the presence of epidermophytosis of other parts of the body in the history. Although I have repeatedly sent scrapings to the laboratory, the reports were negative for the *Epidermophyton*. Cultures usually come back positive for *staphylococcus albus*. The usual laboratory is not equipped to give a report on mycotic disease. Sabourraud's agar should be used and the culture kept several weeks. Great relief to these conditions will be given by the local application of resorcin in alcohol (50 per cent) or salicylic acid and benzoic acid in alcohol (50

per cent) sometimes followed by the insufflation of boric acid powder. A few applications of these have frequently cured patients thought to have an acute purulent otitis media. A very soothing remedy that may be given to the patient to use at home is 15 grains of resorcin in $\frac{1}{2}$ ounce each of alcohol and camphor water to be dropped in the ear. The above conditions tend to recur if not thoroughly treated for a long time after the symptoms subside and few patients persist in the treatment. These patients should be advised that the condition is very apt to recur. The complications of eczema, furunculosis, and erysipelas require appropriate treatment.

A condition that is really not an otitis externa but which has been diagnosed as either furunculosis or purulent otitis media, is the condition produced by a cervical abscess which ruptures into the external auditory canal. The diagnosis is simple if one is alert to the conditions present. In abscesses around the angle of the jaw, in the parotid gland, or the pharyngomaxillary fossa, the pus frequently ruptures through the fissure of Santorini, producing a profuse discharge of pus from the ear without involving the middle ear. A careful examination of the canal reveals the point of rupture. The drum is usually slightly involved through its proximity to the wound. The mastoid process itself is not tender on palpation, but the area beneath the tip is exquisitely painful. If the canal is wiped out and the digastric fossa or angle of the jaw is pressed on, pus is seen to exude. The roentgenogram shows that the bone is not involved. Early evacuation of the abscess, before the great vessels of the neck become involved, is essential. Furunculosis of the canal with rupture can easily be diagnosed from this condition except in very extensive cases in which careful consideration of the history, progress of the case, and the evident involvement of the deeper structures of the neck will be borne in mind.

Certain conditions of the external canal are frequently incorrectly diagnosed as middle ear disease leading to unnecessary paracentesis of the drum. They are myringitis bullosa and herpes of the drum and canal, mycotic involvement of the canal, and rupture of abscess through the fissure of Santorini.

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ABSTRACT OF DISCUSSION

GEORGE B. WOOD (Philadelphia): In my own experience, Hunt's syndrome is a rather rare condition. All of us see ordinary herpes of the external auditory canal

and auricle, but the association of facial paralysis with a herpetic condition of the canal might escape us if we do not bear in mind the actuality of this condition originally described by Hunt.

Herpes zoster, originating from some of the upper branches of the cervical plexus, may give rise to associated head pains. I have recently seen a patient in whom apparently the great auricular nerve was involved and with this eruption of the scalp over the occiput were intense headache, pain in the ear and side of the face. The pain in the face was such as to lead to an extensive examination of the sinus and a careful examination of the ear; both examinations were negative and it was only the accidental discovery of the eruption in the scalp that led to a correct diagnosis.

In cases of seborrheic dermatitis of the external auditory canal, the discharge may be of sufficient quantity to simulate an otitis media. The associated dermatitis not only on the canal wall, but also on the tympanic membrane at times makes a differential diagnosis difficult. The differential diagnosis between herpes zoster, myringitis bullosa, and the hemorrhagic blebs that occur in influenza (frequently seen during the World War) is usually not difficult, but there may arise individual cases in which the complement fixation test, as suggested by Dr. Hunt, may be of distinct value. It is more difficult to distinguish between myringitis with blebs from a true otitis than from a herpetic condition.

That the external auditory canal may be the exit for abscesses outside of the ear or its appendages is undoubted. One of the oddities that I have seen was a case of quinsy occurring in a child. I had failed to open the supratonsillar collection, as had several other doctors, and advised the hospital and a general anesthetic. During the night a profuse discharge developed from the ear and when I saw the child next day pressure on the throat produced a pouring out of pus from the ear and when the peritonsillar abscess was successfully evacuated, the aural discharge ceased. The rupture was through the anterior canal wall.

I had hoped Dr. Hunter would say something more about furunculosis, especially those cases accompanied with suppuration of the mastoid lymph nodes in which the diagnostic exclusion of a mastoid involvement is difficult, yet absolutely essential.

ABRAM H. PERSKY (Philadelphia): Perhaps one may stress the point that the focus of infection should always be sought. Whether this focus be in the tonsils, teeth, or other apparent sites, this should be eradicated as early as possible.

As to treatment, the infra-red ray is of signal value. If the vesicles or blebs are on the auricle, or not too deeply situated in the canal, they should first be painted with flexible collodion, followed by exposure to the infra-red rays.

As in herpes zoster elsewhere in the body, exposure to roentgen rays should be employed. This is of particular value in the presence of persistent pain, and if the pain is of the form of post herpetic neuralgias seen frequently in the elderly. The exposure to roentgen ray should be over the occiput. It can be repeated every other day. The effect of the exposure to the roentgen ray is to relieve the severe pain and itching. The pain may be so severe that sedatives may be indicated. In addition, the intravenous use of a 1 per cent solution of sodium iodide has been recommended. The hypodermic injection of surgical pituitrin has also

given relief. Locally, the use of dusting powders such as boric acid or zinc stearate is beneficial.

Dr. Hunter has mentioned influenzal or hemorrhagic blebs and cautioned against performing a paracentesis of the ear drum in their presence. This is extremely important, for by doing this one may cause a virulent dissemination of toxins. Whether these blebs rupture spontaneously or are incised, the after-treatment with boric acid in 50 per cent alcohol is useful.

As to the second group of affections that were mentioned, namely, seborrheic dermatitis, the dermatologists believe, as stated by the essayist, that the condition is an extension from a seborrheic dermatitis of the scalp. In the uncomplicated cases perhaps the best way to treat this condition is by tar preparations in the form of ointments rather than by alcoholic solutions. If the condition has been persistent, exposure to roentgen rays yielded some splendid results. I have had a patient with an extensive infection extending not only over both auricles but postauricular, extending up into the scalp and down the side of the neck, presenting a most extensive type of infection. The seborrheic condition has become complicated with an eczematoid condition which had tried the ingenuity of every conceivable method of treatment. The procedure that finally gave relief was exposure to roentgen rays. Occasionally the use of autogenous vaccine must be added to the treatment. In severe cases it is well to correct the diet, with particular emphasis on a low carbohydrate intake.

The third condition mentioned by Dr. Hunter, that of mycotic infections, appears frequently in our clinics. It occurs frequently in the summer following bathing in the pools or in the ocean. The late Dr. Alexander Randall stressed these infections. The usual mycosis is the *Aspergillus niger*. *Epidermophyton* and *Trichophyton* are rather rare in their occurrence. The preparations that have been outlined are of especial benefit. Dr. Randall's method of treating these infections was thoroughly to cleanse the ear with a solution of equal parts alcohol and peroxide, being careful to dry the ear. This was followed by the insertion of a wick of cotton saturated with an ointment of 2 per cent yellow oxide of mercury, repeated daily.

DR. HUNTER (in closing): I might have mentioned some other conditions such as cholesteatomatous plugs in the ear recently reviewed in an article by Green in *Archives of Otolaryngology* (August, 1933). Progressive seborrheic dermatitis leads to lymphangitis. I have seen patients in whom the auditory canal was practically closed off, only a small slit being left.

It is very important, as Dr. Wood stated, to diagnose cervical abscesses because of the involvement of the great vessels of the neck.

One point in history taking is to inquire in cases of herpes zoster about exposure to varicella, because a connection between herpes zoster and varicella has been shown.

In some of the cases of influenzal otitis media it is almost impossible to distinguish between the external cases and those involving the middle ear. In certain cases the drum will rupture, followed by a purulent otitis media.

In the case I reported it was interesting to note that the pain preceded the eruption by a period of time, and in that respect it resembled a herpetic eruption, or one of neuritic origin, and not the standard textbook picture of influenzal otitis.

GENITO-URINARY TUBERCULOSIS

UROGENITAL TUBERCULOSIS*†

THEODORE R. FETTER, M.D., PHILADELPHIA

During the past few years medicine has undergone a definite trend of improvement in the early recognition and treatment of human illness. This change is especially noticeable in the early diagnosis of genito-urinary tuberculosis. The keynote may be characterized by one word, *viz.*, coöperation. If one becomes interested in tuberculosis of the genito-urinary tract, he is immediately impressed by the suffering of those infected with bladder tuberculosis. There are no patients who come for relief to whom you can promise so little, even after surgical intervention. Malignant conditions may be the only exception to this statement. Thus, the thought came to me that it might be well to review the clinical records of patients sent to us for treatment. I must confess the outlook is gloomy and the opportunity for greater improvement is still among us.

In recent years much progress has been made in the treatment and prevention of pulmonary tuberculosis. The public has responded by contributing money to further the study of control of tuberculosis. A gradual and progressive reduction in the incidence of pulmonary and glandular tuberculosis has resulted. In accomplishing this, they control other lesions because the lung is the most common site of the primary infection. The clinician, roentgenologist, the surgeon, the bronchoscopist, and the pathologist have coöperated to the extent that today, early diagnosis of pulmonary tuberculosis is the rule and no longer the exception. Urologists have not been primarily interested in the early diagnosis of tuberculosis in the urinary tract, because their problem revolved about the relative merits of surgical or nonsurgical intervention.

Medlar and his associates have definitely ended numerous arguments whether or not the tubercle bacillus would pass through a healthy kidney. He proved that if the tubercle bacillus appeared in the urine from a kidney, such a kidney is the seat of tuberculosis. This study should be reviewed if there is doubt as to Medlar's conclusions. In 1932, Lieberthal and Von Huth repeated the studies of Medlar and corroborated his results. These investigators state that trauma or previous disease in a kidney showed no disposition to make the kidney permeable to the passage of the bacillus of tuberculosis. Thomas

has also checked the studies of Medlar and is thoroughly in accord with his findings that non-destructive lesions of tuberculosis may heal and that tubercle bacilli do not pass through a kidney that does not contain a lesion of tuberculosis.

Thus, the problem of the urologist has been greatly encouraged by the above investigators and we expect the same coöperation from the clinician, the roentgenologist, and pathologist who have so well served the pulmonic patient. The instruments of precision in the hands of a modern, capable, urologist should leave little room for doubt of existing tuberculosis in the kidney, if all the aids of good medicine are employed.

This report is based on a series of 62 cases operated upon for some form of genito-urinary tuberculosis during the years 1928 to 1933. It was utterly impossible to gather any data in regard to their present condition because of the poor response to the questionnaire sent out. Ninety-seven patients were admitted to the urologic service, in whom a diagnosis of tuberculosis of the genito-urinary tract was made. This represents a total of 8 per cent of the total admissions during a 5-year period. As stated, 62 submitted to some form of surgery, 12 refused surgery, and 23 were advised to enter sanatoria or preferably to move to the Southwest. These figures were rather surprising in view of the progress already made in curtailing pulmonary tuberculosis. Woodruff believes that in many communities, physicians with urologic training are recognizing renal and genital tuberculosis more readily and these physicians advise such patients to have hospital treatment. Furthermore, many of us who serve on outpatient departments of the various hospitals can readily recall numerous instances in which tuberculosis of the urogenital system is suspected in the patient, and probably diagnosed clinically as such, who does not reappear for further investigation. The problem, therefore, of its incidence is rather difficult to ascertain correctly, and we are able to study only those cases that come under proper supervision. One may readily see that if any inroad on its surgical incidence is to be made, suitable places must be provided for the control of the infection.

For the purposes of discussion, the various operations will be outlined under the following headings: (1) Operations for the relief of symptoms for which no relief was obtained; (2)

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† From the Department of Urology, Jefferson Medical College and Hospital.

operations for tuberculous lesions elsewhere in the body; (3) operations for tuberculous lesions of the genito-urinary tract.

GROUP 1.—*Operations for the Relief of Symptoms without Obtaining Relief*

	<i>No. of Cases</i>
Appendectomy	8
Suprapubic cystotomy	1
External urethotomy	1
Hysterectomy	1
Perineal repair	1
Varicocele	1
Total	13

In this group there were 13 patients who consulted their physicians because of various symptomatology. As one might expect, appendectomy heads the list. The urinary symptoms were given no attention and the patients were subjected to a surgical procedure without gaining relief. A suprapubic cystotomy was done for purposes of fulguration of an ulcer in the bladder, because at cystoscopy it was unsuccessful to distend the bladder. One external urethotomy for stricture, one hysterectomy, one varicocele because of a mass in the scrotal sac, and one perineal repair.

GROUP 2.—*Operations for Tuberculous Lesions Outside of the Genito-urinary Tract*

	<i>No. of Cases</i>
Osteomyelitis of hip	2
Psoas abscess	1
Pneumothorax	3
Thoracoplasty	1
Albee operation (Pott's disease of spine)	1
Drainage of hip, bilateral	1
Fistula in anus	1
Total	10

It is obviously important to ascertain from the patient if possible or the patient's physician information regarding previous operations. Lesions of the bones and joints usually predominate in such a group. In recent years one notes the increasing frequency of surgery in pulmonary tuberculosis.

The coexistence of renal and genital tuberculosis is demonstrated to a greater extent by all recent reports. Since renal and genital tuberculosis are secondary infections, and follow most frequently pulmonary infection, danger of distribution of the tubercle bacillus to the kidney, prostate, or epididymis is always present in a person suffering from lung involvement. The possibility of infection by interchange from the urinary tract to the genital tract is readily recognized. It is also true that many patients presenting themselves with urinary tuberculosis are free from any genital involvement. If the latter

is the presenting condition, however, the percentage of urinary tuberculosis is greater. The early appearance of genital tuberculosis in the epididymis is usually the reason for the appearance of the patient in a physician's office, whereas, early renal tuberculosis may not be brought to the patient's attention until definite bladder symptoms are noted. Thus, when seen by a urologist, marked changes have taken place in one or both kidneys. In other words, this review brings our attention to the fact that the greater number of patients suffering with genito-urinary tuberculosis were admitted for some surgical procedure. If surgery was not instituted or advised, the patient was doomed.

GROUP 3.—*Operations for Tuberculous Lesions of the Genito-urinary Tract*

	<i>No. of Cases</i>
Nephrectomy	27
Ureterectomy (secondary to nephrectomy)	1
Nephrectomy, drainage of psoas abscess	1
Left nephrectomy, right orchidectomy—3 years later	1
Right nephrectomy, bilateral orchidectomy—2 years apart	1
Left nephrectomy, left orchidectomy (3 months later; 8 months later)	2
Left nephrectomy, bilateral orchidectomy	1
Right orchidectomy, previous right nephrectomy ..	1
Right orchidectomy	3
Left orchidectomy	5
Right orchidectomy, previous right epididymectomy ..	1
Epididymectomy	14
Left orchidectomy, right epididymectomy	1
Left orchidectomy, previous left epididymectomy ..	1
Bilateral orchidectomy (castration)	2
Total	62

The incidence of age in this group of cases corresponds favorably with reports of similar studies. The preponderance of urinary tuberculosis occurring in any one decade was 19, ranging between age 30 and 39; in genital tuberculosis, the number was 16, ranging between the ages 20 and 29. More than half of the cases occurred between ages 20 and 40. The youngest patient was a male, age 16; the oldest a female, age 59. It would seem that urinary tuberculosis in childhood is uncommon. With the increasing interest in urology in children, some cases of so-called pyelitis and chronic pyuria may ultimately prove to be tuberculosis.

In this series there were 52 males and 10 females. Two negroes are included in whom a bilateral orchidectomy or castration was done, the specimens removed proving to be tuberculous.

Much more important than the question of age and sex incidence is the question of whether or not in a given case one is dealing with a unilateral or a bilateral process. Naturally this as-

sumes great importance from the standpoint of treatment, prognosis, postoperative duration of life, and has a bearing in the value and results of the surgical treatment. Thomas maintains that since practically all tuberculous infections of the kidney occur through the hematogenous route, both kidneys are primarily infected except in rare instances. This occurs following repeated bacteremias or the pouring into the blood stream of many tubercle bacilli from a suppurative gland or other focus. It is correct, therefore, to expect the greatest number of lesions in the cortex. According to Medlar, in 75 per cent of the kidneys examined, healing takes place to a greater extent in the cortex than in the medullary portion in which healing rarely occurs. The medullary lesions are always secondary to an adjacent vascular lesion which has taken place, with consequent rupture into an already infected tubule, as the medullary lesions have their origins in the lumen of the tubules. If the process is a bilateral one, and the patient has a low resistance, polymorphonuclear leukocytes are attracted to the injured tissue, and an abscess results. If this abscess is near a tubule or pyramid, it discharges into it, tubercle bacilli appear in the urine, and cavitation follows. If the abscess does not empty into a tubule, then the mononuclear leukocytes appear, and if the reparative process proceeds satisfactorily, giant cells appear, the leukocytes and lymphocytes disappear, and scar formation results. Calcification may also be the end result. Medlar recognizes a hyperplastic type of infection accompanied by mononuclear tubercles in persons of high resistance. In these kidneys no caseation takes place and healing occurs by scar formation with destruction of the tubercle bacillus. Cavitation probably never heals in a kidney but the process may be arrested by the surrounding fibrous tissue. If the cavity has a connection to the renal pelvis, destruction of that kidney continues. In many pyonephrotic organs removed, the tubercle bacillus may not be found in the urine, but on section of the organ, the organism is discovered in direct smears made from the content of a cavitation which has been walled off by fibrous tissue. Again the extension of the disease downward towards the bladder marked inflammatory change of the ureter may occur, causing a stenosis and thus preventing the urine from entering the bladder. Tuberculosis of the kidney was suspected, nevertheless the tubercle bacillus could not be isolated because of the ureteral block. In sectioning the kidney, tubercle bacilli were found in the smears made from the organ's contents. Caulk states that 36 per cent of surgical lesions of the kidney are tuberculous. In

our specimens of 38 nephrectomies, the lesion of tuberculosis was far advanced with the exception of 4 cases. Hunt reported in his series of 189 tuberculous kidneys removed, only 9 per cent could be classified as being "early."

This series does not include 23 patients with genito-urinary tuberculosis who were advised that surgery was contraindicated, either because of bilateral renal tuberculosis or the maximum surgical procedures on the urogenital tract had already been done compatible to prolonging life and consequent suffering. The plight of these patients is pitiable. The majority are advised to go to a different climate and we may add here that the majority have not the means to follow the advice.

One may safely believe that the incidence of bilateral renal involvement will increase in direct proportion to the thoroughness and accuracy in diagnosis. With the refinement of new cultural methods for growing tubercle bacilli as well as renewed interest in developing better technic for showing the organisms in smears coupled with the refinements in pyeloscopy and pyelography we will be able to demonstrate more correct diagnoses in renal infections. It is important not to overlook a bilateral case and perhaps perform an unnecessary surgical operation; it is equally important not to diagnose erroneously a case of bilateral renal tuberculosis, as by doing so the patient may be deprived of surgical treatment, when the only therapeutic agent at hand is nephrectomy.

In this series of operative cases 16 had definite pulmonary involvement in various stages of activity and healing; 3 came directly from sanatoria for genito-urinary treatment; 4 had previously been inmates in sanatoria. It is routine today to have in addition to the physical examination a roentgenogram made of the chest. Our records do not show that this was carried out in all the cases reported. It is, however, important to have information relative to the pulmonary condition from the standpoint of the choice of an anesthetic. Many patients are not aware that they have pulmonary tuberculosis, or if they are cognizant of this fact, they say nothing about it, because as a rule the urinary symptoms predominate.

Tuberculosis is considered a chronic disease. In the urinary tract it often shows the most acute symptomatology. On the other hand, patients are examined who complain of no urinary symptoms whatsoever, and yet show marked renal destruction with active tuberculous infection. The severity of the urinary symptoms depends largely on the amount of infection of the bladder. It is admitted by all urologists that the best functional

results, so far as the bladder is concerned, are obtained in cases in which there is very slight or no involvement of the bladder. It is this type of case which makes us feel that early diagnosis followed by surgical treatment before the bladder is involved is the proper method of therapy.

In noting the duration of symptoms in our series the greater percentage falls within one year. In the group of genital cases the time element is reduced as the majority of our cases state a period of 3 to 4 months' duration. The shortest period in the urinary group is 3 months; the longest duration is 21 years; in the genital group the symptoms of one case persisted for 3 years before correct treatment was instituted.

Frequency of urination, nocturia, burning on urination, and pyuria were noted as the outstanding symptoms. Hematuria and pain on urination were next most common. Loss of weight, chills and fever, pain in the back, gastro-intestinal distress, and incontinence may be mentioned. In genital lesions the predominant symptom was swelling of the epididymis. In several cases a discharging scrotal sinus was noted. Again a chronic urethral discharge was observed in 2 patients who were treated for a variable time as gonorrheics. A smear in both cases proved to be positive for the tubercle bacillus. It is well to remember this fact in treating a urethral discharge which remains adamant to all forms of local treatment.

In this series, smears, cultures, and guinea pig inoculations were positive in 28 cases (45 per cent). It is generally recognized that the inoculation of guinea pigs with urine from patients who are suspected of having renal tuberculosis offers a valuable aid to diagnosis. Unfortunately, the method is not infallible and it is not sufficient evidence to indicate that operation should be done without other clinical data. It is a test that has been severely criticized. Some urologists even state that they never use it. Nevertheless, experience has shown, it still remains one of the most valuable tests.

CYSTOSCOPIC EXAMINATION

In this group the bladder presented a marked involvement of tuberculosis. This was rather surprising as the majority reports mention the fact that bladder infection has been greatly reduced. Essentially, this is true. In our clinic, however, we see rather frequently the contracted, intolerant tuberculous bladder. The ulcerated "golf hole" meatus is becoming steadily more rare. In more than half of the bladders examined, some condition about one or the other meatus, renal tuberculosis was suspected.

Ureteral catheterization is done in all cases of

suspected renal tuberculosis and specimens of urine collected for guinea pig inoculation. In many instances it may be impossible to pass a catheter to the renal pelvis for collection or urographic purposes because of a ureteral block or stenosis. The question of catheterizing an apparently normal side in the presence of a known infective side is debatable. If there is a non-functioning tuberculous kidney on one side and the meatus presents a normal appearance on the other, with a normal indigo carmine function, we refrain from further catheterization. On the other hand, if both kidneys give a good functional dye test, we investigate both kidneys as to the possibility of bilateral renal tuberculosis. Excretion urography is not sufficiently positive to make this distinction for us.

FUNCTIONAL TESTS

We use indigo carmine intravenously as a functional dye test. An estimate of renal function by chemical means is also done routinely. The renal function by chemical studies of the blood has been somewhat helpful, but only with definite destructive lesions. Experience taught us that we cannot rely too much on the functional dye tests as large destructive lesions will give a fairly good response.

PYELOSCOPY AND PYELOGRAPHY (RETROGRADE AND EXCRETORY)

In employing urography in the diagnosis of renal tuberculosis one should always follow the fundamental principle that it is unnecessary if a diagnosis can be made without it (Braasch). In many instances the bladder and the ureteral orifice show no definite evidence of tuberculosis or no suggestion of it, and the cultures and smears give negative results, urography is the only means in identifying the lesion, and if not used a correct diagnosis will not be made. In our clinic we find pyelograms indispensable in the diagnosis of early lesions of tuberculosis.

Many urologists have the roentgenologist make simultaneous pyelograms. It is not our practice to do this although every pyelogram made is done under fluoroscopic control. It is the exception rather than the rule to inject the renal pelvis by a syringe. We use the gravity method of allowing the sodium iodide solution to run into the renal pelvis gauging the flow under the guidance of the roentgenologist. This method tends to give less irritation to the patient than any other means known. Some condemn the use of the pyelogram as a diagnostic aid in renal tuberculosis.

The early pyelographic filling defect found with renal tuberculosis is produced by a small

area of renal destruction, a cortical abscess. It is usually found at the tip of a calix. As the destruction becomes more marked the filling defect is more noticeable and the typical feathery, fuzzy calix appears.

Intravenous urography or excretion pyelography often fails to outline pelvic deformities. In early tuberculosis the substances in use today (neo-iopax or neo-skiodan) do not delineate the minor calix and pelvic deformities. In cases in which there is some ureteral obstruction, as is often the case in tuberculous ureteritis, enough of the solution may remain in the kidney pelvis and thus bring out the pelvic deformity. It is only in advanced cases in which destruction and pyelectasis are marked that the specific deformity is recognizable. Retrograde pyelography still maintains its place as the more accurate method of roentgenologic diagnosis.

TREATMENT

The treatment of genito-urinary tuberculosis is undergoing a gradual change. Numerous writers report a more conservative attitude in instituting surgery before a thorough evaluation of the prognosis and postoperative course has been made. It is realized by all urologic surgeons that nephrectomy is only the beginning of therapy. The keynote of all procedure must place a decided emphasis on the fact that there should be no hurry about operative removal of a kidney. The difficulty of properly treating incipient renal tuberculosis by diet, rest, sunshine, and probably change of climate is one of the most pressing problems in urology today. Sanatorial treatment for the urogenital consumptive is still regarded as fantastic. It must be admitted that great strides have been made in pulmonary tuberculosis. Is it insulting one's intelligence if we ask that a similar trial be given to the patient suffering from tuberculosis of the genito-urinary tract?

It should be borne in mind that there is a possibility of spontaneous recovery from renal tuberculosis. Thomas termed these lesions nondestructive tuberculous lesions and states that they will heal. He further believed that this type of patient should have sanatorium treatment until the urine is free from pus and tubercle bacilli and until the patient has demonstrated his ability to heal or control any other lesions of tuberculosis which may be present. It would seem that spontaneous recovery is confined to those cases of early primary infection without destruction of renal tissue. In the great majority of cases in which the urologist is called, spontaneous recovery is remote. Pathology of the specimens removed supports this statement.

If one bears in mind that urogenital tuberculosis is a part of general systemic tuberculosis, he will not be led astray in his therapeutics. To state arbitrarily that nephrectomy or epididymectomy is the only therapeutic agent on hand is merely deluding the patient and shows lack of foresight of the attending surgeon. Thomas even went so far as to advise sanatorial treatment before and after nephrectomy. The admonition that one should never be in too much of a hurry, whatever the operative treatment instituted, is a safe one.

The treatment of genital tuberculosis is somewhat easier of solution. The primary site of the infection is in the epididymis and is usually considered a surgical problem. Prompt removal of the epididymis is indicated and if the testicle is suspected of being involved, the entire tract is removed, because sooner or later, if a vestige of the infection remains, suppuration of the testicle ensues. In our series we did not hesitate to remove the epididymis and testicle if necessary. In the specimens removed, the pathologist reported tuberculous infection in all but one case. In widespread suppurating genital tuberculosis, castration is done. There were two such cases in our group.

The question of medical treatment of tuberculosis of the epididymis is a controversial one. If suppuration is not present, it certainly should be given a trial if one can follow the course of the disease. If this cannot be done, it is better to perform epididymectomy.

Tuberculosis of the prostate is rather uncommon. If situated primarily in the prostate, surgery is contraindicated and treatment must be directed along the lines of proper hygiene, *etc.*

Tuberculosis of the seminal vesicles is usually associated with a general urogenital tuberculous infection. Surgery again is not indicated unless one can be definitely positive that the infection is primarily seminal vesicular and a seminal vesiculectomy be performed.

Bladder tuberculosis is very resistant to all forms of treatment even after nephrectomy. In our experience, the instillation of gomenol, 20 per cent, several times weekly often tends to relieve the patient. Transurethral irradiation with the ultraviolet ray as reported recently by Caulk is now being employed in our cases, with indefinite results.

It is safe to believe that if there is a lesion of tuberculosis in the genital tract, there either exists an active renal infection or a dormant infection is present. One need only review the list of operations mentioned in the beginning of this paper. Therefore, treatment must be on the

same order as in general tuberculosis. The treatment of urogenital tuberculosis is not surgical nor medical, but a coöperate medico-surgical one.

CONCLUSIONS

1. Urogenital tuberculosis is not primarily a local condition, but is secondary to a generalized infection.

2. A group of 62 operative cases for genito-

urinary tuberculous lesions during a 5-year period, 1928 to 1933, is reported.

3. A plea is made for a better understanding of the early lesion of renal tuberculosis and for providing suitable places for their handling.

4. Coöperation of the clinician, roentgenologist, pathologist, and urologist is particularly desired.

337 South Eighteenth Street.

RENAL TUBERCULOSIS*†

Clinicopathologic Diagnosis

CARL J. BUCHER, M.D., PHILADELPHIA

There is an extensive literature on the diagnosis of renal tuberculosis. To one who scans it cursorily it is evident that there are many opposing views on the diagnostic value of the methods employed by the clinical laboratory to substantiate the diagnosis. It is the purpose of this paper to review these methods briefly and to attempt to answer whether there is a sound basis for such radical differences of opinion.

The methods employed by the laboratory to demonstrate tubercle bacilli in urine are the microscopic examination of smears made from urinary sediment; the production of the disease in animals, principally guinea pigs, by inoculating them with urinary sediment; and the direct culture of the suspected urine for these organisms. Each of these methods has advantages and disadvantages, more apparent perhaps to the clinical pathologist than to the clinician.

A few general considerations are applicable to the three methods. They are very simple and yet so important as to deserve mention. The first of these considerations is the type and the amount of the urinary specimen. He who passes judgment on the value of a negative finding must weigh carefully whether the specimen was a small one, collected from the ureter, a single specimen obtained by catheterization or voluntarily passed by the patient, or a carefully collected 24-hour quantity of urine. One is not so apt to find tubercle bacilli in 5 c. c. of urine as in 1500 c. c. The value of all these tests in many cases, begins and ends here. Tubercle bacilli, unfortunately, do not always accommodate themselves to the size of the specimen.

Next in importance are a few preliminary technical points. It is necessary to centrifuge the whole specimen. To save time, a 24-hour

quantity of urine may be permitted to settle by gravity for several hours, the upper half be pipetted off, and the lower half be centrifuged. The speed of the centrifuge and the time of centrifugation are important details in these tests; 1300 or 1400 revolutions a minute for 30 minutes suffice to throw down most bacteria.

With these preliminaries properly performed, one is prepared to carry out the tests with the sediment so obtained. Smears of the sediment fixed by heat and stained by Ziehl-Neelsen's method yield acid fast bacilli in a large percentage of positive cases. Should this method fail, it does so for one of several reasons. The bacteria in the specimen may be very few. An insufficient number of smears may have been examined, or not enough time, diligence, and persistence exercised in the search for bacilli. Then again, the preliminary steps may have been improperly performed or further search with a new specimen may not have been undertaken.

The method has a single important disadvantage. One cannot unequivocally report tubercle bacilli present. Other acid fast organisms, principally the smegma bacillus, may be present. When this test is positive, however, and the clinical, roentgen-ray, and cystoscopic studies are in accord, a clinical diagnosis of renal tuberculosis is justifiable.

The second method consists of the inoculation of a guinea pig with urinary sediment and subsequently examining the animal for tuberculous lesions. It is generally accepted as the method of choice. Its value is not contested but the overwhelming faith of some medical men in its efficiency is not altogether warranted. Though the technic of the test has been properly carried out, the test nevertheless has some decided disadvantages. Barney and Young report 1 per cent of error by this method; Hyman and Mann, 36 per cent of error in a total of 42 cases

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

† From the Clinical Laboratory of the Jefferson Medical College Hospital.

of renal tuberculosis; and I have had 6 failures in 21 cases positive for bacillus tuberculosis or 28 per cent of failures. An analysis of the failures is interesting. One fails usually because the animal succumbs to infection introduced with the urine containing tubercle bacilli and other pathogenic organisms or the guinea pig dies of an intercurrent infection. The first can be overcome by treating the sediment with 4 per cent sodium hydroxide, neutralizing with hydrochloric acid or by treating with 6 per cent sulphuric acid and washing. Intercurrent infections cannot always be prevented even with the most rigid care of the animals. Inoculating more than one animal is advantageous and ought to be done but it is not always an economically sound procedure. Animals cost money, and the patient, the hospital, and the community have limits to their financial resources.

The old question of spontaneous tuberculosis in guinea pigs arises as a point against the test. Such instances have been reported by Sewall and by Sewall and Lurie. The infrequency of this disease in guinea pigs has been commented upon by Koch, Calmette, and Corbett. Koch distinguished lesions of spontaneous tuberculosis of guinea pigs from those resulting from inoculation with tubercle bacilli. The lesions are not difficult to distinguish. Objections to the test on this score are not well grounded.

The method which I wish to discuss has ardent advocates and some critics. The culture of the tubercle bacillus directly from the urine and other pathologic material is the newest of the diagnostic methods. Heretofore, the culture of mycobacterium tuberculosis has been considered a special procedure of the laboratory. The method has been advocated by Hahn, Von Hurth and Lieberthal, Loewenstein and Sumiyoshi, Corper and Uyei, and others. Each of these has his own method of making cultures but there is a common agreement among them as to the usefulness and practicability of the method. Each feels that his method is technically simple enough and the result trustworthy enough to place it first among the methods of diagnosis. Having used cultures now for more than three years, I concur with them in their opinion. I have employed Corper's method. It consists essentially of treating the urinary sediment with 6 per cent sulphuric acid and later seeding it on Corper's potato medium. Of 143 urinary cultures for the recovery of tubercle bacillus from urine, checked simultaneously by the inoculation of guinea pigs, 21 positive results were obtained. In 11 of these, both the cultures and the guinea pigs gave positive results, twice the cultures were negative and the guinea pigs developed tuberculosis.

Eight times the cultures were positive and the tests in the guinea pigs failed. The cultural method is at least as accurate as the method of inoculation. In my series it was more accurate. It is very simple and technically easy. The results are usually obtained earlier, in 2 to 4 weeks, than with a guinea pig. It is very inexpensive and deserves a trial by all diagnostic laboratories.

Corper's method has two disadvantages. In a certain number of instances molds contaminate the culture. This can be avoided usually, by seeding more than one tube, partially infiltrating the cotton stopper with paraffin, and by the use of a tin foil cap on the culture tube. The other disadvantage is that of failure of the medium to support a vigorous growth of the bovine strain of the tubercle bacillus. I gather from the literature, however, that renal tuberculosis is a disease of late adolescent and adult life and that human infections with bovine tubercle bacilli during those periods are negligible. This objection to the method is not a valid one.

The radical differences of opinion on the diagnostic value of these three tests are not well founded. In every instance, microscopic smears should be examined and at least one or the other of the other two methods of diagnosis be employed. The cultural method seems to be the more valuable of the two. It need not, however, entirely supplant the inoculation of guinea pigs any more than the precipitation tests for syphilis have supplanted the complement fixation tests. A nice combination of all three methods will yield the largest percentage of positive results. One is a countercheck on the other. Surely, the removal of a kidney is a serious enough procedure to merit all the evidence obtainable before it is attempted, provided the delay does not constitute a greater hazard to the patient's life.

Fifteenth and Spruce Streets.

ABSTRACT OF DISCUSSION

THOMAS C. STELLWAGEN (Philadelphia): Tuberculosis of the kidney has always been a trying problem. Not necessarily the operative procedures but the judgment as to when and how to operate. I have never been fully convinced that renal tuberculosis is as curable by surgery as some believe it to be. If we accept the statistics on this subject we should in most instances remove the kidney; there are cases that do not warrant radical surgery. I do not wish to question the validity of statistics and, therefore, will not quote any set. I wish to state that nephrectomy for renal tuberculosis has not been associated with the same degree of successful cure that many of the statistical studies relate. It is an engrossing problem whether or not only one or both kidneys are involved. This question is a very important one and cannot be too carefully considered. It has always been our custom to have thorough studies made by chest experts and then re-check before operating upon these patients.

It is not my desire as a genito-urinary surgeon to cast discredit upon our specialty; the removal of a kidney should not be done until its pathology has been definitely established and the lack of the same proved in its fellow. I have removed kidneys that would have been better left alone, the individuals from whom they were removed at a later date presented evidence of tuberculosis in the remaining kidney and their lives were not lengthened or made easier by the surgery done.

In conclusion, we wish to impress every genito-urinary surgeon with the very important necessity of a thorough study and a re-check of the findings of both kidneys and other structures that may militate against a cure.

LEON HERMAN (Philadelphia): If we are to come to any rational point of view of the therapy of genito-urinary tuberculosis, we must have a rather concise idea of the pathogenesis of the disease in its broader aspects, we should have the ability to demonstrate mechanically the progress of the disease in the genito-urinary tract, and we have the clinical ability to estimate, in so far as possible, the probable outcome of the particular lesion that is present in relation to the general physical economy or in relation to the progress of the disease in the organ involved. Urologists have the mechanical means of very accurately estimating the progress of the lesion. We are good surgeons; and most of us perhaps permit our surgical ability to influence our judgment to an unfortunate extent in the treatment of genito-urinary tuberculosis. If we are going to get anywhere we should have some concise idea of what we are doing. In the past few years our view of tuberculosis, especially of its pathogenesis, has undergone a complete change. In a recent number of the *Journal of Urology* a man from Budapest published an article that embodied everything that is rational about renal tuberculosis. We used to think that there was such a thing as unilateral tuberculosis of the kidney; but it is simply the end result of an infection, that was once widespread in the upper urinary tract and the only possible reason that we can operate on any of these kidneys is that in the progress of the disease, nature has localized it to one side and what we take out is either a nonfunctioning end product or rapidly becoming so. The author of the article referred to in discussing the question of a possible bacilluria, stated that in his experience they had not seen a case which justified a belief in the existence of a secondary tubercle bacilluria. He said that there was nothing to confirm the belief that it was possible to have a cortical involvement and that, therefore, cases of bacilluria indicated a lesion of the parenchyma that had broken into the pelvis and that there was an open lesion in direct communication with the pelvis. That is what one who had done any surgery of renal tuberculosis in its early stages would conclude. Now, unfortunately for diagnostic comfort but fortunately for the patients, such things occur as a very minute abscess that breaks into the pelvis, discharges its bacillary contents, continues to discharge them over a certain period of time; then by virtue of nature's reaction, heals up. Unquestionably there are patients in whom we find tubercle bacilli in whom we cannot demonstrate any defect at pyelography, and who eventually recover.

In renal tuberculosis I take issue with Dr. Stellwagen. If pyelography illustrates or demonstrates an open lesion, if it is excreting tubercle bacilli, it is the better part of judgment within the limit of our present knowledge to remove the kidney.

DR. STELLWAGEN: Sometime ago Dr. Herman exhibited a kidney, which had just a little infiltration of

one of the calices that was definitely tuberculous; on another occasion a surgeon from New York, in an address, said he thought no patient should be nephrectomized unless there was definite cavitation. Dr. Herman agreed with him. It shows the chaos in this situation. I believe that Dr. Herman would not nephrectomize an individual if he thought the patient had sufficient resistance. The great *bête noir* we have to face is: When should these patients be nephrectomized?

W. HERSEY THOMAS (Philadelphia): May I ask Dr. Bucher what relation avian tuberculosis bears to renal tuberculosis? I have heard the guinea pig is not subject to avian tuberculosis and that is one source of error. We see cases of renal tuberculosis in a much earlier stage than formerly; and then, at the other end of the line, Dr. Stellwagen spoke of patients one operated upon for their relief, and even in late cases frequently we should not withhold our hand. I recall a girl age 20 who had pulmonary tuberculosis and tuberculous coxitis, whom I kept in the ward for several weeks with a tuberculous pyonephrosis and involvement of half her bladder, which caused her to urinate every 10 minutes. She was sent home as inoperable. Three months later her physician sent her back, insisting that something should be done. I removed the left kidney, feeling at the time that she was beyond any natural aid. Nevertheless she got well enough to resume her occupation. She voided every 4 hours and lived for 2 years. For 1½ years she was comfortable, carrying on her usual duties and finally returned to the hospital with what proved to be tuberculosis of the remaining kidney. It is the patient rather than the disease that should be considered.

DR. HERMAN: Nephrectomy is the treatment of unilateral renal tuberculosis, as is fundamentally proved in the history of urology. There is a set of statistics to state that nephrectomy is the treatment of unilateral tuberculosis; there are no statistics to prove that there is any medical treatment to cure renal tuberculosis. I have tried to find statistics from any sanatorium or any doctor to show that palliative treatment of renal tuberculosis ever cured anybody, and I defy anybody to present statistics to prove that renal tuberculosis was ever cured by medical treatment. If we get such cases and advocate medical treatment for them, we are taking a long step backward.

DR. STELLWAGEN: I take issue with the situation as to the time at which these patients should be operated on. If the symptoms are of such a character that they necessitate surgical relief from very distressing conditions, I operate upon them.

DR. HERMAN: They all die if you do not nephrectomize them.

JOSEPH C. BIRDSALL (Philadelphia): I agree with Dr. Herman: You should operate as soon as you make a diagnosis, and not postpone operation in order that the patient may develop greater resistance.

DR. FETER (in closing): I wish to confirm Dr. Herman's statement that in reviewing the literature he was unable to find any statistics which could be formulated. The point I wish to emphasize, Dr. Birdsall just mentioned: The immediate treatment is important but we overlook the factor in not properly instructing these patients as to their future. If I was successful in emphasizing this aspect of genito-urinary tuberculosis, the presentation will be of value.

DR. BUCHER (in closing): Dr. Thomas asked about the avian strain of tuberculosis in lesions of the human kidney; it is not a factor.

TREATMENT OF GASTRIC CANCER*

JOHN H. GIBBON, M.D., PHILADELPHIA

The ultimate results following operation for carcinoma of the stomach fall far below those which modern surgery has made possible when the disease is situated in other organs—such as the breast and colon. This is not due to any fault in the technic of the operation or resection of the stomach, but is due largely to the fact that cancer of the stomach starts insidiously and often gives no plain evidence of its presence until far advanced. It is this characteristic of the disease which renders early diagnosis difficult, but at the same time makes it more important. The majority of the cases in which the diagnosis is based on the typical evidence of cancer of the stomach—cachexia, absence of free acid, obstructive symptoms with vomiting, and the presence of an extensive defect in the roentgenograms, have passed to the stage of inoperability or to a point at which even complete removal is followed by early recurrence and death. Occasionally cases are encountered in which the disease is advanced and yet a surprisingly good result is obtained. This happens sometimes with cancer in other locations, but there is little comfort to be derived from these surprises because they are so rare. The gravity of the situation is naturally determined by the extent of the glandular involvement and some of the unexpected good results can be explained by the absence of microscopic evidence of malignancy in the removed glands. Inflammatory enlargement of the glands is very common should ulceration of the growth be marked. A thorough histologic study of the glands is most important and is the best index to the prognosis.

It is apparent that, in order to improve our results, earlier diagnosis should be made and often operation performed if only suspicion of malignancy exists. Experience leads me to believe that the development of cancer in old ulcers of the stomach is much less frequent than was formerly supposed; certainly less frequent than the cases in which apparently the condition is carcinoma from the beginning. The majority of the patients on whom I have operated gave a short history with rapid development and with nothing to suggest the previous existence of ulceration. The average duration of symptoms has been about six months. That malignant change does take place in ulcers is too evident to be disregarded, and in these cases, the ultimate results following resection are better than in those giving short histories. The so-called "five year

cures" are mostly found in this group. This constitutes a very strong argument for operation in chronic ulcer of the stomach and this operation should be a radical one (gastric resection) if there is a suspicion of malignancy. Malignant change in ulcers beyond the pylorus is extremely rare, although these ulcers may develop into large indurated masses which suggest a malignancy. Many of them in the early days of gastric surgery were cured by a simple gastrojejunostomy done as a palliative measure or as a preliminary procedure to gastric resection.

Before discussing the treatment, let us consider the questions of early diagnosis and the indications for operation in those cases in which no diagnosis can be made, for here lies the chance of improving the ultimate results. In the diagnosis of gastric and duodenal ulcer, the history is of prime importance and is followed in value by the roentgenologic finding and gastric analysis; whereas in gastric cancer the history is often of little value, the roentgen-ray study of the greatest, and gastric analysis of the least value.

There would be fewer cases of inoperable cancer of the stomach encountered by the surgeon if early and thorough roentgen-ray studies were made in all cases presenting gastric symptoms. Training and experience count for as much in roentgen-ray work as in any other field of medicine and are of the greatest importance in making diagnoses of gastric lesions. We should not expect the roentgenologist to make the diagnosis of carcinoma, especially in the early stages, but if in the suspected case he is able to demonstrate a permanent defect in the gastric contour, operation should not be delayed. All such findings will not prove to be due to carcinoma, but may be caused by a number of benign lesions which in themselves, however, constitute sufficient warrant for operation and not a few early carcinomata will be discovered and subjected to early excision. A palpable tumor has too often been considered an indication of inoperability. The presence of a palpable mass if unaccompanied by marked cachexia or evidence of metastasis is not a contraindication for operation. Many of these palpable masses prove to be large indurated ulcers near the pylorus. The extent and character of the glandular involvement is the safest guide as to operability. If an operable lesion is revealed at operation, and yet its nature is in doubt, it should be widely resected and subjected to histologic study. It is a poor conservatism to have a biopsy done in such cases if it means delay in removal. Incomplete removal for exami-

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

nation only increases the chances of metastasis and stimulates growth. The operating surgeon should be able to make a sufficiently accurate diagnosis to determine the type of operation necessary.

The only treatment of cancer of the stomach is its wide removal with all the involved glands. The palliative operations, such as gastrojejunostomy, which are indicated in inoperable cases with obstruction and sometimes, though rarely, as a preliminary to the radical removal, are of the most temporary value. It is very doubtful that gastrojejunostomy prolongs life in patients with carcinoma of the stomach more than a few months; although the distressing symptoms of obstruction may disappear and the patient gain weight and strength, death occurs in a few months with too often a return of the obstructive symptoms. A permanent return to health following these operations means that the lesion was ulcer and not cancer.

Within the recollection of most of us, gastrectomy was looked upon as a very serious operation followed by a high mortality. Today it is performed in any good clinic, with a very low mortality and with no more and often less postoperative discomfort than follows gastrojejunostomy. The type of resection makes little difference in the results, provided it is properly performed. Personally the Balfour and Moynihan operations are preferred and are less apt to give rise to technical difficulties. A resection which does not include the pylorus (the so-called sleeve resections) is today justifiable neither for cancer nor ulcer. Hemorrhage accompanying and following resections has been a potent factor in the mortality and the only way of preventing such a catastrophe is the careful ligation of the larger vessels in the gastric stump and prompt

reopening and arrest of bleeding if it is evident after operation. I have lost one case only from hemorrhage following operation and this patient probably could have been saved had the second operation not been delayed.

Complete gastrectomy has now been done successfully in a number of instances, but the ultimate results have been poor.

The urging of early diagnosis and prompt operation on the part of the surgeon has a very reminiscent sound and one recalls many similar discourses on nearly all surgical lesions, but I offer no apology in the present instance, but rather justify myself by the reflection that it has been this same attitude which has resulted in improved results following operation in so many fields. The poor results following late operation and the relatively good ones after early operation justify iteration and reiteration.

In conclusion, I would say that with more attention paid to early diagnosis with more general and earlier roentgen-ray study and with more frequent operation in suspected cases and in cases supposed to be benign, our present discouraging end results can be greatly improved.

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ABSTRACT OF DISCUSSION

JOHN P. GRIFFITH (Pittsburgh): As Dr. Gibbon has brought out, the only thing that will improve the treatment of gastric carcinoma is early diagnosis.

In treating prepyloric ulcers, I have been chagrined many times to find after partial gastrectomy a very small area of early carcinoma with glandular tissue involved, and that the patient returns in a year or a year and a half with general metastases, followed by death. If I had known that cancer was beginning in the ulcer, a more radical operation might have been done. I have tried on a number of occasions to do as wide an operation as possible and cannot count in my series one patient that has remained well longer than five years.

ACUTE SUPPURATIVE LABYRINTHITIS COMPLICATING ACUTE OTITIS MEDIA*†

Report of Case

JULIUS WINSTON, M.D., PHILADELPHIA

Acute suppurative labyrinthitis complicating acute purulent otitis media is a complication not frequently encountered in the private or hospital practice of otolaryngology. Of 4098 cases of acute purulent otitis media collected by Turner and Fraser this complication occurred 25 times or 0.6 per cent. In a series of 10,381 cases of chronic purulent otitis media this complication

occurred 191 times or 1.8 per cent. From this series we may conclude that acute suppurative labyrinthitis occurs 3 times more frequently in chronic purulent otitis media than in acute middle ear suppuration.

Studying 31 cases microscopically, they conclude the paths of infection are: By erosion of the bony capsule of the inner ear; by the oval and round windows; and, by vascular channels from the middle ear to the labyrinth.

Of 19 cases of acute suppurative labyrinthitis complicating acute purulent otitis media collected

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

† From the Department of Otolaryngology, Temple University School of Medicine.

by Blohmke the windows formed the path of infection in 15 (round window, 2; oval window, 2; both windows, 11) 4 were due to bone erosion, and in 2 of these 4 cases window infection also was present.

Politzer, Lucae, Alexander, Rutin, Zange, and Manasse described fine vascular channels in the promontory and in the bony wall between the niche of the round window and the ampulla of the posterior semicircular canal connecting the vessels of the middle ear with those of the labyrinth. Dehiscences in the bony labyrinth closed by connective tissue have occasionally been observed.

CASE REPORT

A. E., white male, age 50, complained of left earache and left sided headache on Dec. 3, 1931. This was followed the next day by a purulent discharge from the left ear. On Dec. 6, two days after spontaneous rupture of the tympanic membrane, the patient became suddenly deaf in the left ear, dizzy, with loss of equilibrium, falling to the left; there was also nausea and vomiting.

He was admitted to Temple University Hospital on the otologic service. On admission, the right ear was found to be normal, and the left middle ear was discharging profusely through a small perforation in the posterior portion of the tympanic membrane. Pain and tenderness were present over the left mastoid process. There was a spontaneous mixed rotatory and horizontal nystagmus to the right, when looking straight ahead and down. On looking up there was an oblique nystagmus upwards and to the right. There were a few horizontal movements to the right and left when looking to the right and left, respectively. The temperature on admission was 98.2° F., pulse 70, respiration 20. At 4

p.m. the temperature rose to 99.2° F. and at no time during his stay in the hospital did it exceed 100° F. A blood count showed 12,000 white cells with 83 per cent polymorphonuclears. On Dec. 8, five days following onset of the illness, a vestibular examination was made—the caloric stimulus alone being used. At this time he presented the same spontaneous nystagmus as on admission, falling to the left. The right vestibular apparatus responded normally, cochlear function also being quite good. The left eighth nerve was found to be entirely nonfunctioning in both its cochlear and vestibular portions. Following vestibular examination a left myringotomy was performed to facilitate drainage of the middle ear.

Roentgen ray of the left mastoid showed an early exudative mastoiditis with no evidence of bone destruction. Because of the patient's good general condition operation was delayed. The vertigo and nystagmus diminished to a minimum on the twelfth day following the onset of his illness.

Eye examination on Dec. 18 showed the left pupil was larger than the right with both reacting to light and accommodation. Both eyes moved normally in all directions. The left optic disk was small and oval; the temporal side, very pale; the nasal side was red and blurred. The right optic disk was larger and well defined.

On Dec. 20, vestibular examination revealed no spontaneous nystagmus with a nonfunctioning left eighth nerve.

On Dec. 22, a left simple mastoidectomy was performed. Pus, granulation tissue, and necrotic bone were removed. The patient made an uneventful recovery and on Jan. 11, 1932, was discharged.

A vestibular examination, made on Feb. 2, 1932, revealed a functioning right eighth nerve with a nonfunctioning left eighth nerve (cochlear and vestibular).

5402 Chester Avenue.

Lack of General Education

Dr. William J. Mayo, of Rochester, Minn., retiring president of the Interstate Post-Graduate Medical Association of North America, recently assembled in Cleveland, made this statement in an informal discussion on the ways of educating lawyers and engineers as well as doctors: "Under our present form of education Americans as individuals are great men, but collectively we are a failure."

To quote from the *New York Times*, Dr. Mayo continued: "At present we throw together into Congress a group of men, each educated along his own narrow line. None has a broad general knowledge of the problems of his country." A general education of youth, ultimately would improve government.

"We have been teaching our youth too much memorizing of things out of the past. It does not matter one whit how much knowledge of the principles of medicine, law, engineering or any other profession a youth may have poured into his memory if he does not know how to use it."

He mentioned a "university course" for youths just out of high school being tried at the University of Minnesota, of which he is a regent, as a means of orientation for the young student. "We make it easy for him to browse," he said.

The youth who desires to practice medicine in the coal fields, he went on, "should know something of coal mining. The same is true of the man who is to prac-

tice medicine, law or anything else in agricultural country.

"Our present system of leading to a narrow cultural aristocracy does not allow that. Textbook indigestion, brought on by years of cramming down the knowledge poured into the youth, is not the wisdom of dealing with his fellow-man."

Automobiles were blamed by John J. Moorhead of the New York Post-Graduate Medical School, Columbia University, for "a terrific financial strain on every community" because of the unpaid hospital bills of injured motorists.

"The automobile," he said, "is a greater factor in injury production than the World War.

"Suppose a man and his family from New York, Illinois, or any other state, come touring through your city. They have an accident. They are taken to one of your hospitals. They receive treatment that runs anywhere from a single dressing to two or three weeks of hospitalization or even more.

"They recover. They tell you they are grateful for the treatment, but have no money to pay. There is nothing the hospital can do about it. Everybody is just out of luck.

"Since these cases result from travel by automobiles on the roads of the country, part of the road and gas taxes should go to community hospitals to compensate them for these cases."

EDITORIALS

NATIONAL HOSPITAL DAY

According to *Hospital Management*, Feb. 15, 1934, many hospitals are planning for National Hospital Day which will be celebrated May 12. There should be an increasing number of hospitals added each year to the list of celebrants.

The general arrangements for 1934 are under the direction of a special committee of the American Hospital Association of which Veronica Miller, Henrotin Hospital, Chicago, is chairman. A. R. Hazzard, superintendent, Easton Hospital, Easton, again has been appointed Pennsylvania State chairman for National Hospital Day.

A considerable amount of material in the way of suggestions for programs and publicity are available to the field, either by request of the chairman of the committee or directly to the American Hospital Association, Chicago, Ill. The American Medical Association is giving practical coöperation.

Hospitals are urged this year to prepare a form letter, to be sent to a selected list who have been patients in the hospital during the past three years; the letter to contain facts about National Hospital Day, an invitation to be present, some facts about the conduct of the hospital, and its problems. In this way a considerable number of the lay public will be authoritatively advised in regard to their community hospitals.

A low cost leaflet of purely educational value, is available to hospitals at nominal cost. It is suggested these should be purchased in quantities by hospitals at an early date, and supplied to clubs, churches, and associations that will hold meetings in April so that these groups may distribute the circulars at these meetings. These leaflets also may be inclosed in statements sent out by the hospital, at the office desk, or in the lobby of the hospital, and may be placed in the offices of the medical staff.

Governors of states and other leaders, and mayors of communities in which hospitals are celebrating should be invited. Contact should be made with local radio stations for announcements, programs, etc.

COMMITTEE ON APPENDICITIS MORTALITY

At its organization meeting the recently created State Medical Society Committee on Appendicitis Mortality adopted various suggestions

calculated to reduce the existing mortality from appendicitis. One of the suggestions was that a full page of *Warning* stickers appear in the JOURNAL. These stickers are to be attached by the physician to statements or other correspondence he may have with his clientele. The Board of Trustees have approved that this be done, and in the April number of the JOURNAL will be found as an insert a perforated page of gummed labels, 40 in number. The coöperation is sought of each member of the State Society to use these stickers. If all the members of the society followed this procedure, properly using the stickers, a life-saving message to 320,000 citizens of our Commonwealth will have been provided by the State Medical Society.

There will also appear in the April number of the JOURNAL a paper on "Acute Appendicitis," read by Dr. John O. Bower, of Philadelphia, at the Annual Session of our State Medical Society, held in Philadelphia, Oct. 2 to 5, 1933. The paper constitutes a plan for the reduction of mortality of acute appendicitis in the State of Pennsylvania. This plan was adopted by the House of Delegates, and a special Committee on Appendicitis Mortality, was appointed, of which Dr. Bower was made chairman.

On page 508 of this issue of the JOURNAL will be found the "Minutes of the Organization Meeting Committee on Appendicitis Mortality."

ANNALS OF SURGERY

Volume XCIX, No. 1, of the *Annals of Surgery* appeared as the January, 1934, number, all dressed up "in a gilded cage." The occasion being the Golden Jubilee Year celebration of this journal.

As stated by the editors "the ninety-six pages which composed the initial number have grown to one hundred sixty, each page containing nearly double the amount of material which the original page presented. . . . In the first issue of the *Annals* appears the report of the proceedings of the New York Surgical Society session of Oct. 14, 1884. From that time to the present this important record has been continued. In the number for June, 1893, appeared the first report from the Philadelphia Academy of Surgery, being the Transactions of that Society for March 6, 1893. In 1928 the American Surgical Association also accepted the *Annals* as its official organ."

This January, 1934, number of the *Annals*, contains an article "A Biographical Picture of a Master of Medical Literature," a tribute to its editor Dr. Lewis Stephen Pilcher, by Dr. James P. Warbasse, of Brooklyn, N. Y., the former hospital intern, later associate surgeon, and long time friend of the editor. Dr. Pilcher, now 89 years of age, is still editor of the *Annals*, which he initiated in 1884, and which was acquired in 1897 by the J. B. Lippincott Company of Philadelphia. Dr. Pilcher was editor of: *Annals of the Anatomical and Surgical Society* for the 3 years 1878 to 1880, inclusive; and 1881 to 1884, its continuation as the *Annals of Anatomy and Surgery*, which was further continued as the *Annals of Surgery*. Thus 57 years in the editorial chair, establishes him as the dean of living medical editors in the United States, if not in the world."

This number of the *Annals* also contains an In Memoriam of the late John Chalmers Da-Costa, of Philadelphia, by Dr. John H. Gibbon.

Congratulations and best wishes to the *Annals of Surgery* and to its most estimable and distinguished editor, on the celebration of the Golden Jubilee Year.

HEALTH RECOVERY CAMPAIGN

Progress made in combating tuberculosis has been aided greatly through the coöperation of citizens generally and of public and private health agencies.

In the front line stands the physician in his private office or in the clinic. Behind him, and supporting him, stand the nurse, the sanatorium, the health department and the tuberculosis society.

In these days of economic reconstruction it is well to consider the effect of the past few years on our health status and the problem ahead.

Health conditions have shown improvement in many respects. Preventable diseases, such as tuberculosis, typhoid fever, and diphtheria, have been less frequent or less fatal during the depression. This is hardly an accident. It can be attributed to scientific resources not available in previous years and to an increase in the understanding of the rules of right living.

It is well to realize, nevertheless, that these years of worry, underfeeding and neglect of health measures have left scars. This is especially true among children.

It is well to recognize likewise that neither the individual, the family, nor the community group, working alone can fully protect their health.

As one means of increasing public apprecia-

tion of the benefits derived from public health services, and to cause the public to demand adequate public health service, an educational campaign will be conducted beginning April 1, by the tuberculosis societies.

Known in previous years as the Early Diagnosis Campaign it is designated this year as the Health Recovery Campaign. The slogan is:

"Tuberculosis Robs You—Public Health Protects You."

Organized on a country-wide basis by the National Tuberculosis Association this effort in Pennsylvania is carried out by the Pennsylvania Tuberculosis Society (311 S. Juniper St., Philadelphia) and its affiliated organizations, in co-operation with physicians, public health, and other agencies. The special material made available includes literature under these titles:

"Tuberculosis Robs You—Public Health Protects You."

"You Don't Say." (Challenging facts about public health and economy.)

"Mr. Taxpayer Goes Shopping."

Other literature of special interest to physicians includes:

"Your Part in the Cure." A reprint giving helpful hints for taking the cure in the home.

"Roentgen's Ray." A reprint giving authentic facts about the discovery and use of the roentgen ray.

"History of Artificial Pneumothorax in America."

"Myers, Stewart, Harrington Reprint." Three related papers giving an excellent summary of our latest knowledge of childhood tuberculosis.

Speaking on the problem "Health in National Recovery," Dr. Haven Emerson, president of the American Public Health Association, makes this striking comment:

"Neglect of disease robs not only the patient but the whole family. For the sake of national recovery we must insist individually and collectively upon support of both public and private health agencies. We must make it possible to say to our children that health prospered in the U. S. A. not only during the downgrade but throughout the struggle upward from a depression that tested the very structure of contemporary society."

REGULATION OF NARCOTICS IN THE HOSPITALS OF PENNSYLVANIA

(The following correspondence has been received from Chairman I. D. Metzger of the Pennsylvania State Board of Medical Education and Licensure which we ask our members to read for their guidance regarding the regulation of narcotics in the hospitals of Pennsylvania.—*Editor.*)

Pittsburgh, Pa.
Jan. 26, 1934.

Editor, PENNSYLVANIA MEDICAL JOURNAL,
230 State Street,
Harrisburg, Pa.

Dear Sir:

We are enclosing herewith a copy of a letter received from J. H. Anslinger, Commissioner of Narcotics, Washington, D. C., which definitely states the regulation of narcotics in the hospitals of the State. This decision countermands a decision given to Mr. John M. Smith, director of Hahnemann Hospital, Philadelphia, and distributed by him to the hospitals of the State.

Because of this change of regulation the State Board of Medical Education and Licensure at its meeting on January 24 requested the Chairman to submit to you for publication in your JOURNAL this letter from the Commissioner at Washington.

We trust you will find it convenient so to do.

Yours very truly,

I. D. METZGER, M.D., *Chairman,*
State Board of Medical Education
and Licensure.

TREASURY DEPARTMENT
BUREAU OF NARCOTICS
WASHINGTON

Jan. 16, 1934.

Dr. I. D. Metzger,
Chairman, State Board of Medical
Education and Licensure,
Department of Public Instruction,
520 South Aiken Avenue,
Pittsburgh, Pa.

My Dear Doctor:

I have received your letter of Dec. 26, 1933, in connection with the matter of regulations governing the dispensing of narcotic drugs in Pennsylvania hospitals by interns. On account of the importance of this matter and the necessity for some careful study of the circumstances I hope you will pardon the delay in replying to your letter.

I wish to state at the outset that there is no intention on the part of this Bureau to adopt any regulation with reference to the dispensing of narcotic drugs in hospitals that would be contrary to the law of Pennsylvania and the rules of your State Board. I feel confident that the District Supervisor of this Bureau at Philadelphia, in approving regulations issued by the director of Hahnemann Hospital at Philadelphia for the ordering and administering of narcotics in that institution, was under the impression that interns were authorized by the State law to prescribe or dispense drugs in the hospitals as physicians. As you state, medical graduates in many States are required to be licensed before they can practice even in an incorporated institution such as a hospital. In the absence of evidence to the contrary, this impression of the District Supervisor would seem to me to have been confirmed by regulations issued by the Hahnemann Hospital, inasmuch as he probably assumed that the hospital authorities were correctly interpreting the State law in describing interns as physicians authorized to administer narcotics to hospital patients.

Your letter makes it quite clear that interns in hospitals in Pennsylvania under the State Medical Act are pursuing the fifth year of their medical education and are not and cannot be licensed under the Pennsylvania law until after the completion of this fifth year of medical education. Furthermore, you also explain quite

clearly that the responsibility in prescribing or dispensing narcotic drugs to patients in the hospital invariably rests with a licensed physician who supervises the activities of interns in their professional work. This being the case, I take pleasure in reporting that the District Supervisor at Philadelphia is today being instructed that the approval heretofore given by him to the regulations of the Hahnemann Hospital be withdrawn in so far as said approval relates to the paragraph relative to interns and their right to prescribe and dispense narcotic drugs. He is also being instructed to advise the Hahnemann Hospital authorities of the correct rule, in accordance with your letter of Dec. 26, 1933. I wish to emphasize that I am heartily in accord with the spirit and purpose of the State law of Pennsylvania with reference to this matter of supervising the dispensing of narcotics in hospitals by interns because I am of the opinion, without reflecting in any way on the good faith of the graduates of a four-year medical course, that the supervision of the more experienced physician has the effect of impressing upon them the care which must be exercised in dealing with narcotics.

I deem it appropriate in this connection to invite your attention, in the event it has not already come to your notice, to a report of the Committee on Narcotics of the American Hospital Association which was rendered, I believe, in the latter part of 1931, dealing with the general subject of control and record keeping of narcotics in hospitals. This committee was composed of Dr. John D. McLean, chairman, Rush Hospital, Philadelphia, Pa.; Dr. Donald Smelzer, Graduate Hospital, University of Pennsylvania, Philadelphia, Pa.; and Dr. J. L. McElroy, Medical College of Virginia Hospital, Richmond, Va. These gentlemen prepared a form of "Record of Narcotics Administered" and of "Narcotic Order" which they submitted to this Bureau for approval and which forms were later published in the form of a leaflet with certain printed instructions attached that this Bureau considered of great value to those charged with hospital administration. I do not know how widely this leaflet was distributed but I hope the American Hospital Association found it convenient to make the leaflets available to hospitals generally throughout the United States, as the information contained therein is not only most helpful to hospital authorities but, if duly observed, should avoid any difficulty that might otherwise unwittingly arise with reference to compliance with the provisions of the Harrison Narcotic Law, as amended.

Very truly yours,

H. J. ANSLINGER,
Commissioner.

Pittsburgh, Pa.
Feb. 2, 1934.

F. C. Hammond, M.D., Editor,
PENNSYLVANIA MEDICAL JOURNAL,
Harrisburg, Pa.

My Dear Editor:

Ever since the intern law went into effect, Jan. 1, 1914, the State Board of Medical Education and Licensure of Pennsylvania has consistently insisted upon the fact that interns under training in a hospital in the State have no right to assume any authority in the care of patients. Their moral right to treat cases may have increased with their medical training, but their legal right has not. Their clinical privileges, therefore, are assumed at the risk of the doctors whom they assist. If these are not carefully guarded by the licensed physician, and if the activities of his intern are not critically

supervised, a dangerous legal situation may arise. This may involve both of the physicians and also the institutional authorities.

The right to practice medicine is a personal concession granted by the State and cannot be delegated to an impersonal organization such as a hospital or clinic; nor can it be transferred to another person. Efforts to do so are looked upon as a conspiracy to violate the medical act and involve the licensure of the legalized physician as well as the character of his associate.

Obviously, therefore, every physician within or outside of an institution who assumes any clinical responsibility in the State should be licensed to practice medicine therein. And, while a hospital assumes authority in the care of patients in seeing that the instructions of the attending physician, when properly recorded, are followed out, the ultimate bearer of legal burdens relative to his case is the licensed physician in charge.

Hence it naturally follows that all orders, whether for medication, diet, or management, shall be issued by this licensed chief. If written by his intern, they must be approved by this chief. If dangerous drugs such as narcotics are ordered, prompt and definite approval or disapproval should be made on the part of the chief by his signature. P. R. N. and other indefinite orders which give discretionary power to legally irresponsible persons are dangerous and cannot be tolerated by the State Board. An unwarranted loss of narcotic drugs in some hospitals of the State indicates that in the past these lax regulations have permitted the diversion of these drugs into illegitimate channels.

The opinion given to Mr. John M. Smith by L. J. Ulmer, Supervisor of the Philadelphia District and referred to in the accompanying letter from the Commissioner, accepted an impersonal hospital registration and legal rights delegated to intern and nurses as meeting the Federal requirements. This opinion has now been revoked, and regulations which are consistent with the medical act and with the regulations of the Board in compliance therewith have been substituted by the ruling of Commissioner Anslinger. His letter should be carefully read and noted.

Respectfully submitted,

IRVIN D. METZGER, M.D., *Chairman,*
State Board of Medical Education
and Licensure.

PENNSYLVANIA TUBERCULOSIS SOCIETY

The Forty-second Annual Meeting of the Pennsylvania Tuberculosis Society was held at Harrisburg, Jan. 23 to 24, 1934. Four new directors were elected and officers renamed. New directors are: Dr. H. D. Lees, director of student health service at the University of Pennsylvania; Rev. Robert J. Gottschall, Norristown; Dr. Fred B. Wilson, medical director of the Beaver County Tuberculosis Sanatorium; and Col. Henry W. Shoemaker, of McElhattan and Altoona, former minister to Bulgaria.

Officers reelected are: Dr. C. Howard Marcy, Pittsburgh, president; Dr. H. R. M. Landis, Philadelphia, first vice-president; R. S. Knapp, Easton, second-vice-president; Dr. Ward Brinton, Philadelphia, secretary; Milton D. Reinhold, Philadelphia, treasurer; Thomas Raeburn White, Philadelphia, solicitor.

Directors renamed for two-year terms are Miss Matilda P. Blight, Towanda; William W. Comfort, Ph.D., Haverford; Dr. Charles R. Essick, Reading; George

K. Frank, Erie; John M. Groff, Lancaster; Francis B. Haas, Ph.D., Bloomsburg; Frank A. Hover, New Castle; J. William Hardt, Dr. Charles J. Hatfield and Milton D. Reinhold, Philadelphia; D. Edward Long, Chambersburg; Dr. W. F. Kunkle, Williamsport; Walter G. McBlain, York; Miss Ida McWilliams, Shamokin; Dr. Charles H. Miner, Wilkes-Barre; Hon. Gifford Pinchot, Milford; Dr. J. P. Ritenour, State College; Dr. L. D. Sargent, Washington; Charles E. Torrance, Altoona; A. K. Wright, Clearfield.

The following resolutions were adopted:

Resolved, That in looking toward the next session of the General Assembly when appropriations for governmental services will be determined, it be urged upon the Governor and all members of the General Assembly that it be definitely and certainly planned that the Department of Health shall be provided with funds sufficient to assure no further curtailment of its services.

It is safe to believe that the favorable position of Pennsylvania with regard to the public health at this time as indicated by the lowest death rate in the history of the State Bureau of Vital Statistics is due largely to the disease prevention and health promotion services provided by the Commonwealth to its people through the Department of Health. The health safeguards built up and the services established must be maintained even if at the sacrifice of some other government activities. The provision of adequate and effective public health service, in accordance with present-day needs and standards, is the first responsibility of the State and of every municipality.

WHEREAS, Tuberculosis is an enormously wasteful disease, in lives taken, the number of persons constantly ill, and in economic and social cost, and

WHEREAS, This malady is so widespread in the population and is so infectious as to be a menace, especially to children and young persons in every community, and

WHEREAS, It has been positively determined by experience that effective application of modern knowledge of tuberculosis prevention and control measures depends to a large extent upon informed and active interest on the part of the persons generally and of their willingness to coöperate with physicians, public health, educational, and other agencies in combating the disease, and

WHEREAS, The main burden of economic, social and all other cost of tuberculosis is based upon the shoulders of the people, therefore, be it

Resolved, That there continues to be pressing need and every justification for vigorous organized effort on the part of the citizens in every community to assist, especially by means of health education, demonstration, stimulation, and private financial support, in the fight to prevent and conquer tuberculosis, and be it further

Resolved, That because of its knowledge of tuberculosis as a medical, social, and economic problem; the active medical advice and participation in its activities and management; its strong, widespread, and effective organization; the confidence of the people which it has, and its recognized accomplishments, it be understood and urged that the best and most effective means of citizen help in the fight to overcome tuberculosis is through active identification with and support of the nation-wide organization embodied in the National Tuberculosis Association and the State and local agencies affiliated with it in Pennsylvania and every other state in the country.

Care of tuberculous patients in general hospitals was urged and the work of the voluntary tuberculosis societies commended by Dr. Donald Guthrie, of Sayre,

president of The Medical Society of the State of Pennsylvania. After declaring that "indigent tuberculous cases should be wards of the State," Dr. Guthrie explained that many of these patients could be cared for in general hospitals. This is done in Europe and in some hospitals in the United States. The plan would relieve the present overcrowding in sanatoria and reduce the large waiting list of patients who should have sanatorium or hospital care. There is no risk of contagion in treating tuberculous patients in general hospitals. Very ill tuberculosis patients and those requiring surgery should be treated in hospitals.

In this connection, Dr. Guthrie expressed the belief that Christmas Seal funds which support the work of tuberculosis societies affiliated with the Pennsylvania Tuberculosis Society should not be devoted to hospitalization of active cases. He stated that the reduction in tuberculosis mortality is due to education of the laity; prevention of tuberculosis through education; work among children; case-finding methods; and isolation of known cases. This comprehensive program requires central organization. This in turn creates an expense which the laity and some of the profession cannot fully understand. Morbidity of tuberculous cases far exceeds morbidity of any other disease. Criticisms about the expense of organization are unjust and suggestions that money raised from the sale of Christmas Seals be used for the actual treatment of tuberculosis patients are impractical, because the cost of hospitalization would exceed the income. The societies' funds should be used as in the past and not be given over to the treatment of patients with tuberculosis. It is important during these times, to cut down the expense of organization wherever possible and to work in close association with the medical profession, particularly the county medical societies, so that the policy of the tuberculosis society may be understood and appreciated.

Dr. R. H. McCutcheon, medical director of the State Sanatorium, at South Mountain, stated that to permit tuberculous or seriously infected children to engage in competitive athletic sports, such as football, baseball, basket ball, or track, may be little short of murder. The responsibility of school authorities in this problem was emphasized.

No high school should permit its pupils to engage in extra curricular activities unless it is known that they are not seriously infected by the tubercle bacilli. Ignorance of the child's true state of health can no longer be excused on the part of the school boards or school health authorities.

That it is impossible to pick out the definitely tuberculous child or the seriously infected child by the routine methods of examining the school child is appreciated and the general use of the Mantoux and the roentgen-ray tests in all schools, especially from the sixth grade through high school, is favored as the only diagnostic methods satisfactory and accurate. Such a program will more than repay the time and expense involved in eliminating the contagious case of tuberculosis from the classroom, in enabling proper treatment to be started on those found to be seriously infected, and by safeguarding those less seriously infected by forbidding their taking part in extra curricular activities, especially competitive sports, and insuring adequate rest and sleep for them until the roentgen ray shows their lesions to be well healed. Such a school health program is vital if the annual 6 per cent drop in deaths from tuberculosis is to continue through the years following the present industrial crisis when the youth of our nation may be preparing their bodies for

ill health instead of good health. We must not forget that overfatigue and starvation in the presence of infection by the tubercle bacillus are still the greatest causes of tuberculous disease and that this disease is still the greatest menace to the health of our children of school age.

Tuberculosis prevention is rightly a function of school health work and is deserving of much greater emphasis than it has been given heretofore. In fact it is in the schools both graded and high that the greatest part of our antituberculosis work must be done if we are to regard the mortality statistics of the past decade. A more thorough understanding of this vital school health problem on the part of the parents, teachers, and school health authorities should lead to more perfect coöperation and should create a demand from these sources for school examinations which will give complete knowledge of the child's physical condition in relation to tuberculosis as well as to teeth, tonsils, and eyes.

JOINT MEETING OF THE PHILADELPHIA COLLEGE OF PHYSICIANS AND THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE

At the joint meeting of the College of Physicians of Philadelphia and the American Academy of Political and Social Science held at Irvine Auditorium, Feb. 7, the following papers were read: "A Sociologist Looks at the Doctors," James H. S. Bossard, Ph.D., professor of sociology, University of Pennsylvania; "Abuses of Medical Charity and of the Free Services of Physicians," Nathan B. Van Etten, M.D., New York City; "Medical Practice and Public Needs," Edgar Sydenstricker, director of research, Milbank Memorial Fund, Statistician United States Public Health Service; "Historic Developments: European Experience in Medical Organization," Henry E. Sigerist, M.D., professor of medical history, Johns Hopkins University; "Canadian and British Experience in the Economics of Medical Practice," Grant Fleming, M.D., professor of public health and preventive medicine, McGill University; "The General Practitioner: His Place in the Medical Profession," Roger I. Lee, M.D., Boston, Mass.; "A Layman's View of the Medical Problem," Michael M. Davis, director for Medical Services, Julius Rosenwald Fund, Chicago; "Tomorrow's Health Services," Thomas Parran, Jr., M.D., commissioner of health of State of New York, Albany, N. Y.; "The Doctor and the State," Morris Fishbein, M.D., editor of the Journal of the American Medical Association; "Doctors, Patients, and the Community," by William Trufant Foster, LL.D., Newton, Mass.

This meeting proved to be a battle of medical factions, and warnings were issued by our opponents that continued exhibition of "stubbornness" and use of "inane shibboleths" by leaders of the medical profession in the question of socialized medical practice may lead to an unnecessarily drastic form of state medicine.

That our members may have further information, the following publicity, a specially written report of the conference by Mr. John M. McCullough, is reproduced from a Philadelphia newspaper to show lay reportorial reaction.

Long smoldering fires of dissension between two clearly divided schools of thought in the American medical profession burst into enthusiastic flame yesterday within the classic walls of Irvine Auditorium on the University of Pennsylvania campus.

The occasion was a joint meeting of the Philadelphia College of Physicians and the American Academy of Political and Social Science on the general topic, "The Medical Profession and the Public: Currents and Countercurrents."

Before the session's meeting had been duly entered in the academy's proceedings, those present, including a number of distinguished Philadelphia physicians and surgeons, heard the American Medical Association characterized as reactionary, nonrepresentative of the profession generally, ruled by a "recalcitrant minority," the mouthpiece of "an ostrich philosophy," and high priest of the medical status quo.

ANSWERS CRITICS

Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, at whose person and writings the bulk of the criticism, it was understood, was aimed, addressed last night's session, and he took up the gauntlet with joy, in a special two-page insert in his previously prepared speech.

In it, he asserted that nonmedical groups are seeking to dictate to the physician and the surgeon how he can treat his patients, that they are seeking to destroy, for selfish motives, the essential individualistic basis of the relationship between physician and patient.

Continuing, Dr. Fishbein declared that the majority report of the Committee on the Costs of Medical Care—to which the *Journal* entered violent opposition—has "lapsed into a state of innocuous desuetude" and "is kept alive only by the propaganda which is financially sustained by the Milbank and Rosenwald Funds."

He definitely declared that several of the speakers, having such fund affiliation, are subsidized propagandists for carrying out the "program of socialization of medical care," to which the Milbank Fund, in particular, he said, is pledged.

Now, what's it all about?

CRITIC SPEAKS

The Committee on the Costs of Medical Care, to quote Dr. Michael M. Davis, director of Medical Services of the Julius Rosenwald Fund, who spoke during the afternoon, and was one of the A. M. A.'s and Dr. Fishbein's most outspoken detractors:

".....recommend a fuller planning and organization of medical practice, and an extensive use of the principle of insurance as a means for distributing the uneven and unpredictable costs of medical care so that they would not fall with crushing weight upon some of the people all year."

In other words, a great many of the people of the United States either don't have access to or haven't the money to pay for proper medical care (the committee asserted), while, on the other hand, a great many doctors and dentists are living in what amounts to a pauper state because they cannot support themselves, in many cases largely because they practice among the indigent classes.

URGE GROUP MEDICINE

The solution to the problem, in the opinion of the Committee, and in the opinion of its numerous endorsers, is some form of "group medicine," or social insurance, paid for by the taxpayers and distributed through a regimentation of medical services.

No single specific program for the carrying out of the general theme of supplying good medical service to all of the people who ought to have it and can't pay for it was presented by the proponents of that philosophy yesterday.

The meeting, it soon became apparent, was ringed about by alien camp fires, and before the afternoon had come to a close, it was definitely ascertained that a reputable part of Philadelphia's medical profession is in violent opposition to the whole scheme—lock, stock, and barrel.

They assert that good medical care not only is available, but is being supplied; that there are not too many, but not enough physicians; and that the whole situation has been provoked by industrial and wealthy interests for selfish purposes, in order to secure a reduction in the industrial loss due to sickness.—*Philadelphia Inquirer*, Feb. 3, 1934.

Dr. Henry E. Sigerist detailed how full medical care is provided by every European country for its citizens of the lower income groups, on an insurance basis, and declared no European country ever would consider abandoning the system of medical insurance.

Dr. Thomas Parran, Jr., Commissioner of Health of the State of New York, declared he felt "we have had enough of controversy," and observed that "extremists, whether reactionary or radical, do not contribute to progress—the usual result of their labors is to impede it."

A plan under which the individual could make an annual stated payment and then receive medical care from the county medical society has been proposed by the California State Medical Society, Michael M. Davis, Ph.D., of Chicago, director for medical services of the Julius Rosenwald Fund, reported. Some of the local county societies, including that in Los Angeles, have put the plan in operation, he added. Similar plans are in operation in Washington and Oregon. Mr. Davis charged that the American Medical Association is bringing influence to bear to prevent such experimentation elsewhere.

"Another chapter for 'Alice in Blunderland,' was the characterization applied to the health dilemma of America by William Trufant Foster, well-known economist. He said,

"At least 100,000 persons in the United States sorely need hospital care today, but are not getting it. The answer seems to be that only two-thirds of the beds in our private hospitals are in use, and the hospitals do not know what to do with their surplus capacity."

"At least 70,000,000 persons in the United States whose teeth are decaying are not receiving adequate dental care. That is because this country leads the world in dental science and has tens of thousands of partially unemployed dentists."

"Many millions of men, women, and children suffer from other preventable diseases. Why is nothing done about that? The answer is that the science of preventive medicine has made marvelous advances in recent years, and tens of thousands of competent physicians are eager to use their new knowledge and their idle hours to save humanity from needless suffering."

"Under present conditions, the best medical care is available only to the very poor and the very rich. Physicians have made miraculous progress in their science, have shown an almost unparalleled professional spirit in making the results of their research available to mankind, and have shown a willingness, especially the family doctors, to risk their lives and to serve suffering mankind without regard to money reward. Yet in the distribution of benefits, medicine has made intolerably slow progress."

Under the prevailing form of medical service—private individual practice—more than 80,000,000 persons in the

United States either do not receive the care which they need, and which readily could be provided, or are heavily burdened by its cost. At the same time, many competent practitioners and agencies are underemployed and poorly paid.

Medical services, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associated personnel, preferably around a hospital, on a group-payment basis, through insurance or taxation.

This whole program is bitterly opposed by those unprogressive persons who have acquired control of the American Medical Association.

This is not a conflict between patients and doctors. It is a conflict between reactionary and progressive doctors.

Dr. Foster concluded as follows: The American people are likely to be impatient of those who do nothing to aid experimentation, and having nothing themselves to propose except the philosophy of keeping things as they are. The public has a right to demand, and he believes the intelligent American consumer does demand, at least these five elements in the care and protection of his health:

1. He wants medical service not as a charity, but paid for on a basis consistent with the self-respect of American citizens.

2. He wants a medical service which is so organized as to furnish him with continuous contact with a personally interested physician and which does not confuse and subdivide him among a number of independent competing specialists.

3. He wants a system of paying for medical service which will develop the maximum paying power from his income, and remove the hazard of unexpected sickness bills occurring at the time when his paying power is usually least.

4. He wants a system of payment which will stimulate the prevention rather than the care of sickness.

5. He wants good hospitals which are available to him geographically and financially.

These demands of the consumer of medical service are consistent with what the physician also desires and the American public is sympathetic with and will support the demands of physicians and other professional workers for adequate and stable compensation, for the maintenance of high professional standards and for opportunity to keep abreast of advances in the science and art of medicine. In the pursuit of these aims, the public and the professions have a joint interest at stake. Neither can secure what it wants without the coöperation of the other.

Speaking on "A Sociologist Looks at the Doctors," Dr. James S. Bossard pointed out that the great mass of people are coming to look upon medical service as they do upon education and police protection—as rights in a modernized democratic society. All these conflicts are complicated by the attitude of many leaders of the medical profession. Being well entrenched, and with no difficulties of earning a livelihood, they are reluctant to face any changes. Being well off, they are interested in maintaining the status quo.

The danger is that they may be too arbitrary. This would be unfortunate. If the sociologist's study of similar situations of social conflict confers any privilege of making a prediction, it would be this: Entrenched stubbornness can lead only to violent reaction. Perhaps this means that a refusal to socialize medical service is to ride directly into the storm of state medicine.

He traced the development of the present public atti-

tude on medical care to the increasing activity of governmental agencies in health work in schools, in the Army and Navy, in industrial establishments.

Bringing all these developments together, it appears that in school, in military service, in industry and through governmental agencies, we have developed an organized, effective, socialized medical and health service, gratuitously given to a large proportion of our population.

We cannot become accustomed to one set of values in regard to medical service when we are in school, in the Army, and at work, and then have a separate set as a private individual and member or head of a family.

What has been happening, logically and inevitably, has been a carryover to the end that those experiences in school, Army and workshop have led to the creation of a new social attitude toward health and health service.

Dr. Bossard said one difficulty in the present set-up is the maldistribution of doctors' offices about the city. He quoted from a survey made under his direction, which showed that while there is one office for every 29 persons in the downtown area of Philadelphia there is only one for every 1216 in Kensington and Frankford and one for every 1910 persons in southwest Philadelphia, in the 40th ward.

Citing specialization as another complication in the medical problem, he remarked: "In addition to the difficulty of finding a neighborhood doctor, there is the added difficulty of finding one who is interested in the patient's particular ailment."

Mr. Sydenstricker, whose paper was read by Dr. I. S. Falk, formerly associate director of the Committee on Cost of Medical Care, emphasized the necessity of sweeping aside certain taboos and shibboleths which have sprung up in the discussion of socialized practice.

The principal taboo that we ought to get away from, he said, is that medical practice is a mysterious and sacrosanct realm into which no one, save the physician, can enter, and at whose portals all others must genuflect.

This is a stultifying taboo easily dissipated by a moment's rational thinking. Society, for its own protection, has determined the qualifications of those who practice medicine, and, having set these standards, has given physicians the right to decide what shall be practiced.

But society always has had and always will have the power and the right to determine how medicine is practiced, how public health and welfare can best be prompted thereby.

Peculiarly inane also are the familiar shibboleths, "socialism" and "rugged individualism" and the like that appear in discussions of medical practice in relation to public needs.

COMMENTS AND EXCERPTS

Science and Research

The United States Bureau of Home Economics has completed an investigation to determine the content of vitamins G and B of the inner bleached leaves and the outer green leaves of head lettuce. Results of this investigation indicate that the vitamin B content of the bleached leaves is about twice that of the green leaves; and the green leaves are about three times as rich in vitamin G as the bleached leaves.

According to Dr. M. J. Shear, of the United States Public Health Service, adjustment of the mineral content of the blood for treatment of cancer is not justified

by laboratory findings. Dr. Shear's study, which dealt largely with the rôle of sodium, potassium, calcium, and magnesium in cancer, showed no relation between cancer development and the amount of these minerals in the blood stream. He found that actively growing tumors contain more potassium and less calcium than do old tumors which are developing slowly.

To quote the *United States Daily*, a vaccine to immunize humans against anterior poliomyelitis may be the outgrowth of experiments which have recently been conducted by the Bureau of Laboratories of the City of New York. Dr. H. M. Park, director, who is in charge of the development of the vaccine, says that he is working along the same lines as Pasteur did "to find a serum which will not be too dangerous to administer." Though Dr. Park warns against placing too much emphasis on the results of his experiments with the vaccine, he has succeeded in immunizing monkeys and other animals for varying periods.

According to *Science News Letter*, a new yardstick of safety for the operating room was described at the Congress of Anesthetists by a British anesthetist and a physician, Dr. W. Stanley Sykes, of Leeds. With this yardstick, called the energy index, surgeons and anesthetists can determine with mathematical precision the risk of operating on any patient. The index is determined by adding the systolic and diastolic blood pressures and multiplying the sum by the pulse rate. As the heart's load increases or decreases from the normal of 14,400 mm. per minute, the risk the patient runs in being operated on becomes greater. If the reading is higher than normal it is because the heart has enlarged to take care of a greatly increased load of work. If the reading is lower than normal, it is because the heart has given out entirely under the load and the energy it can expend has decreased. This index of energy gives in millimeters of mercury the mathematical load under which the patient's heart is laboring.

According to an article in *White Metal News Letter*, the invention of the toothbrush grew out of the famous Gordon Riots of 1780, in London. At this period, the cleaning of teeth was a crude process, carried out by a single, chisel shaped twig, which was rubbed over the teeth with an up-and-down motion. William Addis, the inventor, being sought as an alleged participant in the riots, was hiding in the home of a leather tanner and to amuse himself spent some time carving bone. Wanting a better device for the process of cleaning his teeth, Addis bored some holes in a piece of bone, and having cut some hairs from the tail of a cowhide, thrust these into the holes he had made in the bone, and thus became the maker of the first toothbrush.

Drs. J. D. Allen, Jeshill Love, and E. H. Sandlin, of Louisville, Ky., have announced a new method of giving children resistance to scarlet fever. This method is claimed to develop a more lasting immunity more quickly and with fewer and smaller doses than the method that is now in use. Instead of using a toxin produced by the scarlet fever organism to develop immunity, the Louisville physicians employ "phagoid," a preparation that is similar to the bacteriophage. During an epidemic of scarlet fever in Louisville schools, at the request of the city health officer, the new method was tested. None of the children who received the first dose of the phagoid developed scarlet fever, and the epidemic was immediately controlled.

After a three-year survey, a committee of the New York Academy of Medicine has found that nearly two-thirds of mothers dying in childbirth could have been saved if they had received proper care. This committee claims that physicians are responsible for three-fifths of the preventable deaths; the patients, for more than a third; and midwives for about 2 in every 100 deaths. Lack of judgment and skill or careless inattention to the demands of the case were faults of the physicians. The patients' fault was a failure to take advantage of facilities for safeguarding themselves. This committee believes that the number of deaths can be reduced by reducing the amount of surgical interference during birth, surgical procedures being resorted to 4 or 5 times more often than actually necessary. The death rate in these cases is 5 times as high as in spontaneous births.

Death for Reckless Driving

Some sort of record for severity in dealing with reckless driving seems to have been set by the Russian court in Moscow, which recently imposed the death penalty on a motorist who let his car get out of control, caromed into a marching column of troops and caused the death of four men.

This sentence is all the more astounding when one considers the fact that, except in cases of counter-revolutionary activity, Russian courts are reluctant to impose the death penalty at all, even for cold-blooded murder.

It isn't likely that very many Americans would favor the adoption of such stringent measures in this country. Nevertheless, there is something to be said for the adoption of extreme severity toward the man who handles his car so poorly that he destroys the lives of his fellow-men.

We have a lot of public menaces of that variety in America.—*The News-Tribune*, Beaver Falls, Pa.

MEDICAL ECONOMICS

Child Health Recovery Program in Maine.—According to the *Maine Medical Journal*, December, 1933, an editorial on "Child Health Recovery Program" states that the medical profession of Maine has been requested to check up the undernourished children of that state. They are requested to report such cases as come to their notice and to call attention to the emergency on any and all occasions. It would seem from the editorial that malnutrition is not an important factor in Maine.

Radio Broadcasting.—The *Legislative Bulletin* of the Medical Society of the State of New York calls attention to the many complaints that have been received recently regarding certain objectionable radio programs; namely, those of the Crazy Water Crystals Company, Father John's medicine, and Mount Clements mineral water. The New York State Medical Society is endeavoring to find a way to prevent their continuance, but is confronted with a very difficult matter. These companies hold contracts with the national broadcasting companies, which claim they are not violating any law. These commercial-minded companies are not inclined to respect any Code of Ethics.

Medical Economics at the Chicago Medical Society Meeting.—At the meeting of the Chicago Medical Society, held on Jan. 17, Dr. Francis Ashley Faught, chairman of the Commission on Medical Economics of the Philadelphia County Medical Society, by invitation, read a paper on medical economics.

When the session was called to order at 8:30 p. m., the large auditorium was comfortably filled; in spite of this, the chairman took occasion to remark on the evident lack of interest of the members of the society in medical economics, expressing the belief that the importance of the subject should have more than filled the auditorium. It seems to Dr. Faught that the doctor's indifference to his economic welfare is the same in Chicago as it apparently is in Philadelphia.

In the paper on medical economics, read before the Chicago Medical Society, F. A. Faught, chairman of the commission on medical economics of the Philadelphia County Medical Society, stressed the vital need of a better planned unity, agreement, and continuity of thought among the doctors, emphasizing the demand for definite plans that the present economic readjustments are making, and the responsibility of the medical profession in assuming leadership in this regard. The individual physician must needs familiarize himself not only with the local problems of his own community, but with the basic principles that affect the interests of the physicians in a national way. The essayist pointed out the seriousness and extent of the problems confronting us and showed the need for prompt and persistent but none the less well-considered activity. The dangers inherent in the F. E. R. A. program for medical relief were mentioned as well as its laudable advantages. In all such undertakings organized medicine must take the lead persistently, fearlessly, and intelligently. Our outstanding aim should be to discover a way to assure the private practitioner the ability to give good quality sickness service to all classes of people, whether able to pay or not, meanwhile preserving to himself and to the medical profession the practice of medicine.

The demand for efficient leadership, as well as medical organization supplemented by comprehensive study of the problems confronting the profession, was offered as the only means of curtailing the advances of the insidious forces from without that threaten the integrity of independent practice. Many embarrassing situations are possible from proceeding upon the basis of incomplete information. In consequence the speaker expressed his conviction that the study of medical economics should be undertaken with great care, avoiding preconceptions and bias points of view, and relieved entirely of the odium of money-gain seeking. It should be understood by all participants that our plan of action must revolve around good ethics and be founded upon the altruistic purpose of providing the best possible medical service to the public. Personal or selfish interests have no place in such a program. Commercialization of medicine, as has been proposed in certain high places, does not conform to the principles just enunciated. Resistance to such schemes, which certainly involve exploitation and unfair competition, must be entertained if the high ideals of our calling are to be retained. The practice of medicine must be preserved to the medical profession for all time.

The value of intelligent propaganda, supplemented by comprehensive investigation, was emphasized frequently. Utilization of the national and state organizations has its limitations in this respect but the county medical societies possess an influence which if exercised to its fullest extent could control unfair competition, prevent exploitation, and combat illegal encroachments, and in short nullify all efforts to disintegrate the practice of civilization's most noble calling.

The information on medical economics of the A. M. A., highly creditable though it be, lacks application to many local and relatively minor, but actually major

problems in the communities in which they exist. It is essential that the student of the subject be informed on the conditions as the A. M. A. under the efficient direction of R. G. Leland has found them. The value of the county society in initiating projects in this field, however, should not be underestimated. It always should be borne in mind that what is right for the little known general practitioner should be equally right for the leaders of the profession, and vice versa. The proper appreciation of this axiom will go far towards effecting our most ardent desires.

In all discussions of medical economics, it is important to keep before us prominently that one of the most, if not the most distinctive characteristic of our service is that we do not distribute a material commodity like food or clothing. It cannot therefore be separated from the producer and hence never enters into a market in the same sense that material commodities do. Therefore it is not subject to the same factors of supply and demand, standardization, etc., which influence the exchange of material wealth. Despite these facts, organizations exist that aim to purchase medical service at wholesale and dispose of it at retail. The sum total of medical knowledge possessed by the medical profession represents its entire capital and this conforms in no manner with the factors involved in the consideration of economics in general. No human factor is essential to economics; even the human labor admits of being mechanized. The practice of medicine is decidedly human and individual, and cannot be mechanized. Its benefits may be greatly marred by anything that lowers the income of its participants below the level at which they can devote time and money to those features that are so essential to maintaining a modern conception of medical progress. Assuming such knowledge as the profession maintains is a monopoly, it cannot long remain so, since progress in medical science advances it to the possession of succeeding and differently aligned generations. To control medicine, therefore, is to control something wholly out of date. Lay organizations, patterned after factories and other commercial enterprises, are likely to find themselves possessed of such an archaic medical organization almost before they begin functioning. Public welfare thus again adds another claim for our consideration.

We as physicians must guard, preserve and increase the fund of medical knowledge, since it is not only our right but it is also our responsibility and duty to the community to insist on maintaining and exercising full control over this knowledge, which is the basis of every form of adequate medical care.

Peter T. Swanish, Ph.D., head of the Department of Economics of Loyola University, said the Federal Emergency Relief Association and its possible effect on the future medical practice contained inherent dangers in accepting payment by the federal authorities for services rendered the indigent, stating in no uncertain terms that this plan, although introduced as a temporary expedient, may establish a precedent leading to its later adoption as a permanent plan for providing medical care to the indigent, and those in the lower income brackets. He called attention to the absurdity of the frequently repeated question, "Have the doctors a plan?" citing the well known economic fact that the consumer determines the market, and therefore, it is not the doctors' responsibility to take the initiative in any readjustments that may be in the making. This is also true, because the public has not readjusted itself to changing conditions, despite the fact that the doctors are now, as they always have been, ready to provide adequate med-

ical care to all groups. Attention was also called to the fact that some of the failure of the doctor to receive adequate remuneration for his services was due to his failure to stress properly the value of his commodity—medicine—and it was stated that the doctor should become more articulate and in every way attempt to acquaint the public with the value of his services, which could be done without lowering the dignity of the profession, or infringing our code of ethics. In other words, the public should be brought to a better realization of the value of competent medical service, through the agency of persistent publicity, and intelligent propaganda. Such a program, intelligently carried out, could not fail to increase the value of our commodity, thereby assisting in reestablishing our economic stability, and at the same time becoming a powerful factor in eliminating the various cults which now are actively competing in the field of medical service.—*The Weekly Roster and Medical Digest*.

Additional Articles on Medical Economics

Joint Meeting of the Philadelphia College of Physicians and the American Academy of Political and Social Science—p. 496.

Medical Service to the Chronically Indigent—p. 515.

Dauphin County—p. 538.

Lycoming County—p. 545.

York County—p. 548.

PHYSICAL THERAPY

Treatment of Arthritis.—Berris describes a method for the production and control of hyperthermia. The meal preceding the treatment is replaced by a liberal allowance of fluids. During treatment, tepid water is allowed. Otherwise the usual dietary regimen is followed. The patient is placed in a large wooden, air-insulated cabinet, so arranged that the patient reclines on a rubber couch with his head in the open air; with the thermostat in position, the cabinet is closed and the electric heating element and water vaporizer are put in operation. Pulse readings are made every 5 minutes. Blood pressure records may be made by leaving one arm of the patient outside the cabinet. Body temperatures of from 102° to 103° F. are usually attained in from 40 to 60 minutes, and from 103° to 105° F. in from 60 to 90 minutes. These levels are attained with a cabinet temperature which usually does not exceed 130 degrees. Restlessness and apprehension are allayed by applying cool cloths to the patient's head and by massaging the head and neck. When the predetermined level of hyperthermia has been reached, the main switch of the apparatus is opened and the patient is quickly dried and transferred to the ward. Heat loss is minimized by wrapping the patient in heavy woolen blankets. The temperature level may be well sustained for from 4 to 8 hours by the use of hot water bottles. When the mouth temperature has dropped to 99° F., body massage and manipulation of affected joints and muscles are instituted and the patient is given a shower or an alcohol rub and is discharged. The entire period of treatment usually consumes from 4 to 6 hours. Three treatments weekly for 3 weeks constitute a course, temperature levels of about 102° F. being used. As many as 20 treatments over a period of 5 weeks have recently been given. No other therapy is administered during the period of these treatments. Of the author's series of 20 cases of various types of arthritis, resistant to other methods of treatment, 75 per cent have shown definite improvement. The improvement obtained seems to de-

pend on peripheral vascular dilatation and improvement in local circulation.—*J. A. M. A.*, Oct. 30, 1933.

MEDICOLEGAL NOTES

Divided Responsibilities of Surgeon and Anesthetist.—According to the *Journal of the Indiana State Medical Association*, January, 1934, an interesting decision of the California Court of Appeals was recently reported, concerning the divided responsibilities of operating surgeon and anesthetist. The decision is to the effect that a surgeon who is employed to conduct an operation in a hospital is not liable for the negligent acts of an anesthetist employed by the hospital. This sets at naught the notion generally held by physicians that the operating surgeon is responsible for all acts of all concerned with the operation.

Dissolution of Partnership.—In an article published in *Medical Record*, Jan. 3, 1934, it is stated that in an action to restrain the defendant from continuing in the practice of his profession as a physician and surgeon in the counties of Kittson and Marshall, Minn., it appeared that a partnership agreement between plaintiff and defendant contained a provision in which the defendant covenanted that, upon his withdrawal from the firm, he would not engage in the practice of his profession for a period of 5 years within the 2 counties in which the plaintiff had had a large and lucrative practice for many years before assuming the defendant as a partner. The Minnesota Supreme Court held, *Thaleen v. Stratte*, 246 N. W. 744, that the restrictive prohibition in the partnership agreement was not unlawful and sustained a demurrer to the answer.

Reasonableness of Physician's Charges Determinable on Medical Expert Evidence.—According to an editorial published in the *Medical Journal and Record*, Oct. 18, 1933, the reasonableness of a physician's charges is to be determined from the evidence of medical experts and the custom of the locality and not from the opinion of the court or jury, the Wisconsin Supreme Court holds in a recent action by a physician against the estate of a patient.

To quote this editorial: "The doctor filed a claim for \$115 against the estate of a deceased patient for medical services to the deceased and his wife. The plaintiff and another doctor testified that this was a fair and reasonable charge and there was no testimony contradicting this. The trial court, however, allowed only \$35, stating that the estate was practically insolvent. The doctor appealed.

"The Supreme Court, reversing the judgment and awarding the amount claimed, said there was no basis for holding that the charge was obviously so unreasonable or excessive that the testimony was palpably false and incredible, so that it must be discarded by the court. It was insufficient that the trial court felt that the charges were high inasmuch as the estate was practically insolvent. The Wisconsin Supreme Court has held in former cases that the value of such professional services as are rendered by physicians, dentists, architects, and others engaged in similar professional pursuits is not a subject of general knowledge or such as comes within the field wherein courts can take judicial notice of certain classes of facts; that proper proof as to the measure of compensation in such matters requires the evidence of those familiar as experts with such work and the customary pay therefor in the particular locality where rendered; and that in such class of cases neither court nor jury can use their own individual

views nor those of persons unfamiliar with such particular subjects as proper basis for their findings as against the uncontradicted or unimpeached testimony of those who are qualified to know and speak on such subjects.

"The majority of the courts which have passed upon the question have held that the financial ability to pay or the pecuniary circumstances of the patient or his estate cannot be considered in determining the reasonableness of a physician's charges. Decisions to this effect have been rendered in the courts of last resort in Alabama, Arkansas, Illinois, Indiana, Iowa, Missouri, Texas and Wisconsin.

"There are decisions in Louisiana, New York, Pennsylvania, and Washington admitting evidence of the financial condition of the patient or his estate to aid in determining the reasonableness of a physician's charges, but in nearly all these cases there was also evidence of a known custom among the physicians and surgeons of the locality to consider the financial position of the patient and graduate their charges accordingly. This was the case in the early New York decision of *Lange v. Kearney* (1889), affirmed without opinion by the Court of Appeals, followed in a recent Surrogate's Court decision holding that in determining the reasonable value of surgeons' services in performing a major operation upon a hospital outpatient, apparently without means but in fact wealthy, the court could consider the financial standing of the patient as well as the testimony of the medical witnesses, where it was shown that wealthier patients were customarily asked to pay more than those in less than middling circumstances."

INDUSTRIAL MEDICINE

The Eye, in Relation to Modern Industry.—Dr. Walter H. Snyder, Toledo, Ohio, states the eye is the only organ in the body which has suffered in the changes of modern industry. Two factors in present-day industry to save the eye should be: (1) A better grade of goggles which will belong individually to the man using them. (2) The attitude of industrial commissions toward those taking care of diseases of the eye. The Ohio Industrial Commission will not pay the general practitioner at the same rate as the specialist for treating an eye, but they have not yet forbidden the general practitioner to do eye work in cities and towns in which specialists are available. Eventually, industrial commissions and self-insurers under the compensation laws will find a marked lessening in expense and better treatment by limiting treatment of the eyes to a proper qualified specialist.

The first treatment that is given an imbedded foreign body often determines what the disability will eventually be and in the smaller concerns employing, say 50 persons or less, these cases are not as apt to be treated properly as in one of the larger shops. It is interesting to note how few eyes have ever been injured by broken glass from the spectacle lens. This is often thought of as a very positive danger but in actual practice it amounts to practically nothing.

The article, published in the *Ohio Medical Journal*, January, 1934, concludes as follows: To obtain the best results for the employee and the employer and the most economical administration of any agency of compensation, the following suggestions are made:

1. Every employee should be examined before engagement and tests made to determine:

a. Whether there is any disease present which should be treated.

b. Whether there is any condition which will be made worse by the employment sought.

c. Whether by fitting of glasses the efficiency of the employee can be increased.

d. Efforts made that every employee be working under the most favorable circumstances possible considering his welfare first.

2. The employer whether insured in the regular compensation act or a self-insurer should see:

a. That the injured men are referred to competent men to treat them and not to some one who is simply friendly toward the boss or immediate supervisor of the employee.

This latter is very important as poor care means increased expense by the state and taxpayer for compensation, lessened production for the employer, and increased disability to the employee which no money can pay for.

b. The employer should consider it a proper charge in the cost of his product to supply men with shatter proof glasses in the shape of goggles and proper service to maintain their eyes at the highest efficiency.

A very much better service can be given to the employee and the state by a carefully considered plan by which only men whose competency is proved would care for these cases. The employee has a duty, however, to report any change in his vision from time to time and these tests if properly supervised can be made for a few cents per man. He must also be willing to wear protective goggles, which he is not willing to do now, but he has a right to expect them to be personal and not used by the entire force. Certainly we are not doing the best we can from an economic point of view, and a truly economic point of view is a correct point of view scientifically.

PUBLIC HEALTH

Undulant Fever.—During 1933, 49 cases of undulant fever were reported to the State Department of Health, according to *Pennsylvania Weekly News*. The slightly higher rise in the number of cases is explained by a more frequent recognition of the disease than in the past.

State Genito-urinary Clinics.—In a report submitted by Dr. E. S. Everhart, chief of the division of venereal diseases of the State Department of Health, to Dr. Theodore B. Appel, State Secretary of Health, a total of 272,367 patient visits were made to Pennsylvania State Department of Health's genito-urinary clinics during 1933. In addition, there were 1040 persons who were quarantined as menaces to public health, in the various stations in the State.

Principles of Health Education Discussed at Indianapolis Meeting.—The Institute on Health Education, a feature of the American Public Health Association convention first introduced in 1932, was repeated in 1933 at Indianapolis under the auspices of the Section on Public Health Education. The teaching staff comprised Iago Galdston, M.D., New York Academy of Medicine, H. E. Kleinschmidt, M.D., National Tuberculosis Association, Bertrand Brown, Milbank Memorial Fund, and the student body, which included about 60 persons engaged either in full or part-time health educational work.

Five sessions of 3 hours each were devoted to the general topic, "The Psychology of Health Education." Dr. Galdston, director of the Institute, developed the theme that the purpose of all health education is to influence behavior. He maintained that man's behavior is essentially emotional rather than logical (based on feelings rather than on knowledge) and that if health is to

be taught effectively this emotional element must be recognized. In his opinion, the use of this principle in the field of health education has been negligible compared with its application by commercial advertisers.

There are four cardinal principles to the technic of health education:

(1) Arouse curiosity: This is achieved by the extraordinary, the novel, the new. In arousing curiosity one must not confuse the extraordinary with the sensational or the novel with the bizarre. Arousing curiosity is not an end in itself; carried to extreme it tends to defeat its purpose.

(2) Enlist sympathy: After curiosity is aroused, the aim is to retain attention, *i. e.*, enlist sympathy. To do this the question of the person to be influenced "Does this concern me?" should be anticipated and answered convincingly in the affirmative.

(3) Impart information: The technics of doing this are multiform and dependent on the nature of the information to be given. Such information must be authentic and within the understanding of the group to be influenced.

(4) Motivate or lead to action: The key to this problem is the appeal to the emotions. To achieve action the end must be made desirable. This means that the end must be emotionalized, preferably with a pleasurable emotion though sometimes, of necessity, with a painful one.—*N. Y. State Health News*, Nov. 27, 1933.

Pittsburgh's Health Program.—Realizing that the psychologic time had arrived, Mayor John S. Herron, of Pittsburgh, several months ago appointed an Advisory Public Health Committee to coöperate with the Department of Public Health in a study of means and methods whereby the general health situation and its contributing factors could be correlated into a broad program of public health activities.

This committee has selected 8 problems for study, and for each of these there has been appointed a subcommittee.

Air Hygiene.—A comparison of mortality statistics for the 3-year period, 1927 to 1929, inclusive, with the 3-year period, 1930 to 1932, inclusive, invites critical study for the purpose of determining what factors adverse to health were present in the first period that were absent or mitigated in the second period. In this connection are mentioned lessened contamination of the atmosphere by products of the combustion of fuel with more and stronger sunshine.

Venereal Disease Control.—Pittsburgh is far behind in venereal disease control. Patients of this type are a serious menace to health. They are often difficult of detection and, when known, because of economic conditions, are difficult to hospitalize. The venereal disease problem requires serious consideration and timely action.

Water Control.—The safety and potability of the water supply of Pittsburgh are not in question now; however, at some future time, the city may wish to secure its supply of water for domestic use from other sources than rivers because of increased stream pollution. Some thought and study should be given to conditions under which a move of this kind might be indicated.

Negro Health.—The negro birth rate in Pittsburgh is 24.0, compared to 18.9 among the whites. The negro death rate in Pittsburgh is 19.3 compared to 11.4 among the whites. Infant mortality is in the ratio of 90.6 to 61.4 per 1000 live births. Pneumonia mortality compares as 29.2 to 13.3 per 10,000 population; and tuber-

culosis mortality is 12.7 to 4.3 per 10,000 population. As 8.2 per cent of the population of Pittsburgh is negro, it is evident that the relatively poor health of this considerable portion of our people represents a serious problem.

Housing Survey.—The medical and public health considerations involved in a housing program for Pittsburgh seem to have been insufficiently stressed. Much activity that has gone on abroad, and in other American cities, appears to have found little or no reflection in Pittsburgh thought. Now is the opportune time for physicians and public health workers to make valuable contributions to the framing of a comprehensive housing program based upon critical observation at first hand.

Preschool Child Survey.—Apparently the child of preschool age is neglected. For the babies, there are milk stations and infant welfare clinics; for the child of school age, there is medical supervision. Between these 2 periods of babyhood and school age, the child is under no specific health control.

Squatter Control.—The type of men constituting these squatter villages or groups is presumably much like many of the so-called unemployable class who are on welfare fund relief. An estimate made some 10 months ago indicates that about 25,000 men and women in Allegheny County might never again find regular work; that they represented a new sort of indigents in that their misfortunes were not due in the main to their own mistakes or bad habits, or aversion to regular labor. A study of the squatters, with a view to determining how many of them will probably be reabsorbed in expanding industry, and how many may have to be cared for in connection with the so-called unemployables, is plainly indicated. If the squatter villages are not to be liquidated, then the questions of sanitation, menace to health, *etc.*, call for investigation.

This investigation, the importance of which has been brought forcibly to the attention of those interested in health and welfare work in recent years, will be entrusted to a committee, the membership of which will be made public shortly—*Pittsburgh Health*, (Sept.) 1933.

Longevity of Our Neighbors in Canada.—A *Life Table for Canada* covering the year 1929 to 1931, just completed by the Statistical Bureau of the Metropolitan Life Insurance Company, reveals a number of significant facts, by comparison with the corresponding life table for the United States.

1. The Canadian lives longer than the white resident of the United States, if we omit the Province of Quebec from the reckoning.
2. Even if we include the Province of Quebec, which is somewhat less favorably situated as to mortality than the rest of Canada, it is still true from age 1 on, for males, and from age 2 on, for females, that the Canadian has a better expectation of life than the individual in our white population.
3. The Province of Quebec has a less favorable record than the rest of Canada.
4. In Quebec, contrary to the usual situation in most civilized countries, males have a better expectation of life than females from ages 1 to 28.
5. Infant mortality in the United States is distinctly more favorable than in Canada. The probability of dying within the first year of life is only two-thirds as great among white infants in the United States as in Canada as a whole, and less than one-half as high as in Quebec.
6. At every age and for each sex, mortality in Quebec is greater than in the rest of Canada.
7. In the United States, among white persons, male mortality is

in excess of female at every age of life. In Quebec, on the contrary, females have higher mortality than males over a large part of life, namely, from ages 4 to 45.

The relatively high mortality among these women is no doubt in large measure due to the strain of child-bearing, in a region in which large families are still the rule.

It is a matter of great interest that our neighbors, in their rigorous northern climate, can establish a better mortality record than ours for most of the adult years of life.

This new eugenical program of Germany will, then, be looked upon by the rest of us with, it is to be hoped, openmindedness. Yet we must watch closely the results, physical, social, and spiritual, and deduce therefrom wisdom for the treatment of our own similar social plague spots.—Editorial, *Medical Record*, Jan. 3, 1934.

Morbidity in Pennsylvania in December, 1933

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	0	11	0	21
Allentown	2	6	15	6	3
Altoona	0	4	52	0	15
Ambridge	0	0	4	0	4
Arnold	0	0	1	0	0
Beaver Falls	0	0	2	0	1
Bellevue	0	0	5	0	0
Berwick	0	0	4	0	0
Bethlehem	0	1	6	0	0
Braddock	0	0	0	0	0
Bradford	0	0	1	0	2
Bristol	1	0	0	0	0
Butler	1	0	7	0	1
Canonsburg	0	0	32	0	0
Carbondale	1	0	0	0	0
Carlisle	0	0	2	0	0
Carnegie	2	1	0	0	0
Chambersburg	0	0	3	0	1
Charleroi	0	0	0	0	0
Chester	0	1	2	0	10
Clairton	0	0	3	0	2
Coatesville	3	6	2	0	0
Columbia	0	0	1	0	1
Connellsville	0	0	2	0	0
Conshohocken	0	0	0	0	0
Coraopolis	0	1	0	0	2
Dickson City	0	0	0	0	0
Donora	1	0	4	0	0
Dormont	0	1	0	0	0
Du Bois	0	0	1	0	1
Dunmore	0	1	3	7	0
Duquesne	1	0	11	0	0
Easton	0	278	1	0	4
Ellwood City	0	1	5	0	0
Erie	0	1	15	0	3
Farrell	0	0	0	0	0
Franklin	0	0	0	0	1
Greensburg	0	0	13	0	0
Hanover	1	1	0	0	8
Harrisburg	0	0	10	0	7
Hazleton	1	0	0	0	0
Homestead	0	0	19	0	0
Jeannette	0	0	0	0	0
Johnstown	3	0	16	0	15
Kingston	3	0	3	0	2
Lancaster	1	6	5	0	60
Latrobe	1	0	7	0	3
Lebanon	0	0	0	0	0
Lewistown	2	0	0	0	0
McKees Rocks	1	0	1	0	0
McKeesport	1	2	7	0	0
Mahanoy City	2	11	0	0	0
Meadville	0	0	3	0	0
Monessen	7	0	0	0	0
Mount Carmel	0	0	0	0	0
Munhall	0	1	3	0	0
Nanticoke	0	0	2	1	0
New Castle	1	0	25	0	2
New Kensington	1	0	4	0	0
Norristown	0	2	1	0	0
North Braddock	0	0	0	0	0
Oil City	1	0	6	0	0
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	0
Philadelphia	6	705	244	5	95
Phoenixville	0	1	3	0	0
Pittsburgh	43	13	136	1	135
Pittston	0	0	0	0	0
Plymouth	0	0	2	0	1
Pottstown	3	1	1	1	4
Pottsville	1	41	0	0	0
Reading	2	15	24	0	26
Seranton	0	3	10	0	13
Shamokin	2	0	0	0	0
Sharon	0	0	0	0	1
Shenandoah	0	0	0	0	0
Steelton	0	0	1	0	2
Sunbury	0	0	0	0	0
Swissvale	0	0	3	0	1
Tamaqua	0	0	8	0	0
Taylor	1	1	1	0	0
Turtle Creek	0	0	2	0	10
Uniontown	0	0	6	0	21
Vandergrift	0	0	7	0	0
Warren	0	1	0	0	7
Washington	0	1	13	0	6
Waynesboro	0	0	0	0	0
West Chester	0	2	0	0	3
Wilkes-Barre	4	0	7	2	5
Wilkinsburg	0	0	0	0	4
Williamsport	0	3	30	0	19
York	0	27	2	0	3
Townships					
Allegheny County:					
Harrison	0	0	18	0	1
Mt. Lebanon	1	0	0	0	0
Stowe	0	0	14	0	0
Delaware County:					
Haverford	1	6	4	0	0
Upper Darby	0	11	16	0	8
Luzerne County:					
Hanover	0	0	0	0	0
Plains	0	1	1	0	0
Montgomery County:					
Abington	0	7	3	0	0
Cheltenham	0	0	0	0	0
Lower Merion	0	7	2	0	11
Total Urban ..	102	1171	878	23	545
Total Rural ..	153	573	1088	50	606
Total State ..	255	1744	1966	73	1151

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

"TUBERCULOSIS can be like an iceberg," says David A. Stewart, "only one-tenth visible and nine-tenths submerged." A recent study of 2000 apparently healthy food-handlers in New York City calls attention to the presence of unsuspected cases and to the danger of this silent menace to others. Abstracts of the report of this study follow.

TUBERCULOSIS AMONG FOOD-HANDLERS

In 1915 the Department of Health in New York City introduced a plan requiring food-handlers to obtain a certificate showing that they were free from infectious diseases in a communicable form. Physical examinations were limited at first to food-handlers in hotels, restaurants and other food-handling establishments, and later extended to include those who handled foods in hospitals, founding asylums and similar institutions.

Survey of 2000 Food-Handlers

Feeling that the method followed in examining food-handlers was open to question a survey was begun in 1932 of 1000 apparently healthy food-handlers. Subsequently another group of 1000 was similarly studied. These surveys had two objectives in view, namely:

1. To determine the incidence, extent, and character of pulmonary-tuberculosis lesions in an average group of apparently healthy food-handlers.

2. To determine, if possible, what would be an effective way, in a community like New York City, to screen out those cases of tuberculosis in food-handlers which might prove important sources of infection with tubercle bacilli.

The method adopted after some experimentation was to make:

1. A routine roentgenogram of the chest.
2. An examination of the sputum.
3. A physical examination of the chest of those in whom a pulmonary lesion was demonstrated by the roentgen ray.

Of the first group of 1000 examined, 772 were men and 228 women. The total number diagnosed as tuberculous was 125 (12.5 per cent), and of these 109 had no diagnostic physical signs.

In the second group of 1000 there were 473 men and 527 women, and a total of 112 cases of

tuberculosis were discovered. The cases discovered in the two groups were classified as follows:

	<i>First Group</i>	<i>Second Group</i>
Healed childhood tuberculosis ..	73 cases	83 cases
Latent adult tuberculosis	16 cases	19 cases
Active pulmonary tuberculosis .	36 cases	10 cases

While the proportion of women in the second group was larger than that of the first group the average incidence of lesions discovered did not vary much in the two groups. An important difference, however, appears in the active tuberculosis group, namely, 3.6 per cent for the first group and 1.0 per cent for the second. This conforms with the observation that pulmonary lesions are more common in adult males than in adult females.

Conclusions

The authors conclude, that the average incidence of active pulmonary tuberculosis lesions of food-handlers in New York City is approximately 2 per cent and they believe that this represents the average situation in all large urban communities. In New York City, with a food-handling population of more than 325,000, this percentage represents the existence of not less than 6500 cases of unknown and therefore uncontrolled active pulmonary tuberculosis, to say nothing of thousands of cases of arrested tuberculosis, childhood type tuberculosis, and pleurisy. Other conclusions are that when the question of tuberculosis is involved no physical examination of the chest is worth its name without the roentgen ray, and that progressive pulmonary tuberculosis may exist without demonstrable diagnostic signs.

A Tuberculosis Survey Among 2000 Food-Handlers in New York City, Martin, Pessar and Goldberg, Am. Rev. of Tuberc., Feb., 1934.

THE impression that practically all adults react to the tuberculin test is largely responsible for neglecting the use of this diagnostic aid. In the adult a positive reaction is of limited value but a negative reaction rules out the presence of tuberculosis and is therefore extremely valuable. M. R. Lichtenstein in the February *American Review of Tuberculosis* discusses the value of the negative tuberculin test in adults.

TUBERCULIN TEST IN ADULTS

A prevalent conception is that a negative intracutaneous tuberculin test may occur in the presence of active tuberculosis. This idea is erroneous, since it has been shown that all cases of pulmonary tuberculosis react if concentrations up to 1 to 10 are used. The only exceptions are moribund patients, and these, as a rule, present no problems of diagnosis.

Another conception is that practically all normal adults react positively. This, too, is fallacious for while the percentage of negative reactors probably varies widely with the geographic locality it is enough to make the test worth while, and the percentage is probably increasing.

Exclusion of Tuberculosis Is Important

The exclusion of tuberculosis becomes important in the diagnosis of the case of suspected early pulmonary tuberculosis with negative sputum, dubious roentgen-ray and inconstant or slight physical findings. When such a patient undergoes months of observation and is told finally that he is an arrested case it places upon him the stigma of tuberculosis and leaves him with a dread of breaking down. All patients coming to the Municipal Tuberculosis Sanitarium of Chicago as suspected cases and not proved to be tuberculous by the preliminary study were given a tuberculin test. The intracutaneous test was used; the quantity injected for each test was 0.05 c. c.; readings were made at 48 hours; O. T. was used at first, and later T. P. T. (Seibert). Testing was begun with 1/100,000, 1/10,000 and 1/1000 dilutions. If negative, the 1/100, and, after intervals of 48 hours each, if negative, the 1/10 and 1/1 or full strength solutions were injected.

Of the 162 patients tested 14 (8.6 per cent) were completely insensitive to all tests and were ruled out at once as nontuberculous. Nine (5.6

per cent) reacted only to the stronger dilutions, but it is very probable from observation that they cannot have *active* tuberculosis.

Two main groups of patients present themselves as problems in diagnosis. First is the group with symptoms suggestive of early tuberculosis, but with negative or dubious physical and roentgen-ray findings. Second is the group with physical findings or roentgen-ray shadows and with few or no symptoms. Most of the patients in our tuberculin-insensitive series who came under the first heading were finally diagnosed as showing various sequelae of acute pulmonary infections, or subacute infections of other organs. Under the second heading most of the cases turned out to be bronchiectasis or cardiac disease. One of the latter group was an asymptomatic unilateral apical bronchiectasis sent in with a diagnosis of tuberculosis because of the apical râles and roentgen-ray shadow. Although many of the patients discussed here were suspected to be nontuberculous on clinical grounds, the clinching argument in *proving* them nontuberculous was the tuberculin test. Without the test a period of observation, probably of several months' duration, would have been necessary before the clinician could safely state that the patient had no tuberculosis.

Tuberculin Test Should Be Routine

The test has value in private practice because it is helpful in those cases in which diagnosis is most difficult. Occasionally it solves quickly and decisively a problem in diagnosis which would never be solved otherwise. The intracutaneous test carried into the stronger concentration should be a part of the diagnostic routine of every physician who considers tuberculosis.

The Value of the Negative Intracutaneous Tuberculin (Mantoux) Test in Adults, M. R. Lichtenstein, Am. Rev. of Tuberc., Feb., 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

ANENT VETERANS' LEGISLATION

The following telegram was sent under date of Jan. 24, 1934, to each of the Senators and Representatives from Pennsylvania in Washington:

The 8000 members of The Medical Society of the State of Pennsylvania, a great percentage of whom are World War veterans, remain consistent in support of the policy of Federal care of veterans with service-connected disabilities, but continue to oppose free Federal care and hospitalization for nonservice-connected cases. Your helpful consideration of our position will be appreciated.

ALEX. H. STEWART, M.D., *Chairman*,
Committee on Public Health Legislation.

The following telegram was sent under date of Feb. 1, 1934:

Senator James F. Byrnes, *Chairman*,
Subcommittee on Appropriations Considering Reed Amendments,
Senate Chamber, Washington, D. C.

Senator David A. Reed's amendments to the Independent Offices Appropriation Bill HR 6663 will, if its four points are adopted, work an injustice to the taxpayers, the private physicians, and the local hospitals of Pennsylvania. The 8000 members of The Medical Society of the State of Pennsylvania desire to protest against Federal hospitalization of nonservice-connected cases among war veterans and against extension by the Federal government of any form of medical or hospital practice that will compete unfairly with existing local physicians or hospitals. A copy of this message has been forwarded to President Roosevelt, Senator Reed, and Senator James J. Davis.

ALEX. H. STEWART, M.D., *Chairman*,
Committee on Public Health Legislation.

BUILDING IMPROVEMENTS

The Board of Trustees of our Society at their regular February meeting upon recommendation of the Building Committee—Drs. A. S. Kech, Altoona, chairman; Frederick J. Bishop, Scranton; and Clarence R. Phillips, Harrisburg—ac-

cepted the bid of John Stapf, of Harrisburg, who was the lowest of six bidders. He was also commended by the Architects Lawrie & Green, of Harrisburg.

As mentioned in the January issue of the JOURNAL, when these improvements are completed, the building will be not only in appearance in keeping with the dignity of our Society and the almost immediate proximity of its headquarters to the State Capitol, but will increase the Society's facilities for extension of service to its members; and at the same time "memorialize the contributions of our members to preventive and curative medicine and the sum total of human happiness." (See Secretary's annual report, September, 1928, JOURNAL.)

The words above quoted express the vision of our Board of Trustees of 1928 in recommending the increase in State Society dues, and the wisdom of our 1928 House of Delegates in accepting the recommendation. This increase has not only provided the funds for the expanding administrative budgets of our Society, but, due to farseeing management, the funds to pay for the completed building and furnishings.

THE FEBRUARY HONOR ROLL

On March 2, 1934, the total number of members of the various component societies whose dues had been received in the Secretary's office was 3682; on the same date 1933, the number was 2881.

During the 3-month period ending Feb. 15, one hundred forty-six new members were added to our rolls, an increase of more than 10 per cent over the same period last year.

This information regarding membership and payment of 1934 dues will not reach our mem-

bers until at least March 17, at which time but 2 weeks will remain for members to make the necessary payment of dues to maintain their good standing in their State Medical Society, with uninterrupted service from its Medical Defense Fund. If you are unable to pay your county medical society dues in full at this time, you will doubtless find the officers of your county society ready to meet you more than half way in a series of installment payments reasonably spaced and satisfactorily pledged.

The following is a record of component societies which on Feb. 20 had remitted 50 per cent or more of their members' dues:

<i>County</i>	<i>Per Cent</i>
Clinton	100
Juniata	100
Wyoming	100
Cumberland	78
Susquehanna	77
Columbia	74
Bedford	73
Somerset	73
Chester	71
Montour	69
Dauphin	67
Carbon	66
York	64
Franklin	63
Montgomery	62
Berks	60
Delaware	60
Mifflin	60
Blair	58
Greene	58
Allegheny	55
McKean	55
Potter	54
Armstrong	53
Lycoming	53
Beaver	52
Fayette	52
Huntingdon	50
Monroe	50

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contributions to the Fund:

Woman's Auxiliary to Lycoming County Society	\$75.00
In Memory of Mrs. Kulczynski (Lackawanna County)	2.00
Woman's Auxiliary to Bucks County Society .	10.00

Total contributions since 1933 report \$804.00

MINUTES OF ORGANIZATION MEETING COMMITTEE ON APPENDICITIS MORTALITY

The first meeting of the recently created and appointed Committee of The Medical Society of

the State of Pennsylvania on Appendicitis Mortality was held in the Penn-Harris Hotel, Harrisburg, Pa., Jan. 24, 1934, at 9:30 a. m.

The meeting was called to order by Dr. John O. Bower, chairman, with the following present: Drs. John O. Bower, Paul Correll, Maxwell Lick, Joseph P. Replogle, John W. Shirer, members of the Committee; Donald Guthrie, president of the State Society, *ex-officio*, and Walter F. Donaldson, secretary of the State Society.

The chairman appointed Dr. John W. Shirer as secretary.

Dr. John O. Bower opened the meeting with a discussion of the plan and survey of a similar committee of the Philadelphia County Medical Society under his chairmanship. This was made by means of coöperation of various hospital groups and the Public Health Department of the City of Philadelphia. He suggested a similar survey throughout the State. Discussion was then rather general on the question of this survey throughout this State, all members present taking part.

Dr. Guthrie, after this general discussion, advanced the idea that this Committee was laying the groundwork or foundation of the study of appendicitis mortality with the ultimate aim of creating a permanent committee or commission similar to the State Society's Cancer Commission. He mentioned the fact that The Medical Society of the State of Pennsylvania had pioneered in cancer study by establishing the first State Cancer Commission. He suggested a permanent committee, and Dr. Donaldson suggested that the report of this Committee to be made to the 1934 House of Delegates include a recommendation for the creation of a permanent Commission on Appendicitis Mortality.

Dr. Bower brought up the question of appropriate newspaper interviews and radio talks and talks to high school pupils, and was informed by Dr. Donaldson that a bureau was available through the State Society for the dissemination of medical and health news, the State Society employing an experienced newspaper writer for such work. Such work is planned by the Public Relations Committee. He suggested that this Committee ask the Public Relations Committee to sensitize all County societies about the purposes of this Committee.

Dr. Bower distributed to the Committee samples of a warning sticker used by the Philadelphia County Medical Society, to be pasted on the physicians' statements and prescriptions, thus contacting the laity. He mentioned also the fine coöperation of the Philadelphia pharmacists.

General discussion followed the presentation

of this sticker, and it was unanimously agreed that it should be changed to read:

WARNING

In the presence of abdominal pain
Never give a laxative or physic
Give nothing by mouth
Call your family doctor
 Abdominal pain, cramps, or soreness which
 lasts four hours is usually serious.
 This warning is published by The Medical
 Society of the State of Pennsylvania.

Dr. Guthrie offered for discussion a pertinent question which he frequently uses in addressing medical societies on abdominal conditions: "What conditions, which prove themselves to be entirely medical—not surgical—causing abdominal pain, require morphine?"

Dr. Bower suggested that an enlargement on this question be passed on to the physician in practice through the media of the county society publications.

Dr. Bower advised that the cost of these Philadelphia stickers as exhibited was \$90 for 300,000.

Dr. Correll moved that application be made to the Board of Trustees for an amount not exceeding \$100 to purchase warning stickers. The motion was seconded by Dr. Repogle, and carried.

* Dr. Correll suggested a plan whereby the stickers may be printed on a perforated sheet to be mailed with each JOURNAL of the State Medical Society, approximately 40 stickers to the page. This suggestion was not acted upon, but was referred to Secretary Donaldson to estimate possibilities and cost of same.

Dr. Correll moved that all county societies be requested, through the Secretary of the State Society, to have a scientific program concerning appendicitis and all its sequelae at one of its meetings during the year of 1934. The motion was seconded by Dr. Repogle and carried.

Dr. Donaldson recommended and Dr. Lick moved that each member of this Committee prepare a 250 to 300 word treatise on some aspect of appendicitis to be published in the successive issues of county medical society bulletins. The motion was seconded by Dr. Repogle and carried.

Dr. Correll moved that the Chairman of this Committee, at the suggestion and recommendation of Dr. Guthrie and Dr. Donaldson, write to each of the Trustees and Councilors asking for a place on each 1934 Councilor District Program for the presentation of a 10-minute paper or talk concerning appendicitis mortality. The motion was seconded by Dr. Lick and carried.

The meeting adjourned at 12 o'clock noon.

JOHN W. SHIRER, *Secretary*.

* A perforated sheet of stickers will be inserted in each copy of the April JOURNAL.

TWENTY-EIGHTH ANNUAL CONFERENCE OF COUNTY SOCIETY SECRETARIES AND EDITORS

In the January and February issues of the JOURNAL we completed publication of papers presented at the 1933 Secretaries' Conference on the "Cost of Nonmembership," as well as discussions thereon; also the presentation and discussion on the subject of "Graduate Medical Education for Our Smaller County Societies." This month we publish the presentation and discussion on the timely topic of Workmen's Compensation Laws.*

MEDICAL RELATIONS UNDER WORKMEN'S COMPENSATION**

THOMAS A. MCGOLDRICK, M.D.,† BROOKLYN, N. Y.

Sometimes, gentlemen, from the general discussions that take place, one might doubt that the title of Workmen's Compensation Law is correct. Its sole purpose is the compensation of injured workmen, their medical care, their rehabilitation and restoration to earning capacity. It needs but one thought to know how important is the medical profession in accomplishing this purpose. Despite this importance it is sad to think how little consideration was given to the profession in the preparation and enactment of these laws, or even in their administration. Faults soon became apparent and objections arose from those affected—the workingman, the employer, and the physician.

The workingman quickly realized what the loss of choice of his physician meant. He learned that:

a. *Employer* meant *insurance carrier*, and that these carriers were in a business predicated on making money through his misfortunes.

b. In his treatment these carriers engaged doctors for most of the work who would accept the lowest salaries, and when possible this treatment would be deputed to nurses and technicians.

c. Frequently the employer compelled his men to visit "compensation clinics" for treatment.

d. While many self-insurers maintained competent medical staffs and gave good service, others made contracts with neighboring clinics

* Since this discussion our Board of Trustees have authorized and President Guthrie will appoint a commission whose duty it shall be to obtain the views of representative members engaged in general private practice, industrial practice, and hospital practice, regarding medical service under Pennsylvania's Compensation Law, and to study the problem as handled in other states with the purpose in view of recommending constructive changes in Pennsylvania's present law.

** Read at Annual Conference of County Society Secretaries and Editors, Harrisburg, Dec. 12, 1933.

† A member of Governor's Commission to Study Workmen's Compensation Laws in New York State.

or hospitals, or had on their emergent staffs some ex-orderlies or nurses.

e. Men were returned to duty before they were sufficiently recovered, and that the treatment had not been the best.

f. When necessary judicial questions arose, such as causal relationship or degree of permanency of physical disability, records of his case were in the possession of his employer or the insurance carrier and, further, that the doctor and other witnesses were on the payroll of his opponent.

The *doctor* found many faults:

a. After giving the patient emergency care, the patient would be "lifted" from his service by the insurance carrier through the employer. Even patients in *hospitals* were "lifted" to other "contract" hospitals as soon as considered safe.

b. The doctor objected to the inferior quality of treatment given these workmen—many of them his family patients—by these contract or compensation clinics or doctors.

c. The doctor objected to *lay* referees deciding strictly medical questions.

d. He objected to the unethical advertising of clinics or doctors soliciting compensation business, and the paying of rebates to employers—rebates made up from padded bills sent to insurance carriers.

e. He objected to hospitals conducting special compensation dispensary clinics, paying the younger men a small stipend and retaining the balance.

f. He strenuously objected to certain hospitals sending bills to employers in the doctor's name for the special services of doctors, as for operations, and retaining every cent.

g. He objected to the delays in official hearings of cases—which he must attend to testify, and for which he received no remuneration; also to adjourned hearings and delayed payment of bills.

The *employer* (or carrier) on his side had some faults to find:

a. He asserted that the doctors did not know how to treat compensation cases, although more than 95 per cent of the injuries are minor, and the major cases were usually in hospitals.

b. Doctors were dishonest; they charged too much; they made unnecessary visits; they padded bills; they did not coöperate in the necessary clerical work; they made false statements in regard to causal relationship of consequent conditions, *e. g.*, tuberculosis, malignant disease, and others.

During the past few years three investigations into the working of the law have been made by New York State:

a. The Bar Association and Lindsay Rogers report;

b. The Cullman-Lambert Committee;

c. The Governor Lehman report; but to the present time no remedial legislation has been enacted.

The insurance carriers were among the first to appreciate what seemed self-evident truth:

a. The least expensive work was not always the least costly.

b. Many of the physicians who were driven to do the least expensive work were otherwise professionally unsuccessful, and that they made deals with company adjusters. Even some better known doctors secured operative compensation cases from insurance companies through different kinds of influence—social, political, financial.

c. Integrity and character in the doctor were assets to the carriers.

Later a gentlemen's agreement was arranged between the National Board of Security and Casualty Underwriters and the county medical societies in and around New York City. Agreed upon were:

1. Modified free choice—permitting the family physician, if a member of the county medical society, to continue to treat his patient even without authorization of the employer.

2. A schedule of fees.

3. Arbitration of disputed bills by an Arbitration Board.

4. There should be no *lifting* of cases.

The doctors agreed to coöperate heartily with the company by:

1. Keeping them informed of the progress of the case.

2. Sending in a written report within the first week.

3. Not performing nonemergent operations or calling consultation without conferring with the carrier, and leaving final decision, when in question, with the latter.

4. Permitting inspection or examination of patient when desired.

This plan has been in operation in Greater New York for 2½ years. There have been more than 3000 claims so arbitrated. There have been a great many claims on the calendar settled before the day set for hearing. There have been more cases submitted by the employers; *i. e.*, the carriers, than by physicians.

In not one of these disputed claims has the charge been made of poor treatment, *but* padding, unnecessary visits, too much physiotherapy, lack of knowledge of correct fees, and non-coöperating, have been the usual complaints. Although by this agreement many of the ob-

jections and faults in the Act have been removed or corrected, many others can be corrected only through state legislation.

About one year ago, after study of the reports of previous state investigations, Governor Lehman appointed a committee to suggest to him remedial measures on the medical phases of the work—measures that he might submit to the legislature. This committee was composed of 10 doctors selected by the Governor, 5 from names submitted by the New York Academy of Medicine, and 5 from names submitted by the Medical Society of the State of New York. This committee has spent nearly a year in its work and has almost completed its task.

The committee will recommend for enactment into the law a limited free choice of physician by the workman, this limited free choice to be controlled by the county medical society through its enrollment of physicians who wish to do this work.

Enrollment. A person licensed to practice medicine in the State of New York, before rendering medical care under this Act, shall file with the County Enrollment Committee, in the county in which his office is located, an application to be permitted to render medical care under the Compensation Act. In said application for enrollment he shall state his training and qualifications, and shall agree to limit his professional activities under this Act to those conditions for which his experience and training as recorded qualify him. He may at any time add to stated qualifications. The Board of Enrollment and Licensure shall then issue a certificate of enrollment.

County Board or Boards of Enrollment and Licensure, consisting of three qualified physicians, shall be appointed by the medical society of each county.

The duties of said Boards shall be: (1) To recommend for enrollment properly qualified physicians to render medical care under this Act; (2) to inspect and recommend to the Industrial Commissioner the licensing of compensation medical bureaus which are properly staffed and adequately equipped; (3) to make regular inspection of compensation medical bureaus so licensed; (4) to report to a State Board of Professional Standards and to the Industrial Commissioner all instances of professional or other misconduct in connection with the operation of compensation medical bureaus and instances in which compensation medical bureaus have failed to conform to proper standards; (5) to authorize transfer of cases.

Emergency (first aid) medical care may be rendered under this Act by any physician li-

censed to practice medicine in the State of New York, even though he is not enrolled under this Act.

Any licensed physician who is a member of a constituted medical staff of any hospital may render care under this Act while an injured employee remains a patient therein. Medical care may also be rendered under the supervision of an enrolled physician.

Charges filed against physicians under the Act, as proposed, shall be brought before a State Board of Professional Standards, consisting of ten qualified physicians to be appointed by the Governor. This Board shall consider and shall conduct hearings in charges against physicians filed by employees, by employers, by insurance carriers, by the Industrial Commissioner, and by other physicians and individuals, which purpose to show professional or other misconduct in connection with medical services rendered under this Act.

Upon the recommendation of the State Board of Professional Standards, the Industrial Commissioner may remove from the list of enrolled physicians the name of any physician found guilty by the State Board of Professional Standards of neglect, professional misconduct, fraud, deceit, or unfitness in the treatment of injured workmen, or any violation of the provisions of this Act, and thereafter such physicians shall not be entitled to claim payment from an employer for medical services rendered under this Act, except for emergencies.

MEDICAL COMPENSATION BUREAUS

a. Each insurance carrier, self-insurer, or enrolled physician, who desires to operate a compensation medical bureau to render medical care under this Act, shall file with the County Board of Enrollment and Licensure of the county in which the said compensation medical bureau is located, an application to operate a licensed compensation medical bureau under this Act, setting forth in said application details as to its personnel and equipment.

Every licensed compensation medical bureau shall furnish to the County Board of Enrollment and Licensure, upon request, reports in such form as may be required by the said County Board, and shall submit to inspection at any time by the said County Board. The personnel of such compensation medical bureau shall conform to the standards and regulations herein provided.

b. Upon the recommendation of the County Board of Enrollment and Licensure, the Industrial Commissioner is authorized to revoke the license of any compensation medical bureau which

said County Board of Enrollment and Licensure may find after investigation to have been guilty of professional or other misconduct, or of any violation of the provisions of this Act, or whose personnel is not properly qualified under this Act, or whose equipment is inadequate.

* LEWIS K. FERGUSON, M.D. (Philadelphia): Unfortunately Pennsylvania's compensation laws are not as up to date as New York's. I should like to bring to your attention a few of the details of Pennsylvania laws as they are at present, some of the defects brought out in hearings, and to mention a few of the remedies which our commission has proposed. The Pennsylvania law provides only for actual injuries. This brings up the question as to what is an accident? According to the definition it is a sudden-occurring force or incident which works harm to the bodily structure. This is often not known by the doctor in taking care of cases. In other words, a man who works in a draft and develops a cold does not have an accident. A man who works in greasy surroundings and develops a furunculosis on the back of the hands has had no accident.

Employers in this State are now given the right to choose the doctor. The chief point brought out in hearings over the State with regard to choice of physician from the point of view of the working man was this—that unfortunately all of the records of the treatment of a given case which became an issue before referees or the board were records of the insurance company doctor and the employee did not feel he had a square deal because the records of the case were all those records of the insurance company doctor. So our committee has suggested an amendment which is to the effect that every injured workman should have the privilege of an examination by a physician of his own choice to be paid for by his employer, the sum not to exceed \$5.

Regarding duration of medical care, Pennsylvania is backward in this respect. Twenty-three states have unlimited medical care. Many others have it limited to 6 or 8 months, or a year. Pennsylvania, however, limits it to only 30 days. This is a considerable injustice to doctors and hospitals caring for injured workmen. There are no figures available to show the loss which doctors suffer because of this limitation of medical care, but there are many figures which show that the duration of care beyond the 30-day limit was 227,228 hospital days, 8250 outpatient visits, the cost of which amounted to \$100,810. Insurance companies paid only $\frac{1}{3}$, leaving $\frac{2}{3}$ of the cost beyond 30 days to be borne by the hospitals.

In addition to the limitation of time, Pennsylvania laws also limit the money which may be expended in compensation cases. The money which may be spent for doctors, surgical operations, and other such things is limited to \$100. A doctor cannot charge more than \$100 no matter what his services may be. In some 22 states, including Federal compensation jurisdiction, the amount of compensation is unlimited. Our committee has proposed that the duration of medical benefits for compensation should be extended to 6 months. We also proposed an unlimited medical fee as far as money is concerned, subject to a schedule of fees set by the State Medical Society and passed upon by the compensation board.

A third defect in our law is that if the insurance company refuses to pay the medical bill the only meth-

od before the doctor or the hospital can receive their money is to present the bill to the injured workman, who in turn must present the bill before a referee, and the referee may then order the insurance company to pay the bill. As you know, a workman dislikes to go before a referee. In spite of the fact that he is grateful for his doctor's attention, he will not take the time or trouble to do so.

Second, there is often pressure brought to bear upon a workman. He is told that he may lose his job if he presents the claim to a referee. In order to overcome this difficulty, our committee has proposed a section which provides that the hospital and the physician shall be parties of interest and shall be able to present directly their bills before referees.

Another weakness in Pennsylvania law is the part which reads that the employer is responsible for medical service beginning from date of disability, rather than from date of injury. Our committee proposed that the employer be responsible for medical care beginning from date of injury.

One of the types of complaints which we heard most often was concerning medical testimony at hearings. The situation is incongruous because here, on one hand, is the insurance company which is financially able to retain competent physicians who will not infrequently testify as the insurance company desires. On the other hand is the injured workman, who usually has little money, whose compensation has been stopped, who was treated by a company-chosen doctor, is unable to retain a doctor to testify for him. The result is then that a lay referee, an individual who knows nothing about medicine, sits between one type of testimony on one hand and another type on the opposite side, and he must choose between these two types of testimony. He must know what is right. He must decide whether this man is able to return to work or not. It is really an impossible situation. We propose that in every case in which a medical question is at issue, there should be impartial medical testimony available and the cost be charged against the employer.

One other provision we have suggested. When petitions to terminate compensation are presented to the referee they shall be accompanied by an affidavit stating that the facts as set forth in the petition are true. As it is today, an insurance company may stop payment to an injured workman and then some months hence file a petition stating that on the date they stopped payment this patient was able to go back to work but did not go back. By the time this case comes before a referee or board the individual may be well. Our proposition is that at the time the petition is filed it must be accompanied by an affidavit signed by a physician who has examined him within one week.

Compensation has two principles. One is to get the injured well and back to work, and the other, to provide cash benefits until he is able to get back to work. The medical profession, therefore, has a responsibility. It seems to me that The Medical Society of the State of Pennsylvania should be willing and anxious to cooperate with the State Bureau of Workmen's Compensation in giving them the benefit of their opinion and their knowledge in deciding medical questions.

Another question which has a large medical bearing is the method of computing personal disability. At present if a workman loses a finger he has a specific injury which has been computed by the law. He gets 65 per cent of his wages for 50 weeks and so on. If he has a hand infection so that he can not use his hand, then there is no fixed method of computing the disability, except by loss of earning power, and that depends

* Dr. Ferguson is a member of the Committee appointed by Governor Pinchot to study the legal and practical aspects of Workmen's Compensation and Insurance in Pennsylvania.

entirely on the type of work he was performing. The amount of disability a man has depends on his age and on his job. If he is young he may be able to change his occupation.

Our State Society should be able to render an opinion as to how to treat traumatic neuroses. As it is now the insurance company may send such case from doctor to doctor in an attempt to get him well. Experience has proved in some states that if such injured are given a sum of money and all compensation beyond a given point is stopped, as a rule their neuroses get well. Under Pennsylvania's law we are unable to make any such adjustment.

GEORGE H. CROSS, M.D., (Chester): I know of a number of self-insurers from personal experience who, when an accident occurs, turn the case over to a doctor and tell him to treat it. They never question a bill or treatment. I know of an insurance company that does the same thing.

If the doctor would get in touch with the company and say that he expects to be paid for necessary services beyond the limit fixed by law, I feel sure he will be paid.

Dr. Ferguson also made the statement that the company can get a doctor for a good fee to testify. I have testified many times in cases I treated for the company, and the company, I have found, is always interested in seeing that the injured employee gets fair play. I feel that if the doctor will work with the company a great many of our difficulties will be ironed out without the necessity of legislation or further compensation laws.

DR. FERGUSON (in closing): I am very much in agreement with a great many of the things that have been said. I do not mean to damn all insurance companies or all self-insurers. Conditions in and around Philadelphia are much better than in other parts of the State. I, for instance, have had very excellent experience. In other parts of the State, however, there is quite a great deal of disappointment and trouble in the question of medical fees in self-insurers' and insurance company cases.

I myself have testified quite often before the board and referees and I do not mean to say by any means that all medical testimony is bought, but if you have sat in on referees' hearings, as I have time and time again, you will wonder at the testimony that is given in an obvious case. Even though your testimony is perfectly honest, and you know it to be, it is possible there may be a difference of opinion, and second, the crux of the matter is that the injured man is not sure he is getting the square deal which testimony from an impartial source, as has been advised, would assure him.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Feb. 15:

ADAMS: *New Members*—Kenneth H. Benson, Abbotstown; Maurice N. Harris, Cashtown.

ALLEGHENY: *New Members*—R. Robert Cohen, 4731 Liberty Ave.; Joseph A. Coyle, Jenkins Arcade; Roy W. Fiedler, 102 Boggs Ave., S. S.; Mayer A. Green, 4207 Butler St.; Carl C. Hoffman, Pittsburgh Hospital, Frankstown Ave.; John W. Lauler, 802 Maryland Ave.; J. Harold Meyer, 3401 Fifth Ave.; William Reiner, 1552 Center Ave.; Bruce H. Sisler, 5445 Center Ave.; Salvatore C. Sunseri, 5488 Broad St.; Russell G. Smith, 2048 Brownsville Road; David J. Levison, Clark Bldg.; Paul L. McLain, Magee Hospital; Philip

J. Rosenthal, 1542 Beechview Ave.; Carl A. Wirts, 812 Cedar Ave., N. S.; Pittsburgh; Delmas L. Cribbs, Verona. *Reinstated Member*—Eugene J. Schachter, 606 Braddock Ave., Braddock. *Removal*—George W. Floss from Swissvale to Main St., Lawrenceville (Tioga Co.).

ARMSTRONG: *New Members*—Blaine E. Carberry, Ford City; Arthur R. Wilson, Dayton. *Reinstated Member*—Benjamin J. Longwell, Chickasaw. *Death*—Charles H. Furnee, Kittanning (Vanderbilt Univ. '98), Feb. 2, aged 56.

BEAVER: *New Member*—Don B. Knapp, 499 Third St., Beaver. *Resignation*—Percy K. Heller, Rochester.

BERKS: *Removal*—Frederick W. Light, Jr., from Reading to Clarksburg, W. Va. *Death*—John S. Borneman, Boyertown (Univ. of Pa. '78), Feb. 10, aged 82.

BLAIR: *Reinstated Member*—Edgar H. McKinley, McConnellsburg, transferred to Franklin County Society.

CAMBRIA: *New Member*—Claude W. Kirby, Summerhill. *Transfer*—Daniel Ritter, 97 Fourth Ave., Westmont, from Jefferson County Society.

CARBON: *New Member*—B. Frank Rosenberry, Palmyton.

CHESTER: *New Members*—Wilmer C. Gallagher, Chadds Ford; Everett M. Aikman, West Chester; Louis P. Koster, Malvern; Irving M. Waggoner, West Chester. *Removal*—J. Huston Johnson from Mont Alto to Glenmoore.

CLARION: *Death*—Henry N. Hess, Fryburg (Coll. P. & S., Balto. '82), Jan. 7, aged 81.

CLINTON: *New Member*—Henry G. Hager, Jr., Lock Haven.

CRAWFORD: *New Members*—Coletta A. Bennett-Deissler, Meridian Bldg., Meadville; James N. Strausbaugh, 231 Chestnut St., Meadville.

DAUPHIN: *New Members*—Oscar P. Holmer, Room 504, Education Bldg., Bryce A. Newbaker, 1945 Bellevue Road, Harrisburg. *Transfer*—Benjamin Halporn, 1458 Market St., Harrisburg, from Fayette County Society.

ERIE: *New Members*—Fred E. Abbott, 219 W. 10th St., Kunj B. Kichlu, 2520 Cascade St., Edward C. Ross, 426 E. 10th St., Michael Skovron, 2420 Parade St., Arnold H. Williams, 821 S. Park Ave., Erie; Joseph K. Tannehill, Girard. *Reinstated Member*—George Barrett, 119 W. 8th St., Erie.

GREENE: *New Member*—A. Carl Walker, Waynesburg. *Removal*—William R. Vernon from Bobtown to Monessen (West. Co.).

LACKAWANNA: *New Members*—James N. Edmunds, 300 Prospect Ave., James F. Reddington, 409 Prescott Ave., Scranton; William M. Howell, Avoca. *Reinstated Member*—Philip A. Lonergan, 706 Main St., Dickson City.

LEBANON: *New Members*—C. Ray Bell, Jr., 418 Cumberland St., Lebanon; Louis G. Fetterman, Campbelltown; Herbert E. Heim, Annville.

LEHIGH: *Death*—John S. Schneller, Catasauqua (Univ. of Pa. '10), Feb. 6, aged 48.

LUZERNE: *New Members*—Edward M. Hill, 41 Church St., Pittston; Norman A. Karmilowicz, 109 Page St., Kingston; Samuel R. Kaufman, 76 W. South St., David H. Hershfield, 63 S. Washington St., Wilkes-Barre. *Reinstated Members*—Martin L. Connors, 45 William St., Pittston; Henry W. Deibel, 189 Carey Ave., Frank J. Kosek, 447 N. Main St., Michael A. Murray, 243 S. Washington St., Thomas V. McLaughlin, 73 S. Washington St., Wilkes-Barre; Pearson A. Meek, 159 S. Market St., Nanticoke.

McKEAN: *New Member*—Michael E. McCarthy, Kane.

MONROE: *New Members*—David F. Kohn, Mount Pocono; Laurance W. Kinsell, E. Stroudsburg; Claus G. Jordan, Stroudsburg; Floyd W. Shafer, Gilbert. *Reinstated Member*—George D. Zehner, Tannersville.

MONTOUR: *Transfer*—John H. Snyder, Washingtonville (formerly of Sunbury) from Northumberland County Society.

NORTHAMPTON: *Transfer*—Stephen F. Seaman, 812 E. Fourth St., Bethlehem (formerly of Catasauqua) from Lehigh County Society; Walter M. Brenholtz, Hellertown, from Lycoming County Society. *Death*—Jacob E. Longacre, Weaversville (Univ. of Pa. '94), Jan. 17, aged 63.

PHILADELPHIA: *New Members*—John J. Byrne, 1407 N. 29th St., Nelson J. Burden, 4725 Osage Ave., Peter A. Callahan, 3123 Belgrade St., Everett H. Dickinson, 250 S. 18th St., Morris Gallen, 1300 Wyoming Ave., George C. Hanna, Jr., 1401 Oxford St., Morris Kleinbart, 1629 N. Franklin St., Stuart C. Runkle, Jr., 238 S. 45th St., Charles S. Schafer, 1825 N. 17th St., James A. Seligman, 320 S. 46th St., Charles R. Tatnall, Penna. Hos. 8th & Spruce Sts., John D. Turchi, 1710 S. 15th St., Constance G. Volk, 5241 Spruce St., Sidney Weiss, 2403 S. Broad St., Philadelphia. *Deaths*—John W. Jeffries, Lansdowne (Univ. of Pa. '28), Jan. 21, aged 40; Leon F. Luburg, Philadelphia (Univ. of Pa. '99), Jan. 18, aged 58.

SCHUYLKILL: *New Members*—Joseph Ricchiuti, Jr., Mahanoy City; Edward G. Sion, Shenandoah; C. J. Ulshafer, Ashland; Robert E. Mitchell, Coaldale. *Reinstated Member*—Charles M. Delp, St. Clair. *Transfer*—Angelo A. Gallo, Pottstown, to Montgomery County Society. *Removal*—Leo C. Gallagher from Coaldale to Lansford.

SOMERSET: *Reinstated Member*—Thayer C. Lyon, Central City. *Transfer*—Harry C. Hoffman, Somerset, from Lancaster County Society.

WARREN: *Death*—George S. Condit, Warren (Univ. Md. '10), Dec. 10, aged 47.

WAYNE-PIKE: *Death*—Edward O. Bang, S. Canaan (Temple Univ. '06), Jan. 10, aged 60.

WESTMORELAND: *New Member*—Jacob B. Pollack, Smithton. *Death*—William E. Errett, New Stanton (Univ. Pgh. '00), Jan. 26, aged 60; Bert Haughwout, Derry (Med. Chi. Coll. Phila. '93), Jan. 26, aged 66.

YORK: *Death*—Lewis H. Fackler, York (Univ. Pa. '86), Feb. 12, aged 76.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Jan. 15. Figures in first column indicate county society numbers; second column, State Society numbers:

1934				
Jan. 15	Cumberland	13-17	585-589	\$37.50
	Greene	1-7	590-596	52.50
	Bedford	4-9	597-602	45.00
16	Lycoming	3-43	603-643	307.50
	Bucks	1-14	644-657	105.00
	Somerset	9-11	658-660	22.50
17	Luzerne*	305-310	7742-7747	45.00
	Luzerne	10-12	661-663	22.50
	Lehigh	4-13	664-673	75.00
	Montgomery	61-76	674-689	120.00
18	Delaware	42-57	690-705	120.00
	Mercer	20-23	706-709	30.00
	Somerset	12-26	710-724	112.50
	Greene	8-10	725-727	22.50
19	Potter	1-7	728-734	52.50
	Susquehanna	1-10	735-744	75.00
20	Huntingdon	7-14	745-752	60.00
	Dauphin	63-89	753-779	202.50

* Indicates 1933 dues.

1934				
Jan. 20	Wyoming	1, 3, 5-13	780-791	\$90.00
	Franklin	19-31	792-804	97.50
22	Allegheny*	1275-1280	7748-7753	45.00
	Allegheny	1, 3, 5-7	805-809	37.50
	Allegheny	49-206	810-967	1185.00
	Fayette	23-26	968-971	30.00
	York	8-42	972-1006	262.50
	Juniata	7	1007	7.50
	Lackawanna	61-80	1008-1027	150.00
	Lackawanna*	240	7754	7.50
	Venango	9-18	1028-1037	75.00
	Montour	15, 17-20	1038-1042	37.50
	Cumberland	18-22	1043-1047	37.50
	Mercer	24-25	1048-1049	15.00
	Greene	11	1050	7.50
23	Montgomery	77-88	1051-1062	90.00
24	Erie*	150	7755	7.50
	Erie	1-20	1063-1082	150.00
	Armstrong	1-20	1083-1102	150.00
	Washington	7, 23, 24, 26-29	1103-1109	52.50
27	Blair	1-48	1110-1157	360.00
	Blair*	103	7756	7.50
	Northumberland	17-26	1158-1167	75.00
	York	43-53	1168-1178	82.50
	Clarion	11-12	1179-1180	15.00
29	Carbon	1-19	1181-1199	142.50
	Luzerne	13-32	1200-1219	150.00
	Clinton	1-22	1220-1241	165.00
31	Crawford	1-10	1242-1251	75.00
	Delaware	58-67	1252-1261	75.00
	Cumberland	23-27	1262-1266	37.50
	Adams	6	1267	7.50
	York	54-64	1268-1278	82.50
	Clearfield	1-10	1279-1288	75.00
	Greene	12	1289	7.50
	McKean	4, 7-12	1290-1296	52.50
Feb. 1	Delaware	68-69	1297-1298	15.00
	Somerset	27	1299	7.50
	Schuylkill	21-58	1300-1337	285.00
3	Westmoreland	1-31	1338-1368	232.50
	Northumberland	27-36	1369-1378	75.00
	Mifflin	8-14	1379-1385	52.50
	Mercer	26-28	1386-1388	22.50
	Washington	25, 31-33	1389-1392	30.00
	Allegheny*	1281-1283	7757-7759	22.50
	Allegheny	4, 207-482	1393-1669	2077.50
6	Montgomery	89-100	1670-1681	90.00
	Delaware	70-77	1682-1689	60.00
	Chester	1-36, 38-56	1690-1744	412.50
	York	65-77	1745-1757	97.50
	Franklin	33-38	1758-1763	45.00
7	Schuylkill	59-62	1764-1767	30.00
	Columbia	20-26	1768-1774	52.50
	Monroe	1-11	1775-1785	82.50
	Bradford	1-12	1786-1797	90.00
	Washington	30, 34-35	1798-1800	22.50
8	Dauphin	90-119	1801-1830	225.00
	Lebanon	1-9	1831-1839	67.50
10	Erie	22-51	1840-1869	225.00
	Bedford	10-11	1870-1871	15.00
	Montour	21-25	1872-1876	37.50
	Adams	7-12	1877-1882	45.00
	Crawford	11-20	1883-1892	75.00
	Northumberland	37-45	1893-1901	67.50
12	Fayette	27-60	1902-1935	255.00
	Mifflin	15	1936	7.50
	Clarion	13	1937	7.50
14	Cambria	1-70	1938-2007	525.00
	Luzerne	33-71	2008-2046	292.50
	Greene	13-15	2047-2049	22.50
	Venango	19-25	2050-2056	52.50
	York	78-83	2057-2062	45.00
	Beaver	1-44	2063-2106	330.00
	Schuylkill	63-74	2107-2118	90.00
	Montgomery	101-108	2119-2126	60.00
	Cumberland	28	2127	7.50

* Indicates 1933 dues.

1934				
Feb. 14	Berks	52-102	2128-2177	\$375.00
	Monroe	12-13	2178-2179	15.00
	Lycoming	44-64	2180-2200	157.50
15	Somerset	28-29	2201-2202	15.00
	Cumberland	29	2203	7.50

COMMITTEE ON SCIENTIFIC WORK

RICHARD A. KERN, M.D., *Chairman*
Philadelphia, Pa.

GENERAL MEETINGS—THE 1934 SESSION

The scientific program for the General Meetings of the Eighty-fourth Annual Session of the State Medical Society is being planned on these principles: Subjects must be of general and timely interest. There will be no symposia, so that the individual topics presented shall cover as wide a range as possible. The speakers will be men whose experience and scientific achievements will give weight to their conclusions. Each paper will be followed by a short discussion by an *assigned* discussor, selected as carefully as the speaker, and who will have read the paper in advance of the meeting. Additional interest, it is hoped, will be afforded by having a subject presented by a follower of one specialty and discussed by a member of another branch of medicine: *e. g.*, an internist will present his views on the "Conservative Management of Peripheral Vascular Lesions"; a surgeon will discuss the paper. An otologist will speak on the problem of "Middle Ear Infections in General Practice"; a pediatrician will give the discussion.

One of the guest speakers will be Dr. George W. McCoy, medical director, U. S. Public Health Service, and head of the National Institute of Health. The other guest speaker (to be announced later) will also be an outstanding figure in his field.

COMMITTEE ON PUBLICITY

LEWIS T. BUCKMAN, M.D., *Chairman*,
Wilkes-Barre, Pa.

EXHIBIT ON FRACTURES EIGHTY-FOURTH ANNUAL CONVENTION

An outstanding feature of the 1934 meeting of the State Medical Society in Wilkes-Barre, Oct. 1 to 4, will be the exhibit on fractures, plans for which are now maturing under the supervision of the Committee on Scientific Exhibit. This exhibit will supplement a contemplated symposium on fractures to be given by the Section on Surgery.

The exhibit will demonstrate fundamentals for the general practitioner who has not the facilities of a hospital. It will outline the treatment of fractures in the hands of the surgeon who has the facilities of a modern, well-equipped hospital. The importance of pre- and postoperative roentgen-ray records will be emphasized, and the medicolegal aspect, discussed. New apparatus will be shown and motion picture demonstrations utilized. There will be a complete "fracture library."

Demonstrators will be representatives from Sayre, Scranton, Wilkes-Barre, Nanticoke, and Danville, together with men of the Section on Surgery. The surgical skill of Northeastern Pennsylvania will be loaned to this exhibit to demonstrate the lessons learned from accidental injuries in this extensive agricultural and industrial community.

It is hoped to make the exhibit a complete course and one well worth the attention of the visitor to Wilkes-Barre next October.

MEDICAL SERVICE TO THE CHRONICALLY INDIGENT

The first article in last month's JOURNAL dealt with this subject and included a brief epitome of a number of the following reports gathered for our Society by C. D. Koch, Ph.D. A careful reading of the reports of existing facilities for sickness service to the "poor" in 42 Pennsylvania counties will certainly serve to demonstrate that such service is a hodge-podge of endeavors to meet easily this grave social responsibility. Certainly but slight evidence has been uncovered demonstrating that it is of practical interest to any citizen who is not a sick pauper or the paid employee in a county or municipal group which numbers perennial candidates for reelection.

In the April JOURNAL we will publish a summary of Pennsylvania's "General Poor Relief Act," and we will eventually publish in pamphlet form all the information and comments assembled, with the hope that it will be of service to medical society members, social workers, county poor authorities, tax payers, and others interested in the socially-important responsibility of minimal adequate medical service to the indigent.

ADAMS COUNTY

Organization—County Unit System: There are 3 Poor Board Directors, each receiving \$300; a clerk, \$300; an attorney, \$400; and a physician for the County Home, \$350. There are 80 inmates in the Home, supervised by a steward. The Poor Board passes upon applications, rejecting those persons whose children are able to keep their parents. In some cases part of the maintenance is paid by the Poor Directors.

There is no provision for caring for the poor sick except in the County Home. The doctors feel too much charity is expected of them but do not see how they can help themselves.

Persons interviewed: Dr. Edgar A. Miller, president, County Medical Society; Mr. Abner S. Mills, member of Poor Board.

Conclusion: The County report of the Poor Directors gives the sum of \$698 for medical services which includes \$350 paid to the physician who looks after the inmates in the Home. This would give \$348 for medical care given to others in the entire County and indicates only a meager attempt to pay for medical care.

Note: These facts, statements, and conclusions are correct in all details. The medical profession cares for all indigent sick of the County without any remuneration, except in the County Home. The physicians have always carried the burden but have never approached the county authorities to attempt any solution of the problem.—DONALD B. COOVER, *Secretary*.

ALLEGHENY COUNTY

Organization: All the boroughs and townships are included in the unit under the Poor Board. The City of Pittsburgh, under the Act, looks after its poor.

The organization of boroughs and townships maintains a County Home in which there are 1200 inmates; a hospital for mental diseases now numbering about 1500, and the Hill Crest Tuberculosis Sanatorium with about 300 patients. The organization to take care of these institutions employs (1) superintendent, matron, and nurse for the Home; (2) a full staff of doctors and attendants for the hospital for the mentally ill; and (3) a doctor and nurses for the sanatorium for the tuberculous.

In addition to the above the board has under contract 100 physicians in different sections of the County to care for all who can not pay for medical care, etc. The annual salary for these appointments varies from \$250 to \$400. The board reports that other doctors are generous to many charity patients.

Persons interviewed: J. Clyde Miller, president; H. H. Nixon, vice president; Villa F. Henderson, secretary, all members of the Poor Board.

Conclusions: The Board seems to feel it is doing everything possible to care for the poor. They say it is a big job.

Note: The report presented by Dr. Koch regarding the activities of the Allegheny County Board of Poor Directors is essentially correct.

The only change I have to offer has to do with the number of patients in the mental department at Woodville. Dr. T. L. Cotton, staff member at the institution, estimates the number as being approximately 1800 instead of 1500.—LESTER H. PERRY, *Executive Secretary*.

ARMSTRONG COUNTY

Organization: This County has commissioners as Poor Board members.

A County Home with 103 inmates is maintained at a cost of \$8 per month per person. There are only a few children and they are placed in homes. A physician is in charge of the Home and prison and is paid according to the work done.

The commissioners will pay doctors for obstetric cases at the rate of \$25 per case under emergency relief, provided the cases are brought to their attention immediately. Other visits by physicians will also be paid on the basis of half the bill.

The cost of the care of the feeble-minded, mentally ill, incapacitated, and aged is a heavy burden on the County. The Poor Board is unable to do much because of a lack of finances. Something must be done to reduce the cost of certain classes of individuals who

now threaten to undermine society. One physician reports a family in which both father and mother are half-wits and have 5 children who are feeble-minded.

There is a strong feeling that the State and federal funds must be put to better use than they are now to save the respect of our citizens. The method of giving without earning, according to one of the commissioners, is not only bad, but absolutely wrong. To give the young who are unemployed is only encouraging idleness and indifference to honest work.

Persons interviewed: Dr. J. B. F. Wyant, secretary, County Medical Society; Mr. Edward E. Schaffer, County Commissioner.

Conclusion: Some effort is being made to care for the indigent sick but a lack of money keeps the Poor Board from doing much. Early in the depression the County Society agreed to look after the indigent sick. Thus far there have been no refusals and none neglected, but it means the physicians of the County are giving gratuitous service.

Note: Facts are correct. Statements quoted are correct. Conclusions are correct. As far as I know, none of the poor and distressed has been neglected by the physicians of the County. We are hard pressed, and if anything can be done to pay in part for the work done, it will be a great help.—J. B. F. WYANT, *Secretary*.

BLAIR COUNTY

Organization: County Unit System with 3 members of the Poor Board.

In this County a home and asylum for the mentally ill are maintained. The cost for the inmates in the home is \$2.30 per week. Dr. Henry Sommer and an assistant are in charge of the County Home and the hospital for the insane. There are about 300 inmates in each.

Several physicians are employed under contract to take care of the poor sick in the several towns and districts in the County as Tyrone, Hollidaysburg, Roaring Springs, and Williamsburg—7 in all. Each is given a list of the persons unable to pay for medical care. For this service the doctors are paid an annual salary of from \$75 to \$100.

In Altoona, 5 doctors are appointed by the Poor Board to care for the indigent sick in that city. Patients may call on any one of the 5 appointed by the Board. The Board agrees to \$2 for a house call and \$1 for an office call, less 25 per cent if paid within 4 months. This has been in effect since Jan. 15, 1933.

Persons interviewed: Dr. John R. T. Snyder, president, Blair County Medical Society; Dr. Edward F. Williams, secretary; Dr. Augustus S. Kech, Trustee, Sixth Councilor District; Dr. Lewis P. Glover; Mr. Samuel C. Bowden, director of Poor Board.

Conclusion: Blair County Medical Society has made much progress but much remains to be done. The 7 men under contract will finish the year and will not renew their contracts. There is strong opposition to the contract plan.

BRADFORD COUNTY

Organization: County Unit System. This County operates under the County Commissioners who serve as members of the Poor Board. The County maintains a Home for the indigent and poor and is now taking care of 137 persons. It cost the County last year \$2.85 per week for each person in the Home. The commissioners levy a poor tax of 6 mills which brings in \$121,000. Dr. Ballard, a licensed physician, is paid a salary of \$600 to treat and care for the sick in the home. Aside from his regular visits to the County Home he is subject to call any time. For calls outside the Home he is paid extra.

Bradford County provides medical care for the indigent sick and for the professional services of licensed physicians on a fee basis. According to the clerk in the commissioner's office the costs of medical care of the indigent sick in Bradford County has increased greatly in the past four years. In 1929 it cost \$2,800, while the past year it cost more than \$10,000.

Many families are depending upon the hospitals for medical care. One physician reports that many obstetric cases able to pay for home delivery now seek free hospital service. This, he claims, is placing a heavy and unnecessary burden upon the hospitals.

Persons interviewed: Dr. Howard C. Down, member of Committee on Public Relations; Dr. George E. Richardson, chairman of Censors; Mr. Fred R. Prince, clerk of County Commissioners.

Conclusion: Bradford County, through the commissioners, seems to be furnishing ample medical care for all in need of treatment. The commissioners feel the burden and do some complaining.

Note: At the October meeting of the Bradford County Medical Society I presented the report which Dr. Koch made, relative to his survey of Bradford County. No one had any comments to offer, so apparently it is satisfactory to all concerned.—STANLEY D. CONKLIN, *Secretary*.

BUCKS COUNTY

Organization: County Unit Plan. Bucks County has 3 members on the Poor Board elected by the people.

There are 183 inmates in the County Home. A man and wife living in the Home are allowed to stay together provided they are congenial. The County makes no poor tax levy, but depends on an appropriation by the County Commissioners, which the past year amounted to \$60,000.

There is no provision for medical care at public expense, except that provided in the Home and for the poor children, who are cared for by the Children's Aid Society of Bucks County. The doctors are carrying the work as charity. Dr. Many, the County Medical Director, is not in sympathy with the attitude of the doctors of today. He believes they are to blame for the situation that exists.

All the physicians interviewed seem to feel the present method of handling the relief is bad. Organization costs are too heavy. The system worked more efficiently before the State changed the method.

Persons interviewed: Dr. James Collins, president of County Medical Society; Dr. Fred Wagner, Bristol; Dr. Mary E. Lehman, assistant secretary of County Medical Society; Dr. Charles Many, County Medical Director; Mr. Harvey Hoffman, superintendent of County Schools; Mrs. Oscar Martin, member, Poor Board.

Conclusion: There is no provision for medical care of the indigent sick in Bucks County, except those cared for in the Home and the children by the Children's Aid Society. The physicians are doing much charity work.

BUTLER COUNTY

Organization: Operates under the County Commissioners as the Poor Board.

The commissioners' office reports there are 160 inmates in the home and that it costs 60 cents to 65 cents per day per person. A physician is employed for the Home and prison and receives \$150 per month.

Since the beginning of the year the Poor Board has been paying physicians to care for the indigent sick in the sections in which they live.

Itemized statements showing calls, etc., rendered by physicians are reduced to one-half when paid. Hospital statements are also paid on this basis. It costs the

County \$1400 (including \$150 for the County Home physician) a month since the beginning of the year when this plan was agreed upon.

One physician strongly favors placing the responsibility upon the County Medical Society. In this way there would be little chance for abuse of the system. Physicians living in towns in which the indigent sick reside should be given a chance to treat and care for them. These doctors would have a good feeling toward the charity agencies, hospitals, etc. Sustained spirit and morale are also important among the doctors.

The County Medical Society in Butler County is willing to fix the fee for the indigent sick at one-half the fee of the regular charge for home and office calls and \$15 for obstetric cases. They think the fee plan is the only safe method for a working basis. Another experienced and beneficent practitioner in Butler County thinks the physician's service to society at large is a great burden as too much work is charity and something should be done by the State to pay the doctors a reasonable fee.

Persons interviewed: Dr. John M. Dunkle, president, County Medical Society; Dr. Alfred H. Ziegler; Mr. Edward R. Nixon, County Commissioner.

Conclusion: The doctors of Butler County will welcome a regularity measure by the State which will be fixable and practicable. The physicians today are required to do too much charity work.

Note: The report of Dr. Koch on Butler County is with a few corrections a good summary of the situation. The set-up as outlined is correct, except that the physician doing the County Home work at a salary of \$150 per month also takes care of the work in the County Jail, and in so far as possible has been taking care of the families on relief in the city and township of Butler.

This at times becomes too much of a task for one man and the County Commissioners sometimes designate certain physicians to take over some of the cases, paying for them at about half the usual fee. Relief cases outside of Butler township have been cared for as a rule by the family physician and paid for on a similar basis. There has been a very harmonious feeling between the County Commissioners and the County Medical Society at all times, and the arrangement has worked out quite satisfactorily in most cases here. The plan as outlined by the Committee of the State Medical Society has been discussed and appears to be workable and practicable in all but some outlying districts.

A few physicians in the County go 12 to 15 miles to see some patients, and it is reasonable to suppose that some allowance for mileage should be made as well as arrangement for recompense to the physician for drugs and supplies furnished.—RALPH M. CHRISTIE, *Secretary*.

CAMBRIA COUNTY

Organization: County Unit System with the directors of the Poor Board elected by the people at \$1500 annual salary.

A County Home is maintained with 330 inmates at a cost of \$13.30 per month per inmate. A physician is employed to take care of the poor in the Home and 15 physicians have been assigned to different sections of the County at \$150 per year per doctor. The Board also pays for drugs.

In Johnstown an agreement has been made so that individuals may call through the Red Cross nurse any physician in the city and the Poor Board will pay \$1.50 for home calls, and 75 cents for office calls. The Poor Board pays for drugs in all these cases. This practice has been in force since early summer.

The Board thinks the plan is satisfactory and the doctors feel better satisfied. It costs about \$400 per month for medicine in addition to the 15 doctors employed.

Persons interviewed: Dr. William A. Prideaux, president, County Medical Society; Dr. Daniel S. Rice, Dr. Thomas H. A. Stites, Cresson Sanatorium; Melville Cowen, Ray Brank, Clerk, County Poor Board; A. J.

Cornely, postmaster, Nanty Glo; Mrs. Mary Marrow, welfare worker.

Conclusion: The system now in operation, according to some physicians, fails in some ways. Those under contract fail to take care of all who need medical attention. One doctor thinks a card index with diagnosis, progress, treatment, and the number of calls of cases for future study, *etc.*, should be kept by each of the doctors under contract.

CAMERON COUNTY

Organization: Township Borough System. Each township and borough in Cameron County has a Poor Board. The County is small and accordingly has only a few districts. To interview the Boards would be difficult in the short time given to the investigation. Dr. Frank Strayer, who has been a member of the Poor Board in Emporium for nearly 30 years, is quite well acquainted with the conditions of the County and did not hesitate to answer questions relating to the work of his County.

He states that Emporium Borough, and he believes that this holds true for most of the districts, pays for the care of indigent persons in homes and for some who cannot be cared for in families are sent to the Potter County Home. The costs of this he states in families amounts to \$15, whereas it costs \$25 for each person in the County Home in Potter. This he claims makes a great difference in the expense of maintaining the indigent poor. It would appear that medical care is provided for the indigent sick in Cameron County.

Dr. Strayer, speaking for Emporium Borough, states that all indigent cases are paid for by the Poor Board. Dr. Bush, a resident of Emporium Borough, believes that the district system is not the best form of administration even though Emporium Borough is making every effort to take care of its poor. The doctors are carrying a heavy burden in taking care of the many who are unable to pay.

Persons interviewed: Dr. Bush and Dr. Frank Strayer, member of the Poor Board.

Conclusion: Cameron County appears to be providing medical care for the indigent sick.

Note: All cases indigent in Cameron County are taken care of through the Poor Boards of respective boroughs or townships, by physicians of this County, usually by choice from the patient. This gives the patient the chance of using his family physician, which is quite satisfactory. Those ill, without a home, are usually placed with a family by the Board, and medical attention is given them, or they are placed in Elk or Potter County Poor Home, in which they have their own medical attendants. There has never been any trouble in handling cases of this character in Cameron County, and the results have been very satisfactory. At Board meetings, all bills for physicians are presented and if not excessive are ordered paid. I believe only one township, Portage, in this county is without poor funds. They never have had taxes to provide for this fund. I know of ill in this township being taken care of by neighboring township.—WALTER H. BUSH.

CARBON COUNTY

Organization: This County operates under a mixed system in which several townships and boroughs are combined into a Poor District. Six boroughs and 4 townships belong to the Middle Coal Field Poor District, which includes a part of Luzerne County. For instance, the City of Hazleton, Hazle Township, Foster Township, Freeland, Yeddo, and West Hazleton borough are all in this Poor District. Over this district there are 5 poor directors.

A Poor Home is maintained by the district at Weatherly.

There is no provision in Carbon County for medical care of the indigent sick. One physician reports that the doctors in this section are very "hard hit" and ex-

pressed the belief that unless there is some relief many would be compelled to quit. He also said that if it were not for their pride many physicians would go into the mines and work there.

The doctors are carrying the burden as charity work. Many patients are being cared for by the State Hospital at Coaldale. In fact, 90 per cent of obstetric cases are now ward patients. This does not help the doctor as his service at the hospital is free.

In Lansford thousands of dollars are given out by the Emergency Relief Board to persons who will not work at any community improvement job. The union is so strong that men refuse to work except under union orders. At a meeting of the union men a short time ago there were so many automobiles that one street for two entire blocks was impassable as the cars were parked solid. Many of these persons on relief own automobiles and refuse to work to earn anything.

The doctors feel the State is doing more than it should to look after the persons who have little interest in the welfare of the State and nation and are entirely indifferent to the economical, social, and political future of society in general. The doctors are struggling to keep their homes, pay their taxes, *etc.*

Persons interviewed: Dr. Stanley F. Druckenmiller and Dr. Susan M. Thomchick.

Conclusion: There is no provision for medical care. The doctors hope the State will be able to do something to help them.

CENTER COUNTY

Organization: Township Borough System. Center County operates under the district system. Philipsburg Borough and Rush Township each maintain a Home, but not well suited to take care of the poor. Dr. Jones, of Philipsburg, is employed by the Borough and the Township to look after the poor who are ill. He does not think the system is satisfactory as the doctors not sharing in the pay do a lot of charity work. The physicians are really carrying the burden as charity.

In many of the districts the Poor Boards will not honor bills unless same have been approved before the treatments are given.

The farmer element is opposed to the county system as the farmers believe it would make them pay for support of the poor in districts of denser population, such as Rush Township and Philipsburg. The farmers seem to be satisfied to keep the present system believing that it will not increase their taxes.

Persons interviewed: Dr. John Foster, State College; Dr. Charles McGirk; Dr. Evan L. Jones, Philipsburg; Captain C. T. Fryberger, General Insurance, and former member of School Board; and Fred Hoffer, Emergency Relief Clerk.

Conclusion: The system under which Center County is operating seems to be unsatisfactory as only a few districts provide medical care. The argument that the farmers put up seems to be not well grounded.

CLARION COUNTY

Organization: The County Commissioners act as the Poor Board in this County.

A County Home for the indigent is maintained and a physician is employed to render medical care to the inmates. He is paid \$50 per month. Some care is also provided for the poor kept in private homes.

The doctors report that the commissioners are unable to offer any pay for medical services because they have no money. The 4 mills tax levied produces insufficient revenue to pay the physicians. As a result, the physicians are carrying on the work as charity. Nothing,

they say, has been done to relieve the burden of the doctors.

The Emergency Relief Work, they say, is costing too much under the present system; *i. e.*, for administration, *etc.* There is much duplication; some on relief receive double; others, nothing. Hence dissatisfaction prevails. Under the first plan \$12,000 was spent during the first 5 months; now it costs that amount for one month.

Persons interviewed: Dr. J. D. Kable, chairman, Legislative Committee; Dr. Ross Hill; Dr. G. C. L. Riemer, president, State Teachers' College, Clarion.

Conclusion: It is quite evident that little or no provision is made for medical care. As one expressed it, "Now and then the commissioners will pay for an obstetric case." Much urging, however, on the part of the doctor interested is required.

Note: The County Commissioners have been handicapped financially on account of tax exonerations. I understand there have been 2200. However, I do think it is a crime to shoulder the entire care of indigent people onto the medical profession. As you know we always dispense a great deal of charity and as a consequence are always broke.

This report of Dr. Koch is correct.—C. C. Ross, *Secretary*.

CLEARFIELD COUNTY

Organization: Organized with the County Commissioners as the Poor Board.

A County Home is maintained with 207 inmates at a cost of 40 cents per day per person. There are also 250 poor families outside the Home. One physician for the County Home receives \$750 a year; another for larger townships, the jail, and the children's home receives \$600 per year.

Several physicians have been appointed in various sections of the County to care for those who need medical attention though unable to pay for it. The salary per year is usually \$100. During the past year some of the physicians refused to sign contracts and as a result districts are without medical service except free service. Home care must be approved or ordered by the Poor Board.

The doctors are inadequately compensated and receive little consideration for the service rendered. Before 1929 the plan worked fairly well, but now the physician appointed cannot give proper service to the poor.

Persons interviewed: Dr. J. Paul Frantz, secretary of County Medical Society; Dr. A. L. Benson; Horatio L. Woodside, president, County Medical Society; Dr. Evan L. Jones, Dr. George B. Kirk, District Censor; Dr. H. H. King, Curwensville.

Conclusion: The contract system in this County during the economic stress has broken down. There is no adequate medical service for the poor.

Note: The contract system described above as used by the County Poor Board is worthless so far as the physician is concerned. The contract itself is an obsolete form that has been used for ages. Before 1929 there were practically no indigent sick. The stipend offered to the township physician of \$100 per year was a political gift to some favored physician and there was very little service rendered.

I do not agree that the contract system has broken down during the past 4 years as far as the service to the sick is concerned. The several physicians have never failed to carry out their part of the contract and have rendered service whenever called. With this terribly increased load there has been no intimation of increase in compensation on the part of the Poor Board. The entire relief list has been his to care for and he has borne this social load beyond endurance. We hope for some relief.—J. PAUL FRANTZ, *Secretary*.

CLINTON COUNTY

Organization: Operates under the County Commissioners since 1927. Prior to this both Lock Haven City and Renova Borough were empowered to levy a poor tax and to appoint overseers of the poor.

The City of Lock Haven has a home for the poor with Dr. W. E. Williams caring for the indigent sick.

Dr. E. R. Davis cares for the poor at Renova and the surrounding territory. He is paid \$200 annually for this service.

About 4 years ago the Poor Board of Renova bought a farm to take care of its poor, but never did anything with it.

Dr. Fulmer mentioned a patient, an old lady, who had reached the age of 107. He said, "What a pity if she had been forced to go to a home for treatment and compelled to have a strange physician." He thinks the poor should have a choice of physicians as much as any one.

Persons interviewed: Dr. C. L. Fulmer, County Medical Director; Dr. E. R. Davis; Dr. F. P. Dwyer, Public Relations Committee; Mr. F. E. Berkenstock, superintendent of Public Schools.

Conclusions: The doctors do not feel the system is satisfactory. It is also not satisfactory to the people.

CRAWFORD COUNTY

Organization: Operates under the County Commissioners.

A County Home is maintained with 130 inmates. Formerly there were 90 to 100 in Jan. and Feb., when the peak registration was recorded. For the Home, a physician and practical nurse, a steward, and matron are employed. There are no mental patients in the home. The doctor for the Home and the doctor for the county prison each receive \$600.

The doctors interviewed report no system for medical care for the indigent poor. A few doctors who seem to be favorites get calls and are paid for their service. The charge is made that the politicians hold sway to the detriment of efficiency.

Persons interviewed: Dr. Rodney S. Smith, County Home; Dr. Oliver H. Jackson, prison physician; Dr. Glennis E. Humphrey; Dr. Frank Hazen, director, *Medical Bulletin*; Dr. Morrison T. Levy; Dr. Luther J. King, secretary, County Medical Society.

Conclusion: Some of the doctors lament the fact that there is such unsatisfactory coöperation among the members of the Poor Board. They express the hope that the State will be able to do something to correct a bad situation.

ELK COUNTY

Organization: Under Commissioners of County.

A Home is maintained for the entire County with a physician who receives \$500 annually. The children of Ridgway are cared for medically through the Children's Aid Society.

There is no definite plan for medical care except in the County Home. Physicians are carrying the burden as charity.

Persons interviewed: Dr. James G. Flynn; Dr. W. M. Pierce, superintendent of County Schools.

Conclusion: This is one of the small counties with at least three good sized boroughs. Because of the large number of physicians in the towns the burden on each is not so heavy. Each doctor is doing a great amount of charity work.

Note: I believe the facts given in survey of Elk County are accurate. Certainly all the doctors are doing a great deal more charity work than they can afford. Despite working conditions being fair in this County, wages are low, and the doctor is as usual the forgotten man. I do hope some plan can be arranged so the physicians may receive some remuneration for their services.—R. D. WARNICK, *Secretary*.

ERIE COUNTY

Organization: Unit System at present.

Erie County operated under the Unit System and continued so to operate until Jan. 1, 1934. After that

date a Board appointed by the Judges of Erie County under a recent Act passed by the Legislature takes care of the poor.

Erie County has been experimenting for more than a year with a method agreed upon by the County Medical Society and these charged with the administration of the Poor Laws. It consisted of a dispensary and clinic with two or more doctors in charge. The organization endeavored to take care of the indigent sick through the Emergency Relief in Erie County. It was not limited to persons incapacitated, but included those who were unemployed.

According to a statement from Adrian Collins who was promoting the system by the agencies engaged in relief work, such as the taking care of the indigent sick, the unemployed through the Emergency Relief, the Red Cross, and the Aid Society, all were brought together under one head. The coordinating of all the agencies appeared to be a strong feature in the method. The doctors were enthusiastic and cooperating in the fullest way possible to make the work efficient. Mr. Collins, however, feels that the doctors will not be so keen in continuing that method. The success of the plan is no doubt due to the efforts of Mr. Dana Jones and Mr. Adrian Collins.

Dr. James D. Stark, one of the physicians interviewed and the man who likely did more to make the Clinic a success, thinks that the fee plan is unsatisfactory for the following persons: First, indigent persons are not competent to decide whom they should call. Neither do they have the right to say since they are on the County. Second, physicians are liable to abuse the fee allowed. He thinks the abuse would defeat the matter it wishes to correct. Third, indigent persons instead of calling young physicians who need experience would likely demand the services of the most prominent and experienced in the profession. This would, if the fee basis were adopted, place a heavy burden upon the aged doctors.

Colonel Jones reports that the work of the hospital has greatly increased in the past 2 years and that 80 per cent of the hospital patients now are charity patients. In 1930 there were 130 obstetric cases; and in 1933 more than 600 cases in the first 10 months. On account of the reduced appropriation and the increased number of patients, Colonel Jones has reorganized his hospital on a new basis. Now all hospital patients must pay a minimum charge unless they belong to the indigent class, and are supported by the County. He insists that each patient, except as herein stated, must pay the cost charges connected with the hospital.

Conclusion: It is very evident that Erie County has taken a big step toward a constructive piece of work. The experiment has no doubt proved satisfactory and will carry considerable weight in establishing a plan in Erie.

Persons interviewed: Dr. Norbert D. Gannon, secretary of County Medical Society; Dr. Stark, head of the Clinic; Dr. Thomas P. Tredway, member of the Hospital Staff; Colonel P. L. Jones, superintendent, Hamot Hospital; Harry B. Joyce, electrical engineer; Mr. Adrian Collins, Jarecki Manufacturing Company, secretary; Mr. Dana Jones, Manufacturers' Association of Erie, secretary.

FRANKLIN COUNTY

Organization: County Unit System. 3 County Poor Directors, \$400 each; 1 attorney who serves as clerk, \$750; 1 physician who looks after County Home with 160 inmates, \$480 annually.

The physicians report that there is no provision for

medical care of indigent persons in the townships, and that the County Poor Directors will pay no bills for medical services unless the persons in need of medical care have first been investigated by the directors and approved by them. Affidavits are required from attending physicians. One physician reported that he had not submitted a bill in 10 years because the Poor Board always insists on paying only half of the statement rendered.

The physicians in Franklin County in treating the poor sick, dispensing drugs, etc., are carrying the burden as charity work.

In Franklin County no tax is levied for the use of the Poor Directors, but the County Commissioners make an appropriation or budget an amount based upon an estimate given them by the poor directors; \$50,000 is the amount usually allowed for the entire care of paupers in contradistinction to those at present receiving help from county emergency relief boards. This year \$90,000 is needed.

The members of the Poor Board and the physicians interviewed hold widely different opinions as to the efficiency of the County Unit Plan as it works in Franklin County. The Poor Board members seem to be well satisfied with the results at least so long as the physicians are willing to carry the burden. The former have apparently little sympathy with the proposal that adequate medical service to the indigent is just as much the financial responsibility of the community as is food, shelter, clothing, etc. The physicians, on the other hand, feel the load is heavy and do not think they should carry this work and expense without a fair return.

Persons interviewed: Dr. Kinter, County Medical Director; Dr. Thrush, secretary, County Medical Society; Dr. Shull; Mr. Hafer, member, Poor Board, Chambersburg; Mr. Stoner, member, Poor Board, Waynesboro.

Unable to see: Mr. White, the other member; Miss Esther McNeal (County nurse employed by State Health Department).

Conclusion: In Franklin County the indigent sick, outside the County Home, are cared for by the physicians as charity work, and the physician assigned to the County Home looks after the inmates for which he receives \$480 a year.

Note: Much more might be said, but I believe Dr. Koch's summary covers the essential facts.—A. W. THRUSH, M.D., Secretary.

HUNTINGDON COUNTY

Organization: County Unit System with 3 members elected by the people.

In the County Home there are 60 inmates which costs \$2.20 weekly per inmate. A physician is employed at \$110 per year to care for the poor in the homes.

In certain sections of the County other physicians are appointed by the Poor Board to treat medically all the poor. One doctor showed a list of more than 40 patients to be treated for \$75 by him making 4 and 5 visits to several of the patients. He lamented the fact that the burden was too great for the pay received.

Persons interviewed: Dr. Howard C. Frontz, Dr. William J. Campbell, Dr. William M. Doebele, Mr. M. M. Geissinger, member of Poor Board.

Conclusion: There is no adequate system for taking care of the poor sick in this County.

INDIANA COUNTY

Organization: County Commissioners constitute the Poor Board.

The commissioners maintain a County Home with

187 inmates and a children's unit with 45 inmates. The home formerly had only about 80. It costs 45 to 50 cents per day in the home. A physician is employed to take care of the inmates in the Home and the children's unit.

One physician commented on the separate units, such as the Red Cross, the Welfare, and the Emergency Relief, a condition which too often means a duplication of efforts, *etc.*

There are no provisions for the care of the poor sick by physicians in Indiana County. The commissioners claim they have no money for such care.

Persons interviewed: Dr. Buterbaugh, Dr. Shick, Mr. Silas Streams, funeral director; C. L. Campbell, commissioner; J. M. Thompson, clerk; Miss Agnes Stodtmiller, welfare worker.

Conclusion: The doctors are anxious to work out a plan whereby they may receive some pay for the overhead, medicine, *etc.* They also believe the State Medical Society can do much to set the standard for the counties.

JUNIATA COUNTY

Organization: Township and Borough System.

The poor in this County are cared for by the Poor Boards in the several townships and boroughs. There is no uniformity. Port Royal, for instance, has no plan for medical care of the poor. Mifflin Borough, on the other hand, pays the doctors for such services, though there is considerable reduction in the fees. The doctors interviewed all report doing a great amount of charity work. They are carrying charges in the hope that the people will in time pay for the services.

Persons interviewed: Dr. Penrose Shelley, Port Royal; Dr. Brady Long, Mifflin; Miss Elsa Auker, county nurse.

Conclusion: There seems to be no uniform plan whereby physicians are paid for taking care of the indigent sick. All, according to the county nurse, are required to do too much charity work. They are interested in a plan that will reward them at least to some extent for medical care to the indigent sick.

LACKAWANNA COUNTY

Organization: Mixed Districts. A number of boroughs and townships are combined into poor districts, 21 in all. Several maintain homes for the poor and one has an asylum for the mentally ill.

In the Scranton poor district there were, Oct. 31, 1933, 326 inmates in the home for the poor, and 836 patients in the hospital for the mentally ill. A full-time physician with a staff of nurses and attendants is employed to care for them. The system in this County, at least for the most part is contaminated by local politics. Many use it to grant favors, *etc.*

The Scranton Poor District which has by far the most wealth and the largest population levies a 6-mill tax on an assessed valuation of 119 millions. The cost of the care of the indigent poor and the increase in the number of children this district must care for is becoming a perplexing problem for the Poor Board. Twenty-four years ago it cost less than \$1000 to care for the children in the local institutions; this year it will cost \$35,000 (according to the clerk of the Board).

Carbondale City is organized into a Poor District under special Act of Legislature. Each ward has a board member—6 in all. Each receives \$95 and expenses. The test for assistance by the Poor Board is inability to work. Cases calling for aid because of lack of opportunity to work are referred to the Welfare Or-

ganizations. The district maintains a Home in Greenfield Township. There are now 52 inmates, 52 in the institutions for the mentally ill, and 15 children in orphanages. Dr. Finnegan attends the cases at the Home and most of the "Outdoor" cases on a fee basis. Paid for medical care in 1932, at the Home \$322.54; for "Outdoor" cases, \$121.18. About \$30, of which was for "Talbot cases." Medical supplies were \$13.75.

Poor Masters state that all doctors are doing a great amount of charity work. An attorney stated that great care must be used in aiding among foreign born groups. If one of their number is aided all think they can be. Greatest trouble makers are immigrants who have received aid in native lands.

The doctors are anxious first to secure a County Unit rather than the present mixed system. It will be possible to remove the petty and troublesome politics which prevails in the present system.

There are doctors who are appointed to care for the poor people. In the Scranton Poor District a doctor receives \$60 a month and is subject to call. All persons treated must be approved by a member of the Poor Board or the secretary of the administrative office.

Conclusion: This system is considered very unsatisfactory from the standpoint of care of all the poor. It is often difficult to get one of the doctors appointed to look after poor persons. It is the opinion that the system is very inadequate.

LANCASTER COUNTY

Organization: The poor of the County are under a Poor Board consisting of 6 directors elected by the people for a term of one year, at a fixed salary for their services. The directors estimate an annual budget to the County Commissioners who place the items in the County budget and raise the money necessary by County taxation.

The County maintains a County Home and a hospital for the mentally ill. A full-time physician at a salary of \$3000 per year is in charge. He has a full staff of attendants, nurses, *etc.*, to assist him in caring for both units. Besides those in the County Home there are several families who are cared for by the County Poor Board. The jail physician receives \$600 per year. It would appear that there is no plan in Lancaster County to take care systematically of the indigent sick. One physician reports, "A number of the members of the County Medical Society agreed, verbally, to do their share of free work. No contracts have been made. Medical care has always been secured from the physicians on a voluntary basis, but the demands in the past 4 years have increased so greatly that many complications have developed. The demands are far greater than can be met without funds and, therefore, neglect results."

A physician reports that none of the political subdivisions pay for medical care. There are no county or city physicians employed but the medical profession respond to all cases and usually furnish medicine without compensation. The medical men have been responding well and coöperating with all charities and with the demands of civic organizations.

Those responsible for the administration of city and County seem satisfied with the present method of distributing medical care to the poor. As long as the hospitals, organized charities, and physicians will do the work the Poor Board has little cause to worry.

Persons interviewed: Dr. Frank G. Hartman, president, Lancaster City Board of Health and chairman,

Children's Health Committee; Dr. R. Reeser, Dr. Edgar J. Stein, Dr. Charles P. Stahr, Dr. Asher F. Snyder, Dr. Theodore B. Appel, secretary, Pennsylvania Department of Health; Miss Vesta M. Miller, R.N., and supervisor of Visiting Nurses' Association.

Conclusion: From the foregoing it is evident that no provision exists in Lancaster County for caring adequately for the indigent sick. The hospitals, charity organizations, and members of the medical profession are carrying the burden as charity.

Note: I believe the facts given, statements quoted, and comments made are fair to Lancaster County, and the situation is about as he represents it. The hospitals, charity organizations, and the members of the medical profession have been carrying a heavy load, and the hospitals need some relief from the burden of charity work in their wards. The response of the medical profession has been wonderful and we hope that the new plan for payment for services rendered persons on emergency relief will in a measure reward them for their past cooperation.—CHARLES P. STAHR, Secretary.

LAWRENCE COUNTY

Organization: The Commissioners of the County act as the Poor Board.

Until recently the City of New Castle and the townships were separate Poor Districts. The system then in force was governed by the Act of April 10, 1873. A few years ago the change to the commissioner's system was made and a modern Home for the poor was erected. In it there are all conveniences such as baths, toilets, sun parlors, separate rooms for the sick, refrigeration, etc. The poor enjoy real luxury. The patients seem quite happy in the treatment they receive. The cost is about 80 cents per day per person. A physician cares for the inmates in the Home.

For ten years Dr. Eakin was the county physician. He was succeeded about a year ago by Dr. Cleland. There is no provision throughout the County for taking care of the poor except by the county physician. This is reported as being unsatisfactory.

Persons interviewed: Dr. William A. Womer, secretary, County Medical Society; Dr. William D. Cleland; Dr. James M. Blackwood; Mr. C. C. Green, Superintendent of Public Schools, New Castle; Mr. Hall, manager, Emergency Relief.

Conclusion: There is no satisfactory plan for taking care of indigent sick outside the County Home.

LEBANON COUNTY

Organization: County Unit System. There are 3 Poor Board Directors, each receiving \$400 and mileage. This County has maintained a home for more than 100 years. Persons to be eligible for admission to the home must be residents of the County for a year to be counted "sons" of Lebanon County. There are now 200 inmates in the home.

In addition to those cared for in the Home the Poor Board Directors of the County care for 200 persons in private homes. The doctor receives \$400 and is subject to call for care of the inmates in the home.

The recommendation or approval of the county nurses permit indigent patients to call a physician for which a flat fee of \$1 is paid by the Poor Directors. This plan has been in operation 2 years.

Persons interviewed: Dr. DeWitt Kerr; Dr. Miles R. Kreider, steward in the home; Prof. John W. Smoke, former County Superintendent of Schools; Prof. H. H. Shenk, Lebanon Valley College.

Conclusion: It is evident that this County is making a small effort to pay for medical services.

LEHIGH COUNTY

Organization: County Unit System; County Poor Board.

The County operates under the County System with 3 members constituting the Poor Board, each of which receives a salary of \$1500. A County Home, in which there are 325 inmates, is maintained a few miles west of Allentown. The number has increased from 255 in 1929 to 326 in 1932. If man and wife happen to be in the Home they may live together. A poor tax of 3 mills produces \$429,000, though \$105,000 for 1932 is still uncollected. In the Home there is one trained nurse and one practical nurse. Two physicians who work on alternate months and are subject to call are employed by the Poor Board at \$40 per month.

For some years Lehigh County employed several (18) physicians in certain sections of the County to render medical care to the indigent sick. This plan, until Oct. 1, 1933, cost for care of unemployed and paupers \$350 per month. Now only paupers are cared for.

Under an agreement between the Medical Society of Lehigh County and the Poor Board a fee for medical care has been fixed for calls to the residence of the poor person seeking medical care at \$2 and for office calls \$1.

Dr. Bausch thinks it will not cost the County as much on the new basis as it did on the contract plan. He considers the new agreement quite a victory for medical practice as it maintains the dignity of the profession and at the same time allows the patient to call the physician of his choice. The County Medical Society under the plan agreed to supervise statements rendered to the Poor Board for payment for services rendered. The Society of Lehigh County is strongly opposed to the contract system.

Persons interviewed: Dr. Frederick R. Bausch, chairman, Committee on Economics; General Beary, chairman, Emergency Relief Committee; Mr. Merle Wertman, Superintendent of Schools, Lehigh County; clerk in office of Dr. Butz, County Medical Director; and a member of Poor Board.

Conclusion: In Lehigh County noteworthy progress has been made toward the solution of medical care for the indigent sick. The County Medical Society appears to be alert to the values to the patient, the taxpayers, and the physician of free choice of physician on a fee basis.

LUZERNE COUNTY

Organization: This County includes the Township and Borough System and mixed districts in which several townships and boroughs combine to form a unit, known as the Poor District. For instance, the Central Poor District comprises 18 boroughs, 6 townships, and the City of Wilkes-Barre with a Poor Board of 8 members appointed by the judges. There are in all 36 Poor Districts in Luzerne County.

The Central Poor District supports a County Home and a hospital for the mentally ill. The Poor Board levies a 4½-mill tax upon the assessed valuation of \$264,000,000. The population of this district is more than 270,000.

Under the present system 2 doctors are assigned to the City of Wilkes-Barre at \$125 per month to treat the poor. Under contract Kingston has 3. In the Borough of Plymouth the poor patients are allowed to call upon any physician to treat them. Mr. C. J. Kuschke, president of the Poor Board, considers the welfare of the patient first and honors request for the family physician. In West Pittston, another poor district, the call

or service of a physician must be approved by the Board, otherwise payment will not be made.

A short time ago the County Medical Society, through the Public Relations Committee, passed resolutions condemning the appointment of physicians by contract as being unethical in practice and requested all doctors under contract to resign. It is expected that all will do this.

A plan accordingly has been set up and accepted by the County Society, the carrying out of which will permit all poor patients to choose their physician and the Poor Board in return will pay the physician for home calls \$2, office calls \$1; and for obstetric cases \$25 each. The Medical Society contends that the first consideration is the welfare of the patient toward which the family-physician relationship is the first step.

To do this the County must adopt the unit system. This, no doubt, will meet with much opposition as the present system seems to be strongly entrenched, particularly in certain sections. It is contended that agricultural and industrial areas differ so widely that different plans for taking care of the poor must be made. It would appear, on the other hand, that unnecessary duplication of effort, the multiplication of expense in supporting the large number of poor boards, solicitors, auditors, secretaries, clerks, etc., could be avoided.

Persons interviewed: Dr. Albert R. Feinberg, chairman Public Relations Committee, Dr. Charles Miner, former secretary, Pennsylvania Department of Health, Dr. Ray Doris, Nanticoke; Mrs. Mabel Richmond, secretary, West Pittston Poor Board; Mr. George K. Brown, secretary, Central Poor Board; Miss Marion Airey, manager, County Chest.

Conclusion: The Luzerne County Medical Society is working out a plan in a very concrete way.

LYCOMING COUNTY

Organization: This County operates under the Township and Borough Overseers System. The City of Williamsport is a separate poor district with directors appointed by the City Council. There are accordingly 42 township poor districts, 9 boroughs, and 1 city. Under Section 3 of the Act of May 28, 1931, the several city, borough, township, and other poor districts, as now existing in said County of Lycoming, are abolished as and when the County District is fully organized and ready to receive and care for the poor of said local poor districts, as provided in the Act to which this is an amendment.

Williamsport City is the only Poor District in Lycoming County which makes any provision for medical care of indigent persons. I was informed that a few of the boroughs, namely, Picture Rocks, Montgomery, and Hughesville, are paying physicians for such services.

Persons interviewed: Dr. Brenholtz, secretary, County Medical Society; Dr. Schneider, president, County Medical Society; Dr. Harley, member Public Relations Committee; Dr. Lechner; Attorneys Beidelspacher, former member of Legislature, and Oliver Decker, prominent attorney.

Dr. Harley gave me the story of the development of a plan that is being worked out with the County Commissioners. The plan provides medical service at the expense of the taxpayers for persons who are unable to pay. The plan seems feasible and practicable, and will form the basis for further study.

Conclusion: Except for the sporadic attempts in a few districts, Lycoming County is not furnishing care

for indigent persons. The physicians, however, are alert to the needs of such persons and the plan now in the process of making will, if carried out, establish the family physician relationship, and thereby make possible good medical care for all who need it.

Note: The indigent are being cared for by the physicians of Lycoming County. None are going without attention if it is known to be needed.—WALTER S. BRENHOLTZ, Secretary.

McKEAN COUNTY

Organization: Operates under the County Commissioners. The County Home on a farm of 360 acres contains 90 inmates. The costs of each person per week amounts from \$7 to \$7.50. A physician looks after the poor in the Home, and within a distance of 7 miles. He receives extra money for greater distances. Bradford was a separate district until Jan. 25, 1933, when it became a part of the County System. The 20 persons in the Bradford City Home were transferred at that time into the County Home.

The problem was difficult as there was no provision for taking care of this in the original budget. The commissioner reports that the number of inebriates has greatly increased and this has become a problem as it costs \$10 a week to take care of each. It requires a Court Order to place a person in the Warren State Asylum. The commissioners will pay for all needing medical care. The indigent person may call a physician of his choice, and the bill, if reasonable, will be paid. The poor tax this year, is at the rate of 4 mills. It has been as high as 7 mills. A commissioner states that the County will likely be compelled to issue bonds to take care of the poor.

Persons interviewed: Dr. W. Blair Mosser, Dr. Guy S. Vogan, Dr. Burg Chadwick, Dr. Howard M. Cleveland, Dr. Milo W. Cox, W. H. Halpeny, County Commissioner, and Miss R. Walker, clerk to Commissioner.

Conclusion: Dr. Chadwick laments the fact that there are so many who need aid when the times make it almost impossible to take care of them. He feels that the commissioners are doing the best possible under the circumstances.

MERCER COUNTY

Organization: County Unit System with 3 members of the Poor Board.

This County maintains a Home in which there are 115 inmates, and a hospital for the mentally ill in which there are 230 patients. It costs \$1.88 per week for each person in the home. There are, according to Mr. Dight, member of the Poor Board, 600 families in Mercer County who may be regarded as indigent.

Dr. Yeager has cared medically for inmates in the Home and the mentally ill patients for more than 20 years. This seems to be the only authorized medical care for the indigent poor in this County.

In commenting on the system, Mr. Dight holds the County Unit System best. The only drawback is not enough money to do the job efficiently. The number of mentally ill patients is increasing each year, but it costs about \$10 less per person to keep them in a hospital supported by the County than to send them to a State institution. The ratio of men to women in the hospital for the mentally ill is two to one. Dr. Paul Hope, an experienced physician, says this County has no system for taking care of the indigent sick.

Persons interviewed: Dr. Paul T. Hope, censor; Dr. M. George Yeager, county physician; Mr. Dight, clerk to Poor Board.

Conclusion: There seems to be no system for the

care of the indigent sick except in the County Home. To get pay for such care is often an unpleasant experience for the physician.

Note: The statement of Mr. Dight is correct. The medical care given by Dr. Yeager is very satisfactory, and his salary of \$1200 per year, I think fair. Relative to home care for the indigent: Prior to 1933 the Poor Directors appointed physicians in various locations over the County to do this work. They were paid by the month, salaries ranging from \$7 to \$15. This did not pay for the gasoline the doctors used doing this during the past few years. In January, 1933, the County Medical Society went on record against this practice and all but 2 or 3 of the members who held these County contracts resigned. Two members of the Poor Board refused to recognize our position. As one director's term expired in 1933, we went into politics and reelected him in spite of the opposition. We have been given to understand that there will be no County Poor doctors appointed for 1934, and our request for free choice of physician and for payment for services rendered will then become effective.—JONATHAN B. PERRINE, *Secretary*.

MONROE COUNTY

Organization: The County Commissioners, acting as the Poor Board, maintain a County Home for the poor in which there are about 50 inmates. The doctors report that there is no system in this County for taking care of the indigent sick. The physicians feel the burden for a plan that will be satisfactory to all—physicians, taxpayers, and patients.

The physicians are entirely out of sympathy with the contract plan. They regard it as unprofessional with inferior service and unsatisfactory results.

One physician, Dr. Schull, 85 years old, is employed to care for the poor sick in some districts. He has practiced medicine for 60 years and law for 59 years—a rather unusual man.

In the past 5 months the commissioners have been more considerate and now will pay some bills, provided authorization has been secured before calls are made. The commissioners interviewed verified this reference.

Persons interviewed: Dr. William R. Levering; Dr. Roscoe Vander Bie; Mr. Kunkle, County Superintendent of Public Schools; Mrs. Robert N. Woodall, welfare worker.

Conclusion: There is no satisfactory plan in Monroe County for caring for the indigent sick. The doctors and Mrs. Woodall all feel the work at present is very unsatisfactory.

Note: The County Commissioners are also the Poor Commissioners.

At the present time the Poor Commissioners allow medical care to the indigent sick.

Dr. J. H. Shull is county physician, but I, as his partner, do most of the work under his direction.—R. VANDER BIE, *Secretary*.

MONTGOMERY COUNTY

Organization: Township and Borough System prevails in this County.

Each township, except Mahoning Township, which is joined with Danville as a Poor District, has a separate board of Poor Directors elected by the people.

Danville Borough and Mahoning Township maintain a home in which there are 20 inmates, each of which cost of approximately \$1.00 a day.

Reports made by the several districts filed in the office of the prothonotary show that the directors of some Poor Boards at least pay for medical care. Anthony Township paid \$81.50; Derry Township, \$18.50; Limestone Township, \$27.50.

Danville and Mahoning Poor District have a physician, Dr. A. V. Carl, Danville, who cares for their indigent.

Persons interviewed: Dr. Harold L. Foss, Geisinger Hospital; Dr. Carl Ervin, censor, Geisinger Hospital; Dr. Henry F. Hunt, pathologist, Geisinger Hospital,

and editor of County Medical *Bulletin*; Mr. Fred Diehl, superintendent of County Schools; Mr. Vincent, member, Poor Board, Danville.

Conclusion: Montour County seems to be making an effort to give medical care to the indigent sick.

Note: These conclusions I affirm. The Montour County Medical Society 2 months ago considered the care of the indigent, and it was the consensus of opinion that each physician was doing his part, and caring for those who came to him, and the Geisinger Memorial Hospital is more than doing its share.—JOHN H. SANDEL, *Secretary*.

NORTHUMBERLAND COUNTY

Organization: The City, Borough, and Township System is in operation in this county, except Coal Township and Shamokin Borough Poor District which are combined, and Sunbury which is a City Poor District. One township and 2 boroughs have homes for the poor. Sunbury maintains a Home in which there are 14 patients. Dr. Snyder is paid \$500 to treat medically the indigent sick in Sunbury. From reports made to the Welfare Department, if one compares the items which deals with salaries of the overseers of the poor, including the commissioners and the amounts paid to physicians for taking care of the indigent sick, it is quite evident that \$15,000 paid to the overseers of the poor, and \$12,000 for the medical care of the several hundred poor in the County, is entirely out of proportion. This comparison of figures in the reports, assuming they are correct, would be a strong argument in favor of the County Unit System.

This County seems to be taking care of the indigent sick by paying physicians for treatment and medicine. The Poor Directors honor bills presented for payment provided the charges are reasonable.

Persons interviewed: Dr. Mark K. Gass, secretary, County Medical Society; Dr. Robert McCoy, treasurer, County Medical Society; Mr. Post, former member of Pennsylvania General Assembly; Mr. George Swank, superintendent, Northumberland County Schools.

Conclusion: There is strong sentiment for the County Unit System in place of the present system. The agricultural sections oppose the county unit plan on the grounds that it would raise their poor tax. Though some effort is made to pay the doctors the plan is by no means satisfactory to the physicians nor the people.

Note: There are 34 different Poor Districts in Northumberland County, most of which are run very economically, and the poor tax is low. In the coal region, especially Mt. Carmel, Mt. Carmel Township, Shamokin, and Coal Township, the poor tax is very high. Any attempt to have a central County Poor Board would meet with strong opposition in the western end of the County. The poor house at Sunbury cost \$4500 a year for 14 patients. There is a strong sentiment against the County Unit System.—MARK K. GASS, *Secretary*.

PERRY COUNTY

Organization: County Unit System. This organization operates under the act providing for 3 poor directors. The County maintains a home at Loysville, in which there are 29 inmates at a cost of \$175 a year for each person. Poor Board members each receive \$300 a year and the attending physician receives \$100 a year.

There is a noticeable increase in the number of indigent persons. One physician reports a fee of \$10 was agreed upon for obstetric cases, but that the Poor Directors want to reduce it to \$7. He also reports doing \$1000 worth of work last year for which he knows the persons will never pay. He began practice in Duncannon 26 years ago, when there were 27 doctors in Perry County (only 3 of them remain) and at the present time there are only 14 doctors in the County.

Dr. Carl, Newport, reported a plan was offered the

Poor Board and commissioners whereby the doctors would be paid for taking care of those on relief. The plan was rejected. He claims doing \$1500 worth of work for which service he never expects to receive anything.

The Poor Board members, particularly the woman member, think the doctors should do a larger share of the work as charity.

Persons interviewed: Dr. Benjamin F. Beach, Duncannon; Dr. John E. Book, Newport; Dr. Lenus A. Carl, Newport; Dr. Catharine Johnston, secretary, County Medical Society; Judge Schull, New Bloomfield; Mrs. Kell, member, Poor Board.

Conclusion: The Poor Board members think the physicians should carry the burden as charity, and do not feel like paying them for caring for the indigent sick.

POTTER COUNTY

Organization: Operates under County Commissioners as Poor Board. County maintains a County Home, which costs for each inmate \$5 to \$6 a week. Patients in the State Mental Hospital are a great expense to the County. Number of mentally ill increasing yearly. The poor tax rate in Potter County for present year is 10 mills, by far the highest thus far reported.

It seems that the system was satisfactory until 2 years ago when the amount of money proved insufficient to take care of the indigent sick. This has resulted in the doctors carrying the burden as charity. They find that the patients for whom they cared when they were able to pay now want the same physician and do not refuse them. Some of these people, if the times improve, will pay, provided the bill is not too large. The doctors accordingly must have faith in the future.

Persons interviewed: Dr. Ross H. Jones; Dr. Bentley; Frank Howland, County Commissioner; Mr. Akely, superintendent of Schools; and Senator Baldwin, now Auditor General.

Conclusion: Potter County is making a great effort to meet its obligation in taking care of the poor. The doctors are making a great sacrifice as are others in endeavoring to cope with the situation.

SCHUYLKILL COUNTY

Organization: County Unit System with 3 Poor Board members.

This County maintains a Home which has 580 inmates, costing 80c per day per inmate; a unit for the mentally ill with 502 patients; a hospital unit with 146 patients. The Good Samaritan Hospital gives aid to all in the Home. A poor tax of 3½ mills is levied and brings in \$400,000.

A doctor at a salary of \$2500 is in charge of the Home. Two regular physicians, 10 attendants, etc., with a total of 40 persons are employed to care for the sick. In the districts, physicians for the poor and out-door relief are appointed at \$100 a year to treat the sick, etc. The secretary of the Poor Board reports that 5 years ago the number of indigent persons was 400 and that now the number is 1100.

One doctor interviewed in this County is typical of those under contract practice. He related that he had a borough and 2 adjoining townships under his care and that he was paid \$25 every 3 months for this work. I asked him how he knew the patients were poor and unable to pay. Whereupon he produced a list furnished by the Poor Board, and we counted 52 names. I said, "Surely it is worth more than \$100 a year to take care of 52 old people." He replied, "I don't take care of all of them. Many of them call on other physicians." He

doesn't take care of the entire list given him. This applies to others in the County appointed to care for the poor. Many of those on the list are furnished with groceries by the Poor Board; some live with friends or relatives, and a few keep a home with the help of the Poor Board, etc.

Persons interviewed: Dr. Arthur B. Fleming; Dr. Charles V. Hogan; Dr. J. Russell Sweeney; Dr. William V. Dzurek; Mr. Joseph McKeon, member of Poor Board; Mr. William Powell, steward.

Conclusion: The Poor Board is of the opinion that it is doing its best for the poor of Schuylkill County. The doctors, on the other hand, feel the system is unsatisfactory, as it does not adequately take care of the indigent sick.

SNYDER COUNTY

Organization: At present the County is operated under Borough and Township System. This means that each district has a Poor Board.

This County for many years was under the County Commissioners until 1930 when the County adopted the separate district Poor Board plan. It is reported that one township under the commissioner plan permitted the doctors to treat poor patients and the commissioners paid the bill. The bill in one case amounted to more than \$1100, and the doctor sued the commissioners for the amount and won the case. The several districts became alarmed at this doctor's medical bill and it is believed that this case did much in bringing the County to the district system. "An unscrupulous doctor is responsible for the change."

The indigent poor are cared for in the homes of relatives or strangers and the expense of maintaining such persons is paid by the Poor Directors of each district.

The attempts to provide medical care, if any, are meager. One doctor reports that the Poor Boards in some districts are hostile towards paying medical bills rendered and in some cases absolutely refuse payment. A few districts employ physicians who are unable, because of age, to treat or care for the poor. This is done to keep down expenses. Chaplin Township is the only district having a doctor under contract, and this is the result of the experience related above.

Persons interviewed: Dr. Harry F. Ulrich; Dr. Russel W. Johnson; Dr. Howard F. Straub; Prof. J. W. Woodruff, Susquehanna University.

SUSQUEHANNA COUNTY

Organization: Township and Borough System.

Some of the townships have combined, as: Auburn, Rush, Forest, Lake, and Springville, forming one Poor District which operates a County Home with from 8 to 10 inmates. A similar number are helped in their own homes. Medical service at the Home is by Dr. Fry of Rush, on a fee basis, while such service in individual homes is by the doctor nearest the case.

Mr. Pierson, Poor Overseer, says no doctor is paid unless the call is authorized before the visit is made. He believes that the total poor cost is less than if operated by County Board and County Home; tax rate is 3 mills.

Dr. Fry, at one time working on contract for the Poor Board, feels that the fee system which has been used for the past few years is more satisfactory. He does all the work at the Home and for several in their homes. Frequently the Red Cross Nurse enters and the need of his services are based on her judgment of the case. He has a number of "borderline" cases (those

not legally poor charges) but too poor to pay a doctor. The care of the mentally ill is the most expensive item.

New Milford Township and Montrose Borough each maintain its own almshouse. New Milford averages 8 inmates with provision for some aid to a few in their homes. Physicians are paid on a fee basis which amounts to from \$40 to \$50 per year, for those not entirely on the town the amount is about \$20. Poor tax, past 2 years, 6 mills.

Montrose, at present, has no inmates in the Home but is caring for 13 persons, partially, in their own homes. Mrs. Benedict, Poor Overseer, believes that this partial aid in the individual's home maintains a greater self-respect than if placed on complete relief in the almshouse and it is less expensive in the end. The fee system is used. Occasionally a nurse has been employed. Tax rate 3 mills.

Dr. Gardner, secretary, the County Medical Society, believes that the fee system prevails throughout the County and whenever a visit is authorized, there is no difficulty in collecting. There are, however, many poor who are not, officially, town charges, for whom medical service is a "gift of charity." In his more active years, his charity cases approximated \$500 per year, occasionally \$1000.

Conclusion: The fee system is the more satisfactory system. All doctors are doing a great amount of charity work for those who are not officially considered poor charges, but receive their pay when the call is authorized by the poor overseers. Many of these charges are cared for in the individual home. There is an opinion that the District System is more satisfactory than a County one would be.

Persons interviewed: Dr. Harvey Fry, Rush; Dr. A. E. Snyder, New Milford, president, County Medical Society; Dr. E. R. Gardner, Montrose, secretary, County Medical Society; Mr. Vin Pierson, Auburn, Poor Overseer, Rush-Auburn District; Mrs. Rebecca Benedict, Montrose, Poor Overseer; Mr. Roland Leslie, New Milford, Poor Overseer.

WASHINGTON COUNTY

Organization: Operates under the County Unit System with the directors elected by the people.

A County Home with 480 inmates is maintained at a cost of 37c per person per day and a Children's Home with 145 inmates at a cost of 55c per day per person.

A physician in charge of the Home receives \$75 per month and the physician in charge of the children's unit is paid \$50 per month. The Poor Board also cares for 500 people in homes who were thrown back on the County by the Emergency Relief.

Mr. Leo A. Maloney, clerk to the commissioners, in an effort to explain the items reported to the Welfare Superintendent, was unable to justify the amount paid for the care of the insane, etc. He said if the matter was referred to him he would be glad to look over the several items, but that he would need time to do it.

The Emergency Relief comes in for a large share of criticism because of the great expense for the cost of organization. While this is general in the State, it was more forcefully stressed here as the charge has worked a hardship on the Poor Board.

Persons interviewed: Dr. John B. McMurray; Mrs. Lucy W. Bigger, member of Poor Board; Mr. Leo A. Maloney, clerk to the Commissioners.

Conclusion: There is no provision for the care of the poor sick according to a statement by Mrs. Bigger, and she reports that the doctors are doing a lot of charity work.

WAYNE COUNTY

Organization: Township and Borough System.

With the exception of Honesdale and Texas Township, which by special act are one Poor District, each township and borough forms a Poor District. The Honesdale-Texas district maintains a Home which now has 12 inmates. The business is transacted by three members appointed by court. Tax levy is 2 mills. Outside relief is being given to 10. Dr. Masters attends all on fee basis. He stated that about 20 per cent of his practice is "donated," that some of these could pay if they would, but fully \$500 worth of service is rendered to those who cannot pay and who are not town charges.

Mrs. Deemer stated that the Poor District had co-operated with the welfare workers; that the district pays for all medical services for the indigent poor, but that all doctors give much service to the welfare group.

Mrs. Leine, who has been interested in welfare work in the County for 14 years, stated that the work in the County has been well organized and administered. She and Mrs. Deemer both feel that it is a mistake to change the plan, but the change has been ordered. Mrs. Leine emphasized the fact that all doctors are giving generously of their services.

There is a tendency among the younger doctors to blacklist those who could pay but do not. The Medical Society members are widely scattered and there is no record of the amount of free services rendered by the physicians of the County.

Persons interviewed: Dr. H. L. Masters, White Mills, Committee on Public Relations; Dr. Harold Koch, Honesdale, secretary, County Medical Society; Mrs. Deemer, Honesdale, Poor Master; Mrs. Leine, Honesdale, welfare worker.

Conclusion: The fee system is used for the town paupers but doctors of the County are doing much "donation" practice for those who are not. There seem to be some persons who pay all bills except the doctor bills, and an attempt is being made by some to blacklist such persons. The general opinion is that the present system of coöperation between the Poor Board and the Welfare Committee is a satisfactory arrangement for it is well organized and administered by people who understand local conditions and that it is with regret that the work is being placed in the hands of people not familiar with the needs of the County.

WYOMING COUNTY

Organization: Under the Commissioners of the County.

The commissioners as Poor Board receive \$300 per year each. The poor are maintained in individual homes.

Total number given relief in 1931—158. Total relief—\$22,270 (this includes doctors' fees). Total cost of administration—\$2471. Total cost—\$24,741. Average per person—\$157.

The mentally ill in this County have always been paid for from the general County Fund. Amount this year—\$2864.

Mr. Kasson expressed his personal belief that a County Almshouse would be preferable to the present plan. Present tax, 6 mills.

Doctors are paid fees, those nearest the patient being called. Dr. Lazarus found that last year \$862 was paid to physicians. The doctors of the County made a careful estimate of services rendered at the regular fee charge. This estimate was \$5000. The County Medical Society has presented a plan to the Poor Board, a copy of which follows.

Persons interviewed: Dr. William W. Lazarus, Tunkhannock, District Censor; Dr. Arthur B. Davenport, Tunkhannock, secretary, County Medical Society; Mr. E. C. Kasson, Tunkhannock, clerk, County Commissioners; Dr. Kenneth Taylor, Meshoppen.

Conclusion: The doctors of the County are making a real attempt to discover a satisfactory plan. In their study of conditions for one month, it appears from the doctors who responded that the entire number received about \$1000 of the \$5000 estimated services rendered. The following plan is but a brief outline of the original.

Note: The amount of work stated was estimated on the basis of the one month, during which close account was kept of the work done.—ARTHUR B. DAVENPORT, *Secretary*.

WYOMING COUNTY PLAN (*Proposed*)

This County has 13 physicians, all of whom belong to the County Medical Society.

The Poor Board agrees to employ only members of the County Medical Society.

Executive Committee.—Three members.

Committee to distribute poor work, so that it will cost the least. Members of Society will use the utmost care to keep cost low.

Grievance Committee.—One layman, 2 doctors, 2 commissioners.

Layman to be chosen by commissioners and doctors. They get no remuneration. Their decision is final on all questions.

Poor Board.—Three commissioners and clerk.

Class A.—Any person getting poor orders will have the right of free medical care.

Class B.—Cases not on the poor list but unable to pay for medical care and buy food at the same time, will be referred to the Grievance Committee for decision. Fee schedule shall be the County Medical Society regular schedule.

Fee Schedule.—Office Calls—\$1 and medicine cost. House Calls—\$2 and 50c per mile. Confinement—\$20 and mileage.

YORK COUNTY

Organization: This County operates under the County Unit Plan with a Poor Board of 3 members and a County Home on a farm, near the City of York, which was built a few years ago. It is provided with every modern convenience for the care of the poor and sick. A doctor looks after the indigent in the home and a physician is assigned to the prison.

Two physicians are appointed to care for the indigent in the City of York and one physician for similar duties in Hanover. Each receives \$75 per month.

Last year one of the physicians appointed by the Poor Board in York found the work too heavy and instead of calling upon other physicians to help him, he allowed a druggist to see patients and prescribe drugs for the latter. The druggist was arrested by the medical authorities for practicing medicine without a license, and when brought before the magistrate, he testified he was authorized by the doctor to give medicines, etc. The Poor Board physician, in testifying, accepted entire responsibility and the case against the druggist was not pressed. The doctor, however, was forced by the County Medical Society to resign his position as County Poor Board physician for unethical practice. This unfortunate experience would strongly favor the placing of control and regulation of medical treatment of the poor under the County Medical Society.

The visiting nurse's association in York County aids materially by coöperating with the doctors. These nurses report all persons in need of medical care to the

Poor Board and see that authorization, when possible, is made for it. The nurses feel that the medical fraternity is carrying too heavy a burden as charity.

Persons interviewed: Dr. P. Noll, secretary, County Medical Society; Dr. Charles Rea, chairman, Committee on Medical Economics; Dr. Milton H. Cohen, treasurer, County Medical Society; Dr. Francis R. Wise, president, County Medical Society; Miss Nettie Ford, chairman, State Board for Registration of Nurses.

Conclusion: It is the opinion of some of the physicians of York County that the present system was satisfactory prior to 1929, but now it is entirely inadequate to meet the unemployment situation and that the family doctors and hospitals are carrying the burden.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

The State Emergency Medical Relief Department will pay for insulin necessarily used to treat the individual in diabetic coma and for a few days following the attack.

A plan of diabetic management, suggested by Dr. Alfred Stengel, professor of medicine, University of Pennsylvania, for use in all cases, is submitted.

DIABETIC MANAGEMENT AND EMERGENCY RELIEF*

ALFRED STENGEL, M.D., Philadelphia

I have proceeded on the assumption that insulin will frequently be unobtainable and that the physician will be dependent on the use of diet, as indeed he ought to be in the case of milder forms of the disease.

In making suggestions for diets, I have confined these to the simplest types and have not undertaken to indicate the more continued treatment of the disease. The idea is that the patient is to be given immediate help lest he drift into a worse condition, but how he will be handled later will depend on the physician's own further information or some arrangement that may be made in the future to give such patients the benefit of group management however undesirable this may be from certain angles of consideration.

A plain table of ordinary foodstuffs is added, with their content of protein, fat, and carbohydrate. Possibly some note might be appended to this to the effect that the physician is expected to make a study of these foodstuffs with the object of learning how to make substitutions and variations in the proposed diets.

It is impossible to escape the use of some foodstuffs which are expensive, such as eggs, milk, and butter. I have tried to consider cost in suggesting olive oil instead of cream, but it is impossible to escape the higher priced things altogether.

The treatment of diabetes when insulin is not readily available requires careful and faithful observance of dietary restrictions. *A majority of diabetics can be controlled without insulin.*

The diets here advised are arranged with reference to the fact that insulin may not be available unless the threat of diabetic acidosis is apparent.

* Prepared at the request of the Medical Advisory Committee to the Pennsylvania Emergency Relief Board.

Diabetics financially able to use insulin often do so when dietary measures alone would be more advantageous. The tendency to use insulin freely and neglect dietary restrictions has certainly been overdone.

Patients unwilling to control their diet rigidly when diet without insulin will suffice and physicians who will not take the trouble to regulate such diet contribute to unnecessary costs of the medical care of the disease. The patient and the physician should expect and receive no assistance in thus adding to wasteful expenditure.

Cases of diabetes may be classified as: (1) Mild and easily controlled by diet; (2) moderate and often controllable by diet; and (3) those usually requiring insulin. Fortunately mild diabetes is much more common than the severe forms.

Note A. Blood sugar determinations give a more accurate measure of diabetes than urine examinations. Mild diabetics may have a continuous excess of blood sugar without showing more than occasional traces of sugar in the urine. Such patients are liable to the complications of diabetes (cataract, arteriosclerosis, skin infections, etc.) and should be under treatment governed by blood sugar determinations.

Coma may be due to sudden reduction of blood sugar by insulin (hypoglycemia). A known diabetic coming under observation in coma may have this hypoglycemic coma or diabetic coma. Only blood sugar estimation can definitely determine the diagnosis and appropriate treatment.

Elderly, and especially well nourished elderly, individuals who have recently shown sugar in the urine are generally mild diabetics.

Children or young adults having sugar in their urine are more often severe diabetics but may prove to be mild cases.

Diabetics, whether young or old, who are emaciated, show marked polyuria, and have acetone and diacetic acid in the urine fall in the severe group and will usually require insulin though a preliminary dietary management sometimes suffices to control the disease for a time.

Treatment—First Steps

(a) The mildest cases, especially in those who have been accustomed to overeating, will often be controlled by quantitative reduction of diet with some especial restriction of starches and sugars. (Diet No. 1.)

Should this dietary plan prove ineffective in relieving glycosuria after a week, Diet No. 2 should be used, or next Diet No. 3.

(b) Moderate diabetes will often be controlled by a slightly increased quantitative dietary restriction and greater control of starches and especially sugars. (Diet No. 2.) Such patients should be seen weekly, with urinalysis one hour after a meal, until the condition is controlled. Should this diet be ineffective, after 2 weeks use, try Diet No. 3.

(c) Diabetics showing evidences of considerable severity (considerable sugar in the urine, undernourishment, and perhaps acetone in the urine) should be placed on a more restricted diet. (Diet No. 3.)

Treatment—In Obstinate and Severe Cases

If cases in groups (a), (b), and (c) remain uncontrolled by Diet No. 3, insulin will probably be necessary. A faithful preliminary use of the diets should, however, be insisted on.

(d) Severe diabetics (glycosuria, polyuria, acetone, and diacetic acid, emaciation), if insulin is unobtainable, may be temporarily managed by severe restrictions of diet (Diet No. 4) but if transfer to a hospital, in which insulin may be available, is possible, this should be done. If impending coma is evident, orange juice, cereal food, and other carbohydrates should be given; and efforts made to obtain and use insulin.

(e) Diabetic coma is a serious emergency and re-

quires the immediate use of insulin. The following program should be used but if it cannot be carried out in the home, the patient's welfare demands that he be sent to a hospital equipped to give the required aid. Determination of blood sugar and plasma carbon dioxide should always be made if possible. If impossible, the presence of sugar, acetone, and diacetic acid in the urine and the symptoms of diabetic acidosis suffice to justify immediate treatment and to guide further treatment.

Give, at once, 50 units of insulin. Accompany this with 20 grams of glucose as 200 c.c. of orange juice by mouth, or, if the patient is unconscious or vomits, give 20 grams of glucose in 10 per cent solution intravenously, unless blood sugar is more than 200 mg.

Provide adequate warmth (blankets and hot water bottles) to raise and keep temperature normal.

As soon as possible, give 1000 c.c. normal saline by hypodermoclysis. Repeat 50 units of insulin and 20 grams of glucose in one-half to one hour.

When possible obtain blood carbon dioxide and blood sugar one-half hour after each dose of insulin and glucose. As soon as report is received (should be less than one-half hour) give 20 to 50 units of insulin with 10 to 20 grams of carbohydrate hourly until the blood carbon dioxide is 25 to 30 vol. per cent. Aim to keep blood sugar above 200 mg.

Give cleansing enema as soon as time permits.

Give 100 to 200 c.c. of fluid by mouth hourly as soon as patient is conscious, using requisite amount of a carbohydrate-containing fluid and provide additional fluid by alternating with hot bouillon containing 1 per cent sodium chloride. Occasionally the stomach is dilated with fluid. Gastric lavage is then required and fluids in adequate amount must be given hypodermically and intravenously.

For vasomotor collapse, appropriate stimulants may be required, such as caffeine-sodium benzoate, 0.5 gram (gr. vii ss), every 2 or 3 hours.

When blood carbon dioxide has risen to 30 or 35 vol. per cent, or plasma carbon dioxide to 35 or 40, or when impending acidosis is recognized early, the intensity of treatment may be less vigorous. Twenty units of insulin every 2 or 3 hours, with 10 to 20 grams of glucose by mouth accompanying each dose of insulin and with 100 to 200 c.c. of total fluid hourly may suffice.

Blood or plasma carbon dioxide and blood sugar should be examined at least every 2 to 4 hours.

The physician is expected to make a study of these foodstuffs with the object of learning how to make substitutions and variations in the proposed diet.

*DIET No. 1.—Calories, 1770. Protein, 66; fat, 114; carbohydrate, 120

Breakfast			Grams of		
Grams	Article	Household measure	P	F	C
100	10% fruit	½ Grapefruit			10
100	Cereal	Oatmeal (3 tbsp.)	3		12
10	Bacon	2 Crisp slices	1	5	
	Eggs	2	12	12	
20	Bread or toast	1 Slice	2		10
10	Butter	1 Square			9
200	Milk	1 Cup	6	8	10
	Tea or coffee without sugar				
			—	—	—
			24	34	42

* All diets are arranged for use of adults of average size and (in his previous normal condition) of average weight. Children and undersized adults may have the diets somewhat diminished.

			Dinner			DIET No. 3.—Calories, 950. Protein, 51; fat, 42; carbohydrate, 92					
Grams	Article	Household measure	Grams of			Breakfast					
			P	F	C						
						Grams	Article	Household measure		Grams of	
	Broth (fat-free)	1 Bowl									
90	Meat (lean)	1 Small portion	18	14							
100	5% Vegetable	3 Tablespoons	1		3						
100	10% Vegetable	3 Tablespoons	1		6	100	10% Fruit	1 Orange	1		10
30	Bread	1½ Slices	3		15		Eggs	2	12	12	
20	Butter	2 Squares		17		20	Bread	1 Slice	2		10
100	10% Fruit	1 Orange	1		10	5	Butter	½ Square		5	
	Cream 20%	⅓ Cup		15		100	Skim Milk	½ Cup	3	1	5
	or Olive oil	1 Tablespoon					Coffee or tea without sugar				
	Coffee or tea without sugar								—	—	—
			24	46	34				18	18	25
			Supper			Dinner—50					
							Cottage cheese	1 Cup	10		2
60	Meat	½ Portion or 2 eggs	12	10		100	5% Vegetable	3 Tablespoons	1		3
100	5% Vegetable	3 Tablespoons	1		3	150	10% Vegetable	4½ Tablespoons	2		9
100	20% Vegetable	1 Medium potato	2		20		or				
20	Bread	1 Slice	2		10	100	10% Fruit	½ Grapefruit			
20	Butter	2 Squares		17		20	Bread	1 Slice	2		10
100	10% Fruit	1 Orange	1		10	5	Butter	½ Square		5	
30	20% Cream	2 Tablespoons							—	—	—
8	or Olive oil	2 Teaspoons		7					15	5	24
	Coffee or tea without sugar										
			—	—	—						
			18	34	43						
			Supper—60			Dinner—50					
							Meat (lean)	Small portion or 2 eggs	12	10	
						100	5% Vegetable	3 Tablespoons	1		3
						100	20% Vegetable	1 Medium potato	2		20
						20	Bread	1 Slice	2		10
						10	Butter	1 Square		9	
						100	10% Fruit	1 Orange	1		10
							Coffee or tea (without sugar or cream)				
									—	—	—
									18	19	43
			Breakfast			*DIET No. 4.—Seven Feedings. Calories, 988. Protein, 52; fat, 20; carbohydrate, 150					
100	10% Fruit	½ Grapefruit			10			6 a. m.			
100	Cereal	Oatmeal (3 tbsp.)	3		12		Grams	Article		Grams of	
	Eggs	2	12	12		150	Orange juice	2		15	
200	Milk	1 Cup	6	8	10	100	Milk	3	4	5	
	Tea or coffee without sugar										
			—	—	—						
			21	20	32						
			Dinner			9 a. m.					
	Broth (fat-free)	1 Bowl									
100	Meat (med. fat)	1 Average portion	15	20		200	Orange juice with eggwhites—2	2		20	
100	5% Vegetable	3 Tablespoons	1		3						
100	10% Vegetable	3 Tablespoons	1		6						
30	Bread	1 Slice	2		10						
10	Butter	1 Square		9							
100	10% Fruit	1 Orange	1		10	100	Orange juice with lactose milk	1		10	
200	Milk	1 Cup	6	8	10	10		3	4	5	
	Coffee or tea without sugar					100					
			—	—	—						
			26	37	39	200	Orange juice with eggwhites—2	2		20	
								8			
			Supper			12 noon					
60	Meat (lean)	½ Portion or 2 eggs	12	10							
100	5% Vegetable	3 Tablespoons	1		3						
50	20% Vegetable	½ Medium potato	2		10						
20	Bread	1 Slice	2		10						
15	Butter	1½ Squares		13							
100	10% Fruit	1 Orange	1		10	200	Orange juice with eggwhites—2	2		20	
30	20% Cream	2 Tablespoons						8			
	or Olive oil	2 Teaspoons		7							
	Tea or coffee without sugar										
			—	—	—						
			18	30	33						
			Total amounts needed for diet			6 p. m.					
							Orange juice	1100 c.c.			
							Lactose	15 grams			
							Milk	500 grams			
							Eggwhites	6 grams			

12 midnight

Grams	Article	Grams of			Protein	Fat	Carbo- hydrate
		P	F	C			
150	Orange juice	2		15	21	4	0
100	Milk	3	4	5	22	10	0
		—	—	—	17	11	0
		52	20	150	27	18	0
					12	5	0

Composition of foods

Vegetables* (fresh or canned)

- 5 per cent: Lettuce, cucumbers, spinach, asparagus, rhubarb, endive, marrow, beet greens, dandelion greens, celery, tomatoes, Brussels sprouts, cauliflower, egg plant, cabbage, radishes, string beans (canned), artichokes (canned), watercress.
- 10 per cent: String beans, pumpkin, turnip, squash, beets, carrots, onions, green beans (canned).
- 15 per cent: Green peas, artichokes, parsnips, lima beans (canned).
- 20 per cent: Potatoes, shell beans, baked beans, green corn, boiled rice, boiled macaroni.

Fruits

- 5 per cent: Ripe olives (20% fat), grapefruit.
- 10 per cent: Watermelon, strawberries, lemons, oranges, peaches, cranberries, muskmelon, pineapple, blackberries, gooseberries.
- 15 per cent: Cherries, apples, pears, raspberries, currants, apricots, huckleberries, blueberries.
- 20 per cent: Plums, bananas, prunes.

Miscellaneous

- 5 per cent: Unsweetened and unspiced pickle.

Vegetables and Fruits

	Protein	Fat	Carbo- hydrate
Vegetables 5%	1%	0%	3%
Fruits 5%	1	0	5
Vegetables 10%	1	0	6
Fruits 10%	1	0	10
Vegetables 15%	2	0	15
Green peas	7	0	15
Fruits 15%	1	0	15
Potato	2	0	20
Beans	7	0	20
Corn (green)	3	1	20
Olives (green)	1	10	2

Nuts

Almonds	24	54	7
Walnuts	16	63	7
Chestnuts	5	1	38
Pecans	11	70	13
Peanuts	26	39	24

Cooked Meats

Beef roast	22	28	0
Round steak (fat removed)	27	8	0
Leg roast of mutton	25	22	0
Pork roast	26	10	0
Smoked lean ham	20	20	0
Bacon, medium cooked	10	30	0
Bacon, lean crisp	10	0	0

Fish and Shell Fish

Cod (fresh), flounder, haddock, halibut, mackerel, shad, bluefish, brook trout, lobster	17	1-5	0
Finnan haddie and white fish	22	0	0
Cod (salt)	27	0	0
Salmon	22	13	0
Trout (lake)	17	10	0
Clams and oysters	7	1	2
Scallops	15	0	3

Dairy Products, Etc.

Milk, (whole, cows)	3.5	4	4.5
Milk, (condensed, unsweetened) ...	9	9	11
Cream, 20% fat	2	18	4
Cream, 40% fat	1	40	3
Butter	0	85	0
Oleomargarine	0	92	0
Olive oil	0	100	0
Egg (one)	6	6	0
Cheese, cottage	17	2	0
Cheese, cream	26	34	0
Cheese, swiss	27	35	0

Meals, Breads, Cereals

Bread, white or graham	9	1	52
Cornmeal	8	5	74
Oatmeal	16	7	67
Oatmeal (cooked weight)	3	0	12
Rice, boiled	3	0	24
Macaroni, cooked	3	1	16

MEDICAL RELIEF PROGRAM

To facilitate understanding the medical part of the relief program, it should be remembered that medical order blanks are to be issued only for: (1) Conditions causing acute suffering; (2) conditions endangering life; (3) conditions interfering with earning capacity; (4) conditions threatening a new permanent but, at the same time, preventable handicap.

Applicants applying for medical relief must be interrogated by the relief worker with the thought of learning from them which of the four classes covers the ailment complained of.

Classes (1) and (2) may be attended by the physician immediately with every reason to believe that unless the patient is misrepresenting conditions to him he will be paid for his services in accordance with the rules and regulations covering acute illness.

Classes (3) and (4) are not to receive orders until after a report from an investigator.

If the condition has been misrepresented to the physician who is called upon to attend the patient he will be paid for one visit—office visit when the patient is ambulatory, and home visit if patient is confined to home or room.

In classes (3) and (4) the attending physician must receive authorization from the local medical advisory committee before making the second visit.

It is a disagreeable task for the local medical advisory committee to call a physician's attention to unnecessary visits. All visits are considered unnecessary

* Reckon average carbohydrate in a mixture of vegetables of 5 per cent group as 3 per cent; of 10 per cent group, as 6 per cent.

if made in excess of the number the patient would willingly pay for, if and when employed at his usual earning capacity. Remember that Emergency Medical Relief compensates physicians only for the minimum care to preserve life and relieve acute suffering, without exercising the privilege of appraising the necessity for subsequent care.

PRENATAL CARE

The State Emergency Medical Relief Board calls your attention to the fact that obstetric care on and after March 1, 1934, must be rendered in compliance with the *Rules and Regulations*, as originally outlined.

Prenatal care is that part of maternal care which has as its object the complete supervision of the pregnant woman in order to preserve the happiness, health, and life of the mother and child. Therefore all pregnant women should be under medical supervision during their entire pregnancy, for it is only by careful routine prenatal care that pregnancy and labor can be made safer.

Food orders given to relief recipients contain notices requesting them to consult their physician for obstetric care. Relief workers are instructed to arrange an interview between the pregnant woman and the physician of her choice. The Emergency Health nurses will assist in bringing about this contact even to taking the pregnant woman to the office of the physician, if necessary. CWA nurses are instructed to assist in bringing about similar contacts. Local nursing organizations are requested to arrange for interviews between the pregnant woman and the physician; and the physician is to issue nursing orders for nursing care for the pregnant woman.

Physicians will be expected to attend to patients and keep records in accordance with the following standards which represent the views of leading obstetricians:

STANDARDS OF PRENATAL CARE

I. The physician at the first visit should obtain the following data and record the facts:

A. Patient's past history—

1. Diseases. Question particularly as to the following:
 - (a) Tuberculosis or exposure to tuberculosis.
 - (b) Scarlet fever.
 - (c) Tonsillitis.
 - (d) Rheumatism.
 - (e) Diphtheria.
2. Surgical conditions and accidents, especially abdominal and pelvic operations.
3. Menstrual history—cycle, amount of flow, duration, and pain.

B. Character of previous pregnancies and labors. Secure the following data of previous pregnancies in chronological order:

1. Date of termination.
2. Period of gestation.
3. Complications during pregnancy.
4. Labor.
 - Onset—spontaneous or induced.
 - Character.
 - Duration.
 - Termination of labor.
 - Spontaneous or artificial.
 - If artificial, what method.
 - Other complications.
5. Puerperium.
 - Infection.
 - Hemorrhage.
 - Operations following.

6. The newborn.

Alive or dead at birth.

If dead, macerated?

Premature or term.

Breast fed—yes or no. Duration.

Baby alive now? If dead, give cause of death.

C. Present pregnancy:

1. Date of last menstruation and character thereof.
2. Nausea and vomiting and quickening.
3. Estimation of date of delivery.

II. Then proceed to—

A. Physical examination.

1. Taking and recording of the systolic and diastolic blood pressure, temperature (preferably p. m.), pulse, and weight.
2. Skin, nutrition, head, mouth, neck, chest, heart, lungs, breasts, extremities.
3. Abdominal examination, palpation, auscultation, mensuration.
4. Vaginal examination. No vaginal examination during the last month of normal gestation without strict aseptic precautions.
 - (a) The necessity of a vaginal or rectal examination is insisted upon—
 - (1) To determine the existence of a pregnancy.
 - (2) To determine the position of the uterus.
 - (3) To discover any pelvic tumor.
 - (4) To determine the presence of venereal disease, and if suspected to take smears.
 - (5) Speculum examination of the cervix and vagina is advised in early pregnancy if indicated.
 - (b) In presence of vaginal bleeding at any period of gestation only rectal or aseptic vaginal examination should be made.
5. Pelvic measurements.
 - (a) Intercristal.
 - (b) Interspinous.
 - (c) External conjugate.
 - (d) Diagonal conjugate.
 - (e) Transverse diameter of the outlet.
 - (f) Palpation of pelvic contours, promontory, sacrum, coccyx, ischial spines, arch, tuberosities.
6. Taking of blood for Wassermann reaction.
7. Urinalysis.

Specific gravity. Albumin. Sugar.

A microscopic examination of the sediment is advisable as a matter of routine, and it is a necessity if albumin is present. If there is any evidence of trouble, a 24-hour specimen should be secured.

III. If pregnancy is determined, then give minute instructions to the patient in the hygiene of pregnancy.

- A. Diet. (About 85 grams (3 ounces) protein daily; calories, 2500 to 2800, daily; calcium, 2 grams daily.)
- B. Exercise, rest, sleep, and recreation. (Eight to 9 hours sleep during the night; 2 hours, during the day.)
- C. Clothing, including shoes.
- D. Baths and care of the skin.
- E. Care of the bowels. (Roughage; intestinal lubricants; regularity. Water should be taken freely.)
- F. Care of the kidneys.

- G. Care of the teeth. (Use tooth brush after each meal; visit the dentist several times.)
- H. Care of the breasts.
- I. Intercourse during pregnancy. (Interdicted during last 2 months.)
- J. Maternal impressions.
- K. Hygiene of the home and preparation for home delivery.
- L. Mental hygiene.

Patients should be examined by a physician at least once a month during the first 6 months, then every 2 weeks or oftener as indicated, preferably every week in the last 4 weeks. A properly qualified nurse working in conjunction with a physician may assist in the observation of the patient. At each visit to the physician the patient's general condition must be investigated, blood pressure taken and recorded, urinalysis done, pulse and temperature recorded, and the weight of the patient noted if possible.

External pelvimetry is only suggestive. It alone does not determine whether any disproportion is present. Abdominal examination should be made at each visit and the height of the fundus determined at this examination. Abdominal palpation in the eighth and ninth months will show whether or not there is any obvious disproportion between the head and the pelvis. Malpositions can be determined and may be corrected. Further information as regards descent and fixation can be obtained by rectal examination.

In a primigravida, if the presenting part 2 weeks before the estimated date of delivery is not well in the pelvis, the physician in charge should determine, so far as is possible, whether any disproportion between the pelvis and the baby exists. If a disproportion is diagnosed in any case special care should be taken to avoid vaginal examinations immediately prior to or after the onset of labor. This precaution is wise because of the danger of serious infection should operative procedures later become necessary.

Every patient requires careful individual study. If the prospective labor offers a probable chance of being a difficult one, the patient should be sent to a well-equipped hospital for delivery.

Pregnancy is a physiologic condition, but there is no condition which so quickly may become pathologic. It is therefore necessary to instruct each patient at her first visit to report at once to the physician anything that may affect her well-being, especially the following symptoms:

1. Obstinate constipation.
2. Shortness of breath.
3. Acute illnesses, especially colds, sore throat, and persistent cough.
4. Persistent or recurring headache.
5. Recurring nausea or vomiting.
6. Visual disturbances.
7. Dizziness.
8. Pain in the epigastrium.
9. Edema, especially of face, hands, and ankles.
10. Changes in the urine or in the type of micturition.
11. Severe pain in the lower abdomen.
12. Vaginal bleeding, even the slightest.

In case of vaginal bleeding or low abdominal pain the patient must be instructed to go to bed at once and to send for her physician. When bleeding from the vagina occurs its source must be determined by examination. When hemorrhage appears imminent the patient, if possible, should be removed to a hospital, but if vaginal examination is necessary it must be done under aseptic precautions. Where a hospital is not available,

means must be at hand to control the possible severe bleeding that may arise.

If the patient develops a toxemia in the course of her pregnancy it is only by careful medical supervision and treatment that an eclamptic condition can be prevented. Eclamptic convulsions are in the majority of cases preventable, but only by constant vigilance combined with coöperation between the patient and the physician can the disastrous results which occur throughout the country be diminished.

If there is doubt about the patient's having a normal delivery she should be transferred to a doctor or to a hospital.

Only by careful study of each case is it possible to determine whether the patient should be allowed to stay at home or be sent to a hospital. By this individual study the number of vaginal examinations during labor may be cut to the minimum and the terrible toll of death from sepsis be much lowered.

It is only by the early and repeated examination of the prospective mother that the premature termination of pregnancies, the still-births, and many diseases and deaths of the newborn can be reduced. By the same methods the mothers can be spared much distress and disease, and many lives can be saved which would otherwise be lost from toxemia, accidents of pregnancy and labor, and infection.

The accompanying form is suggested for use by the physician in his own practice as well as at prenatal clinics (see p. 533).

DUTIES OF MEDICAL ADVISORY COMMITTEES TO COUNTY EMERGENCY RELIEF BOARDS

Feb. 24, 1934.

To the President, The Secretary, The Chairman of the Public Re- lations Committee, The Chairman of the Advisory Committee	}	of the Component County Medical Societies
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Gentlemen:

Reactions to suggestions embodied in Federal Relief Pamphlet No. 7 and in Interpretations or Changes by the State Society Advisory Committee in the Rules and Regulations Governing Emergency Medical Relief Service have not been entirely satisfactory to the Emergency Relief Boards in 10 Pennsylvania counties.

The dissatisfaction has been largely due to failure of members of the Advisory Committee, representing the county medical society, to make definite recommendations to reduce the charges for services rendered on MO'S, where the number of visits made by the physician on a given case has been questioned.

When County Society Advisory Committees fail to act upon bills brought to their attention by the County Emergency Relief Board, such bills are in due time rejected for payment by the State Auditor at Harrisburg and are referred to the Emergency Medical Relief Director and the State Society Advisory Committee as evidences of "chiseling."

It has always been a matter of common observation that there will be one physician in a neighborhood who will make many more visits to a patient than the other physicians of the neighborhood would make under exactly the same circumstances. While this practice may be acceptable to the family concerned, it is not con-

PREGNANCY RECORD *

Date	Estimated date of confinement	
Name	Age	
Address	Gravida	Living children

A. Past history

1. Diseases

2. Operations

3. Menstrual history

B. Previous pregnancies and labors

C. Present pregnancy

1. Date of last menstruation and character thereof

2. Nausea and vomiting

Quickening

3. Estimation of date of delivery

* These forms may be obtained from The Medical Society of the State of Pennsylvania, 230 State St., Harrisburg, Pa., at \$6.75 per 1000; and \$18.50 per 5000.

doned when the service is being paid for from Government funds. This, the chief complaint, can and should be materially reduced by resolute action by the County Advisory Committee.

No doubt many criticisms of the necessary number of professional calls in connection with diagnoses of trivial or chronic conditions have had their origin in the fact that lay representatives of county emergency relief boards have very frequently failed to remember that medical order blanks are to be issued *only* for:

- a. Conditions causing acute suffering.
- b. Conditions interfering with earning capacity.
- c. Conditions endangering life.
- d. Conditions threatening a new, permanent, but at the time preventable handicap.

The issuance of Medical Orders should undoubtedly be placed in the hands of a trained, mature person who can say "No" with a smile.

In most of the counties in the State the Advisory Committees are coördinating satisfactorily. We respectfully suggest that the officers of the county medical societies promptly review the situation in their respective counties, with the object in view of replacing *not* the *entire* Advisory Committee but *only* the member or members to whom this highly estimable public service is definitely distasteful.

March 1st is at hand when *prenatal and postnatal care* as originally outlined in the Rules and Regulations will be *requisite*.

Federal Pamphlet No. 7 and Pennsylvania's Rules and Regulations make no reference to registered midwives, but our Committee is concerned at the present time with evidence that an attorney representing a group of midwives is considering the institution of legal proceedings against the State E. R. B. to admit midwives to practice under the present plan of medical care to recipients of unemployment relief.

Statewide evidences of indifference on the part of practicing physicians to the prenatal and postnatal requirements will greatly weaken the position we have taken, which has been that midwives are incompetent to render prenatal care. If insufficient, or if no prenatal care is rendered by physicians, then obviously this argument will fail.

As in all governmental services, many physicians engaging in emergency relief practice are having great trouble in satisfactorily completing the "paper work." The requirements, however, of the Rules and Regulations, and the directions appearing on each blank must be observed. From this angle bills rendered must be satisfactory to the Emergency Relief Board. Bills thus rendered satisfactorily and approved by the County Advisory Committee are being paid from Harrisburg.

It is unfortunate that an infinitesimal percentage of the total number of practicing physicians should, by their irregularities, cast unfavorable reflections upon the profession. However, facts must be faced, and in three Pennsylvania counties physicians have been suspended from the emergency medical relief lists by action of County Advisory Committees.

Criminal prosecution against two physicians is contemplated for intent to defraud the State, in numerous cases, for alleged services, which, upon investigation by the S. E. R. B., were found never to have been rendered.

Trusting that but few changes will be found necessary in the personnel of the County Society Advisory Committees, also that the labors of the County Advisory Committees, and of physicians practicing under the plan, will be such as to build increasing public

confidence in the capacity of the organized medical profession to control all future sickness service distributed by governmental divisions, we are

Very truly yours,

DONALD GUTHRIE, M.D., *President*,
The Medical Society of the State
of Pennsylvania.

GEORGE L. LAVERTY, M.D., *Chairman*,
Advisory Committee to the Pennsylvania
Emergency Relief Board.

County Society Reports

ALLEGHENY

Jan. 16, 1934

The meeting was held at Hotel Schenley, Pittsburgh, Jan. 16, President George W. Grier in the chair.

A scientific exhibit was shown by the Pittsburgh Medical Center in the lobby before and after the meeting.

Harry L. Baer read a paper on "Tularemia," which will appear in a later number of the JOURNAL.

In discussion, Lester Hollander stated that Simpson, of Dayton, considers tularemia consciousness as the most important point in diagnosis. Especially in Pittsburgh this subject is of local interest since the first pathologic work was done by our own Howard H. Permar and Grover C. Weil, showing the disease to belong in the group of infectious granuloma. The tetrad mentioned by Dr. Baer is the contribution of Francis and is without doubt the lead in differential diagnosis. Minehart brings this out excellently well in a case report of the man who became infected from a tire which went flat after the patient ran over a jack rabbit. Lillie and Francis have recently added an important point by demonstrating the presence of focal necrosis in the medulla of bones as a fairly constant occurrence in experimental animals and conclude that such may be true in the human cases. In regard to treatment, Dr. Hollander mentioned Netherton's suggestion of the use of quinine during the febrile period.

Charles G. Eicher said he had 4 cases to report which he saw recently, 3 being in women. (1) Woman, who had been diagnosed as having grippé, with chills, fever, and sweats. There was no coryza, no cough. There was pain in the index finger, with a pin-prick mark. She had cleaned a rabbit several days before, and had pricked her finger with a splinter of bone. The glands were all enlarged. The blood was positive in a dilution of 1:320. The rabbit had been shipped in. (2) A woman with suppurative glands in the axilla, and a history of having dressed a rabbit. The blood was positive. (3) A woman, ill for 2 weeks when first seen. No particular complaints. There was a sore on the finger, a sloughing, punched-out ulcer, and the glands of the axilla were enlarged. She had dressed a rabbit 3 weeks previously. The blood was faintly positive, and definitely positive in 4 weeks. (4) A young butcher felt ill and had a lump in the axilla. There was no mark of any primary lesion, but he had dressed rabbits. The first 2 cases were ill for more than 6 weeks; the last 2 were mild. The rabbits had been shipped.

Cyril F. Lauer asked about the occurrence of oculo-glandular cases. Dr. Baer, in closing, said there had been none of this type.

George J. Wright read a paper on "Pernicious Anemia, with Special Consideration of the Neurologic

Aspects." There are several reasons for this paper: Most of these patients come to the neurologist for disturbances of gait; there is uncertainty in the mind of the profession regarding prognosis of neurologic involvement; and there are certain principles in cases with cord lesions differing from those having blood lesions alone.

Pernicious anemia is a deficiency disease caused by inability to utilize a normal diet. The liver is deficient. Achlorhydria is a constant accompaniment, and he would not diagnose pernicious anemia in its absence. Pernicious anemia is really a syndrome involving the gastrointestinal tract, the blood, and the nervous system.

The cord lesions are not due to anemia alone. There are any number of combinations possible—the gastrointestinal tract alone, or the blood alone, or any combination.

The neurologic picture may be the earliest, and the patient has little or no anemia. Too rigid a dependence should not be placed on the blood picture. Cases differ as to degree; some rapid, some slow; some recent, some old. The incidence of involvement of the nervous system is high, placed at 80 per cent by the Mayo Clinic; and by others as low as 30 per cent. Some figure in between these is probably correct.

The pathology was detailed.

Prognosis depends on the pathologic background; the kind, amount, and location of the damage. In the tabetic types the chance of arrest and improvement is excellent; the spastic cases do poorly. All cases (except a few old ones) can be arrested. Some improvement may be expected in 2 months; good improvement in 6 months; and a maximum in 12 months. The blood, appetite, and neurologic symptoms all improve.

Treatment: Dilute hydrochloric acid, 1 or 2 drams 3 times a day, with rest, fresh air, sunshine, viosterol, and liver. A physician should use 1 or 2 preparations and stick to them. Dr. Wright's choice is Armour's liquid extract and Squibb's product. The red cell count should be kept above 5 million, but one should not depend on the cell count for treatment. Give twice the 150 grams usually advised. When the maximum of improvement is secured the maintenance diet should be determined and the patient kept on it. It may be necessary in treatment to change the dose or the product if there is no improvement. Most important is to explain the disease to the patient, and give him a real conception of what is wrong.

In discussion, Alfred S. McElroy said that if the means for testing tissues were as convenient as for testing the blood and the gastric juice, no doubt definite changes would be found. It should be borne in mind that in treatment unfractionated preparations may at times be more desirable than fractionated ones. Albert J. Bruecken showed a number of lantern slides of sections of the cord to illustrate his discussion. He said that the stroma of the red blood cells is lipid; myelin is also lipid; and lipoids showed the most pronounced lesions. He thinks that heredity is a big factor in pernicious anemia; megaloblasts are found in the fetus and also in pernicious anemia. In one not predisposed, it may be that it is impossible to give him pernicious anemia no matter what he is fed. He has never seen pneumonia in pernicious anemia patients. Dr. Wright, in closing, said that in early cases with disability there is ataxia and numbness, and in these one can expect definite improvement. If there is degeneration, there is no regeneration. Part of the improvement in the early cases is due to involvement of the peripheral nerves, which will improve. There is a mental picture, espe-

cially in the terminal stages. There is also one occurring in the brain itself through demyelination. They are absolutely incurable.

The paper by Edwin P. Buchanan was on "Carcinoma of the Breast." There is only one treatment, surgery. When there is involvement beyond the possibility of surgical removal, there is no benefit to be derived from roentgen ray or radium. In discussion, Evan W. Meredith said in 2¼ centuries we have traveled very little. The attack by surgical technic is made earlier and on a broader front. Twenty-five per cent cure in a 5-year period is the maximum at present. Analysis shows that the fundamental basis of treatment by roentgen ray and surgery is identical, the destruction of tissue. The questions to be answered in these cases are: (1) What is the nature of the tumor, and (2) what are you going to do about it? Twenty-five to 50 per cent in whom the diagnosis is uncertain are all examined under anesthesia, and a specimen removed. In 95 per cent of those so exposed the competent surgeon determines the diagnosis by the naked eye. With the permission for any necessary operative procedure secured beforehand, excision can be at once begun. Biopsy under any other method is reprehensible. Radiation has not in any way changed the 5-year cure. Radiation cannot reach places inaccessible to the surgeon. Samuel R. Haythorn said that the classification of these tumors is based on the type of cell. The piece to be examined is the largest nodule of the breast. If there is any cellular tumor the cells have spread more rapidly, and here the roentgen ray is of much help. Dr. Bruecken asked why a tap is so reprehensible. Dr. Haythorn in answer cited a case in which a nodule was excised from the breast of a woman age 33, examined for a week, at which time the incision had granulated with cancer cells. The breast was removed and the patient died within 6 months of metastases. Dr. Buchanan, in closing, said that there is no occasion of needling or of biopsy; remove the growth.

GEORGE R. HARRIS, *Reporter*.

BEAVER

Dec. 14, 1933

A meeting was held at the Rochester General Hospital, Dec. 14, John D. Stevenson, presiding. The following officers were elected for 1934: President, James L. Whitehill; first vice president, Mashel F. Pettler; second vice president, Thomas W. McCreary; delegate, Fred B. Wilson; editor, Francis H. McCaskey; censors, John D. Stevenson, Albert N. Mellott, Milton L. McCandless; reporter, Louis H. Landay; Public Health Legislation Committee, Andrew B. Cloak, Edward H. Douds; Public Relations Committee, Mashel F. Pettler, George B. Rush, Leslie L. Hunter, Fred B. Wilson, and Harold J. McLaren; Executive Committee, Harry W. Bernhardt, James L. Whitehill, Louis H. Landay, Robert M. Patterson; Medical Advisory Committee, Edward H. Douds, Horace D. Washburn, Louis H. Landay.

The afternoon was devoted to discussing interesting cases. Ruth W. Wilson presented a case of a man, age 34, a bricklayer, which began with an acute lung infection, March 1, 1933. Sputum negative for tubercle bacilli. Roentgen ray showed a massive lesion in right upper lobe. A pneumothorax was done. The weight chart showed up and down swings. Bronchoscopic examination revealed a widespread inflammatory lesion with no evidence of foreign body. Following this he seemed better for 6 weeks. Sedimentation rate improved. Subsequent relapse was again improved by

pneumothorax. At present, patient's temperature rises to 103° F. He expectorates 3 cups of bloody sputum daily. There is not much to be heard on physical examination. Sputum negative for spirochetes. Ninety sputum examinations were negative for tubercle bacilli. No cancer cells in the sputum. Probable diagnosis non-opaque foreign body. Harry W. Bernhardt discussed the advisability of surgical drainage of the lung in this patient.

James S. Louthan discussed the treatment of the nervous patient. One must not overlook the nervous factor in disease. The patient should always be given a thorough examination. In spite of negative physical signs, the physician should not discharge the nervous patient, telling him that he is all right. The patient thinking he is ill, the physician must prescribe to settle the mental attitude. Otherwise such patients will go to a quack, and the physician has done himself and his profession an injustice. The case of a female was cited whose symptomatology was on a neurotic basis and who was cured by the administration of valerianate pills which in this case proved to be as good a placebo as any.

Harry W. Bernhardt gave a recent experience he had with postoperative massive collapse of the lung. This is very frequently overlooked and is usually due to a bronchus plugged by a foreign body or hemorrhage. The negative pressure produces the symptoms. There is an absorption of air from the lung distal to the plugged bronchus. A vacuum is created. The heart and mediastinum tend to plug up the vacuum by moving towards the affected side. In spontaneous pneumothorax, the opposite situation results. Dr. Bernhardt outlined the case of a young male patient operated on for acute appendicitis under gas-ether anesthesia. On the second postoperative day he developed a cough, dullness at the right base, with diminished breath sounds, and limited expansion. Two days later, he suddenly became cyanotic, complained of severe pain in the right chest, pulse 140. His condition seemed critical. He was given immediately 400 c. c. of air in the right pleural cavity with a startling result; the condition improved immediately and the only discomfort subsequent to pneumothorax was a slight cough for several days. Regardless of the type of plug in the bronchus, changing the negative pressure to a positive pressure helps to expel the plug. To distinguish collapse from a postoperative pneumonia, one depends upon the findings in the former; the displacement of the heart, trachea, and mediastinum towards the affected side.

Leslie L. Hunter presented a case of tularemia, treated by Foshay's serum intravenously with markedly beneficial results. Louis H. Landay presented a case of tularemia in which the primary lesion was a small ulceration above the right knee.

Jan. 11, 1934

The meeting was held Jan. 11, President James L. Whitehill presiding. The secretary reported an average attendance at the meetings for the year 1933 of over 50 per cent of the members. President Whitehill appointed a committee to trace the history of the Beaver County Medical Society from the days of its early formation up to date. This committee consists of Andrew B. Cloak, Robert M. Patterson, Bert C. Painter, and Francis H. McCaskey.

Ruth Wilson, medical director of the Beaver County Tuberculosis Sanatorium, presented a review of 10 years' work in tuberculosis at the sanatorium; 1053 patients were admitted, 284 of whom died. According to the admission diagnosis, of the 184 patients admitted with

minimal tuberculosis, only 3 died, 263 were admitted with the diagnosis of moderately advanced tuberculosis, of these 26 died; 418 were admitted with far advanced tuberculosis with 235 deaths, a mortality rate in the latter group approximately 60 per cent. These figures certainly show the need for treatment of tuberculosis in the minimal stage, in which the chances of complete recovery are splendid. In the study of the follow-up of these patients of 164 minimal cases traced, only 8 are dead; of 167 moderately advanced cases 47 died; and of 150 far advanced cases 78 are dead and 48 are still under treatment. Again these figures show vividly the advisability of diagnosing tuberculosis early and treating it properly. In 273 patients or approximately $\frac{1}{4}$ of the total admission at present have their tuberculosis in an arrested stage. Here also the greatest number of satisfactory results are obtained in the early cases. Pneumothorax, oleothorax, phrenicectomy, and thoracoplasty have their useful applications. Among non-tuberculous complications, there were diabetes, 5; heart disease, 30; hyperthyroidism, 7; syphilis, 36; empyema, 21; bronchial asthma, 14; badly diseased tonsils, 14. Patients with tuberculous complications: laryngitis, 66, of whom 48 died, showing that tuberculous laryngitis is a serious complication; tuberculous enteritis, 57, with 33 deaths; tuberculous peritonitis, 12, with 4 deaths; tuberculous meningitis, most serious of all complications, 20, with 19 deaths; pleurisy with effusion, 40, with 8 deaths. Of 31 patients who developed a spontaneous pneumothorax, 25 died.

Statistics were presented to show that the physicians of Beaver County have in the past few years become keenly aware of the tuberculosis problem with the resultant greater admission of minimal cases. The importance of thorough physical examination was stressed, and the need to have the patient cough at the end of expiration which often will bring out latent moisture. A plea was made for the use of roentgenograms and sputum examination as diagnostic aids, the follow-up of contacts and Mantoux testing of children. Every patient in the sanatorium and the clinic has a Schilling and sedimentation test done as both of these are valuable indices of the patient's progress; a shift to the left in the Schilling test will often precede a serious complication and the sedimentation time is parallel to the patient's improvement.

As an example of the treatment of a nontuberculous complication, there was presented a female, age 40, who had severe diabetes, with a blood sugar of 300 mg. per 100 c. c. of blood while in the sanatorium for moderately advanced tuberculosis following childbirth. She was treated intelligently for both conditions, with an excellent result. Right sided pneumothorax was given for the tuberculosis, at the same time 120 units of insulin daily were given with a 1750 calorie diet. Insulin had to be increased while increasing the collapse, later it was decreased to 50 units daily. At present the patient is at home, doing her housework, no cough, no fatigue, normal blood sugar, negative urine, and still coming to the sanatorium at intervals for the pneumothorax; is gaining weight, and requires very little insulin to keep her balanced.

Feb. 8, 1934

The meeting was held at the Rochester General Hospital, Feb. 8, President James L. Whitehill presiding.

William H. Mayer, assistant professor of neurology, University of Pittsburgh, gave a talk on "Neurologic Problems of Interest to the General Practitioner." Facial palsy is probably caused by sudden chilling. Diagnosed as such only if the forehead is not involved.

The central type involves the forehead but the pure Bell's palsy does not. If the chorda tympani is involved with a loss of taste then one must look for a deeper involvement of the facial nerve in the middle ear. Treatment consists in using boric acid solution for irrigation of the eye. In certain cases, adhesive strips to the side of the face to elevate it, potassium iodide by mouth, and if necessary 5 ma. of positive pole of galvanic current to the face.

Neurologic Complications of Pernicious Anemia: Acro-ataxia, which means involvement of the small muscles, precedes the ataxic gait in these cases. Tingling of the fingers with an inability to pick things up, plus an absence of free hydrochloric acid justifies the diagnosis of pernicious anemia even before the positive blood findings. Pellagra, diabetes, and pernicious anemia can be classified as deficiency diseases with practically the same neurotoxic phenomena. A case was cited of a young nurse in whom the outstanding symptomatology was a paraplegia with not a single abnormal blood cell but she had the typical smooth red tongue and a diagnosis of pernicious anemia was justifiable. For the improvement of nerve phenomena in pernicious anemia, ventriculin acts better than liver extracts.

In the case of cerebral accidents, one should be guarded in giving a prognosis, as at times a transient vascular spasm for a few seconds will produce the symptoms of a severe cerebral accident. A serious prognosis in these cases certainly is not justified as they usually clear up completely in several days. Cerebral embolism is not nearly as common as it is diagnosed. A great number of sudden deaths ascribed to cerebral embolism are probably heart deaths. One should be careful in diagnosing a cerebral hemorrhage in the absence of the preliminary period of unconsciousness. The speaker is very much opposed to promiscuous spinal punctures in cases of cerebral accidents because of the danger of herniation of the medulla oblongata. Spinal punctures can and should be cut down to a minimum in neurologic diagnosis.

Brachial neuritis is a very rare condition. Most of the cases diagnosed as such are really subdeltoid or subacromial bursitis. In neuritis the reflexes are never exaggerated although theoretically they should be. The address concluded with a discussion of anterior poliomyelitis, and the popularity at present concerning Warm Springs, Ga., the beneficial effects of which undoubtedly are due primarily to the even warm temperature of the water which acts as a buoy and enables the child to try to exercise the affected limbs. Immunizing sera are of no value in anterior poliomyelitis.

After the meeting, a dinner was given for Dr. Mayer at the Penn-Beaver Hotel with 55 members present.

LOUIS H. LANDAY, *Reporter*.

CHESTER

Jan. 16, 1934

The regular meeting was held at the General Warren Inn, Malvern, on Jan. 16. The society was the guest of Clarence S. Kurtz, of Malvern, who has graciously entertained the society annually for the past several years. There was no scientific program at this meeting, as 2 meetings each year are devoted exclusively to the business of the society; the first one of these meetings always occurs in January. Henry Pleasants, Jr., referred to a communication which was sent to the Chester County Court requesting the appointment of a committee to investigate the handling of food for patients

on relief. The Court informed Dr. Pleasants that such matters did not properly come before them for action. It was decided that a committee be appointed to confer with the Chester County Medical Society to work out a program for the betterment of conditions. The secretary reported that President Cameron, of State Teachers' College, West Chester, had made no reply to the letter which was written him one month ago concerning the activities of Dr. Farrell in addressing the students in the matter of tuberculosis seals. It was decided that a committee should be appointed to visit President Cameron and obtain an explanation for his actions in this matter. District Councilor Buyers spoke on the question of contract practice and stated that it was being carried to a conclusion as rapidly as possible. Howard B. Davis was installed as president.

Dinner was served to an unusually large number of members.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DAUPHIN

Feb. 6, 1934

The meeting was held 8:45 p. m., in the Academy of Medicine Building, President E. Kirby Lawson in the chair.

The following were elected to membership: Benjamin J. Halporn, formerly of Fayette County, Oscar Paul Holmer, and Bryce Atwood Newbaker, formerly of Philadelphia County.

It was unanimously agreed that the woman's auxiliary should continue to serve refreshments at the end of the monthly meeting for the usual sum of \$30 per meeting.

A symposium on syphilis was presented. Silvia J. Roberts reported cases treated very successfully with intravenous merthiolate. Max Levin cautioned that neurotic patients may be in the early stages of paresis and advised that more systematic and detailed neurologic examinations would improve the early diagnosis of neurosyphilis. George R. Moffitt traced the laboratory diagnosis of syphilis from its earliest inception to the present time.

The Medical Economics Committee presented the following recommendations which were unanimously adopted.

1. Any agreement between a hospital board or its representatives and any individual, group, corporation, or insurance carrier for the purpose of rendering service shall not be at a rate less than the amount charged an individual pay patient for like service.

2. Standard rates for like service in the Polyclinic and Harrisburg Hospitals should be set by mutual agreement.

3. Neither the hospital board nor its representatives should enter into any agreement with any individual, group, corporation, or insurance carrier which will regulate the fees of any staff member, group of members or the staff as a whole.

4. In consideration of the free services rendered by the staff, the hospital should agree that the type of patients treated as free cases should be proved to be incapable of financing his or her situation within the meaning of charity. This should be accomplished by means of an agency participated in by both hospitals. A standing exception to this rule would be the acceptance of any emergency condition or care for first aid.

5. Treatment of compensation cases in the dispensary should be limited to first aid or emergency care after

which the patient should be directed to return to the employer to be referred to a private physician.

6. All other dispensary patients after the first treatment should be required to consult a private physician who if he wishes may return the patient to the hospital with a card stating that the patient requires special treatment best afforded by the hospital or that he or she is indigent and worthy of free service. As an alternative the patient should be permitted to apply to the agency recommended in section number 4 which in any event should be consulted to determine his ability to pay.

The board of governors recommended that after each meeting the reporter should give the daily papers the names of the speakers and the number of members present and any other items of public interest.

SAMUEL B. FLUKE, *Reporter*.

DELAWARE

Nov. 9, 1933

The monthly meeting of the society was held at Chester Hospital, Nov. 9, at 8:30 p. m., President Harry C. Donahoo, in the chair. Three new members were elected. George H. Cross discussed the question of emergency child health and reported that examinations were being made in Clifton Heights, under the direction of Arthur M. Largey.

Charles Habliston, associate professor of medicine, University of Maryland, gave an address on "Atelectasis in Respiratory Diseases," illustrated with lantern slides. Dr. Habliston said in part: Atelectasis occurs more frequently than is recognized, and is often thought to be pneumonia. The cause of atelectasis is bronchial obstruction. The bronchus must be completely occluded and the air distal to the obstruction absorbed before atelectasis is produced. The bronchial obstruction may be due to something within the bronchus as a plug of thick mucus, as seen in postoperative atelectasis, or a foreign body that has been inhaled. Atelectasis may also occur from obstruction caused by pressure on the bronchus by other structures, as in mediastinal tumors, aneurysm, etc.

The symptoms are fairly uniform. There is usually an acute onset of dyspnea and cyanosis which are out of proportion to the cause. There is a retraction of the chest with very little respiratory movement on the affected side. The heart and mediastinal structures are displaced toward the affected side. There is dullness present over the atelectatic lung, breath sounds are absent in about half the cases and are heard in the others. Infection takes place in the atelectatic lung, unless the obstruction in the bronchus is removed, and may result in lung abscess.

The treatment of this condition is directed toward the removal of the bronchial obstruction. In foreign body cases this is done by means of the bronchoscope. If atelectasis occurs during an acute infection or as a postoperative complication, rolling the patient on the affected side, hyperventilation of the lungs by the administration of carbon dioxide and, finally, if other methods fail, bronchoscopic drainage.

Dec. 14

The monthly meeting was held at the Chester Hospital, Dec. 14, at 8:30 p. m., President Harry C. Donahoo in the chair. The Emergency Relief Committee reported that arrangements had been made with the local

welfare board as to the handling of welfare cases by physicians in this county. The *Rules and Regulations*, as compiled by the Emergency Relief Committee of the State Society, were read to the members. The Committee on emergency child health reported that about 600 school children have been examined in the Clifton Heights district. Subsequent to the business session, W. Estell Lee, professor of surgery, Graduate School of the University of Pennsylvania, discussed "Post-operative Pneumonia."

Dr. Lee said in part: In former years pulmonary complications following surgery were spoken of as post-anesthetic pneumonia. These pulmonary complications are now believed to be due to many other factors than anesthesia. These complications were diagnosed as pneumonia and were believed to be due to the inspiration of organisms into the lung during the anesthetic. These complications have been proved to be atelectasis rather than pneumonia.

Postoperative atelectasis is an obstructive atelectasis, caused by a plug of thick tenacious mucus in the bronchus. This condition is seen following abdominal operations, penetrating wounds of the abdomen, and severe crushing injuries. The limitation of respiratory movements because of abdominal dressings is believed to be a factor in the production of atelectasis. Atelectasis probably occurs in some degree in all patients following general anesthesia of sufficient duration for the performance of a major surgical operation. Massive collapse of the lung is now rarely seen, because of the use of hyperventilation by means of carbon-dioxide inhalations before the patient leaves the operating table.

The physical signs are: Diminished respiratory movements on the affected side, intercostal displaced toward the affected side, the dome of the diaphragm is high and immobile on the affected side, dullness over collapsed lung, tympanitic over remaining part of affected side of chest.

The diagnosis may be corroborated by the roentgen ray. Bronchoscopic drainage is an important method of treatment. Collapsed portion of the lung shows almost normal expansion in a few hours following bronchoscopy. Prophylactic measures are more important than treatment. Hyperventilation of lungs in operating room by inhalation of carbon dioxide and oxygen can be used. Patient should also have inhalations of carbon dioxide every 2 hours for the first 24 hours following operation. Postoperative atelectasis is rarely seen in any marked degree if these prophylactic measures are carried out.

Dr. Lee illustrated his talk with 2 reels of motion pictures.

Jan. 11, 1934

The annual meeting with election of officers of the society was held at the Chester Club, Chester, Jan. 11. The meeting was called to order by President Harry C. Donahoo. Ezra A. Whitney, of Elwyn, was elected president; vice presidents, John S. Eynon, Chester, and John J. Sweeney, Highland Park; secretary and treasurer, Albin R. Rozploch, Chester; editor, C. Irvin Stiteler, Chester; reporter, Francis G. Miller, Chester; librarian, Ferdinand W. Nyemetz, Chester; censors, Katharine Ulrich, Chester; Walter E. Egbert, Chester; and Ralph E. Bell, Media.

Following the business meeting, Dr. Max Maurice Strumia, pathologist at Bryn Mawr Hospital, showed several reels of motion pictures taken by him while mountain climbing in the Alps and the Canadian Rocky Mountains. Dinner was served.

FRANCIS G. MILLER, *Reporter*.

DELAWARE (EASTERN BRANCH)

Jan. 23, 1934

The meeting was held at Numan-Slook Legion Post, Oakmont. Frank C. Benson, Jr., Philadelphia, read a paper on "Conclusions Based Upon Fifteen Years' Work in the Radium Department of Hahnemann Hospital, Philadelphia." The paper was devoted to the clinical aspect of the subject, based entirely upon personal experience. Radium is one of the most valuable therapeutic agents if used correctly and within the limitations of its efficiency. Radium is not indicated in conditions of infective origin or inflammatory course, thereby excluding many pathologies in which it has been advocated. In any ordinary dose its germicidal dose is *nil*, and in inflammatory states its use may be positively harmful, if not dangerous. It should not be advocated when the hemoglobin is below 40 per cent, as in primary or secondary anemias its use may be attended with gross tissue destruction.

The following diseases were considered. *Angioma nectus*: Satisfactory in capillary variety and limited extent; its use is questionable in larger angiomata. *Buchanan's disease*: It is possibly the only known method of therapy which offers any hope of relief or occasional cure. *Diseases of the spleen*: Not indicated in splenomegaly or lymphatic leukemia. *Keloid*: Results unsatisfactory. Its use is valueless to prevent recurrence. *Prostatic hypertrophy*: Not satisfactory in fibroma. Not indicated in intravesicular enlargement. Its use in adenoma is prophylactic. *Hypertrophied endometrium*: Indicated after curettage to prevent recurrence. *Myopathic hemorrhage*: Most efficient in evenly distributed tumors of uterus.

Contraindicated in *granulomata* of infective origin.

Leukoplakia: Removal by electrodesiccation is therapy of choice, but radium should be used in all cases as a postoperative procedure. *Vernal catarrh*: Remarkably good results in this disease. *Papilloma*: No value in warts, but is indicated in the degenerating type and postoperative. *Keratosis*: Of value in preventing malignant degeneration. *Parotid*: Satisfactory in benign growths but not in malignancies. *Thyroid*: No value in dysfunction, but indicated after operation for malignancy. *Melanoma*: Primary cases should be left alone. *Epithelioma*: Of skin, action safe, sure and lasting if the lesion is reasonably limited, and bone invasion has not occurred; of eye, beginning growth of conjunctiva of lids can be eradicated; of lips, satisfactory for involvement of vermilion borders; of cheeks, not satisfactory; of tongue, should be used only after electrothermic coagulation; of tonsils, he has had no opportunity to experiment with it as the only therapy; of the larynx, the best result is in the intrinsic cases; of the lung, not used in his clinic; of the esophagus, no bearing on dissemination; of the stomach, mechanical difficulties obviate its use; of the breast, not to be used as the only treatment; of the rectum, of value after proctectomy; of the prostate, offers more than any other treatment; of the external genitals, of vital importance in influencing beginning lymph node invasion. Of the uterus: In cancer of cervix, of greater value than is the operative procedure. Cancer of the fundus, if not too far advanced, should have hysterectomy done.

AUGUSTUS H. CLAGETT, Reporter.

ERIE

Jan. 2, 1934

The meeting was held in the auditorium of Hamot Hospital. Maxwell Lick presented the address of the retiring president, on "The Art of Surgery." Dr. Lick said in part. The alpha of the art lies in diagnosis; he decried the snap diagnostician, and the fact that too much dependence is placed on laboratory and scientific investigation to make a diagnosis. Interns write long, complete histories, but too frequently get an entirely erroneous story. One must learn to separate the unimportant signs and symptoms from those that are permanent and paramount. If a diagnosis does not ring true it is usually incorrect. Stress was laid on various abdominal conditions, not properly diagnosed, and subjected to unnecessary operation. Intra-abdominal injuries frequently are puzzling. The art of surgery is so highly and safely developed in most communities that mortality records vary little; but untoward results are a fruitful source for the carping critic. The courage required to meet postoperative complications was stressed, procrastination and indecision means defeat, and there is the melting confidence and the icy blast of criticism. Never hesitate to call in a consultant in times of stress, strain, or doubt. Various phases of postoperative convalescence were detailed. The science of surgery has advanced to a high plane, but has the art kept pace?

Feb. 6

The meeting was held in the auditorium of Hamot Hospital, President Frank B. Krimmel presiding. James D. Stark interpreted the requirements and rulings of the State Emergency Relief Board for the physicians who are in contact with the indigent poor under this set-up. President Krimmel spoke on a C. W. A. project which would provide for examination and immunization, etc., of children under age 5 who are receiving relief benefits. Chase Gray Gage and Mitchel Burdick were admitted to membership.

The guest speaker was John Eiman, Philadelphia, pathologist to the Abington Memorial Hospital, who spoke on the "Pathology of Coronary Disease," illustrated.

The speaker discussed the normal circulation of the heart. In evaluating statistics relating to coronary disease, the most accurate figures are obtained only from those cases which actually came to necropsy—that vital statistics without accompanying necropsies to prove them cannot be taken too seriously.

Dr. Eiman devised a simple method of injecting the cardiac vessels in the necropsy room. He injects mercury at 115 mm. pressure, first into the left and then into the right coronary vessels. This is done by tying cannulae into two principal arteries. When the injection is complete, stereoscopic roentgen-ray plates are taken. If the coronary arteries are narrowed, typical filling defects may be made out. His studies have shown that there are extensive anastomoses between the right and left coronary arteries. Several slides were exhibited showing the transition of the arterial picture from infancy to old age pointing out that the anastomosis between the right and left sides does not become complete until adult life and that in adults this anastomosis between the right and left coronary is by means of relatively large vessels, whereas in childhood it is by means of small capillaries. Atrophic hearts were demonstrated showing much tortuosity of the vessels caused by the shrinkage of muscles.

The point was emphasized and demonstrated that the

coronary vessels are not terminal and that when they are injected the mercury readily escapes into the left ventricle proving that there is a direct communication existing between the coronary vessels and the bronchial arteries.

Coronary arterial disease was classified as follows: I. Sclerosis. II. Occlusion: Arteriosclerosis; arteriosclerosis plus thrombosis (most common); and embolic.

Dr. Eiman emphasized that he has not seen one case of coronary artery disease attributable to syphilis.

Microscopic study of cardiac muscle has shown that the myocardial damage resulting from coronary artery disease is usually a fibrosis of the myocardium. This is not an inflammatory process and, therefore, the term myocarditis is a misnomer. A more apt term should be myosclerosis.

Too many cases of coronary occlusion are undiagnosed and a more careful study of cardiac patients should be made. Right coronary occlusion is less severe than left and rapid occlusion always means sudden death, whereas slow occlusion offers a fair chance for recovery, especially if affecting the right side and provided the patient reduces the tempo of his living.

In discussion, H. H. Bullard, pathologist, St. Vincent's Hospital, said that in the last 14 of his necropsies, 3 cases showed disease of the coronary arteries. Of these 3, one had a positive Wassermann before death. This patient showed not only a coronary disease but some occlusion of the aorta and he suggested that this case might be a true syphilitic coronary disease. E. Armstrong, pathologist, Hamot Hospital, pointed out that coronary artery disease seemed to predominate in the male, occurring in 82 per cent of the cases in various series reported recently. He was unwilling to believe that stress and strain explained the figures. He also quoted Davis who found that 38 per cent of patients so affected exhibited no pain and asked upon what basis this might be explained. Since 80 to 90 per cent of the deaths were preceded by exertion of varying severity, the attending physicians should emphasize the importance to these patients of avoiding undue physical effort so that life might be further prolonged. Thomas P. Tredway said that though it has been recently thought that angina pectoris and coronary sclerosis are similar, they are two distinct clinical entities since the administration of nitrites promptly relieves angina pectoris, whereas, it has no effect in cases of coronary sclerosis. Dr. Tredway asked if the pain in the latter disease might be produced by an ischemia of the muscles as advocated by Sir Thomas Lewis?

Dr. Eiman, in closing the discussion, said that the case cited by Dr. Bullard was interesting but was really one of syphilis of the root of the aorta principally rather than a true coronary sclerosis. He could offer no explanation of the etiologic factor which produced the disease almost exclusively in the male. He, too, believes that Heberden's angina pectoris and coronary disease are two distinct entities. Dr. Eiman urged that more clinical data should be submitted to the pathologist to aid him in reaching his conclusions so that there might be mutual benefit for the physician and the patient of the future.

BENJAMIN GOLDMAN, *Reporter*.

HUNTINGDON

Feb. 8, 1934

The Huntingdon County Medical Society met in the afternoon, Feb. 8, at the J. C. Blair Memorial Hospital, William T. Hunt presiding.

Howard C. Frontz reported on the Councilor Committee meeting held in Huntingdon, Feb. 1, under direction of Augustus S. Kech, District Councilor.

John M. Keichline read a paper on "High Voltage Roentgen-ray Therapy." It is now possible to give exact doses of milliamperage and voltage, so that the amount of the therapy obtained is definite. Radiation of various organs is divided over a period of 18 to 20 days, in order to reach all cells in neoplasms in process of their mitation. Full skin dosage is advocated, and burns heal readily without scarring. Presurgical radiation is advocated in cancer cases, as it tends to enhance surgical results.

William A. Doebele presented a motion picture review of the work done in the tuberculosis clinics of Mt. Union and Huntingdon. The society decided to cooperate in a general survey of tuberculosis susceptibles in the county.

WALTER ORTHNER, *Reporter*.

LACKAWANNA

Jan. 16, 1934

The scientific meeting, held Jan. 16, was addressed by Henry K. Seelaus and Abraham Cantarow, associate in surgery and associate in medicine, respectively, of Jefferson Medical College, Philadelphia. Their topic was "Clinical Application of Hepatic Function Studies." Dr. Cantarow discussed the subject from the point of view of the internist. There are many difficulties encountered in the study of hepatic function: The liver has many functions and certain diseases may involve certain functions more than others; the liver has an enormous functional reserve; experimentally, by repeated operations, the amount of liver substance has been reduced 85 per cent without disturbance of function; the liver has enormous regenerative power. In chronic disease, tests of functional impairment are very difficult. Hepatic function tests are most important in the acutely diseased in which, after widespread injury, the liver does not have time to regenerate.

The high mortality in gallbladder surgery is largely due to a failure to check-up on each patient. Bilirubin elimination is the first check. It is formed from hemoglobin in the bone marrow, spleen, lymph nodes, Kupffer's cells of the liver and other reticulo-endothelial centers. Knowledge of this elimination dates from 1913 when van den Bergh first noted the diazo reaction given with bilirubin in solution with alcohol. The icterus index is a nonspecific method of determining color intensity which may be interfered with by slight hemolysis or lipochromes (carotin). The most satisfactory test is the quantitative van den Bergh. The upper limit of normal is 1 mg. of serum bilirubin per 1 c. c. of blood. Pigmentation of the skin does not occur until there is a concentration of 1.6 to 2.0 mg. There is a period of "latent jaundice" between 0.6 and 1.6 mg. In hemolytic jaundice, the serum bilirubin is rarely over 10 mg. per cent. A value of over 15 mg. per cent is evidence of an intrahepatic lesion. Serum bilirubin is rarely above 15 mg. per cent with a stone in the common duct.

The liver will eliminate certain dye substances as does the kidney in the phenolsulphonephthalein test. Bromsulphalein is injected intravenously, generally 2 to 3 c. e., according to body weight. At the end of 30 minutes a blood sample is taken, which in a normal patient should show none of the dye present. Adding alkali brings out the color in the serum, which is compared to color standards. If 10 per cent of the dye still remains in circulation, it is taken to signify a 10

per cent impairment of liver function. As some cases have shown 100 per cent retention, it is evident that such a determination may be fallacious. In a patient with complete obstruction, little information can be obtained. In the jaundice caused by incomplete obstruction, there may be much more dye than serum bilirubin retention. Some cases have shown 100 per cent dye retention with only 5 mg. per cent serum bilirubin.

Storage of glycogen is one of the most important functions of the liver. Maintenance of the blood sugar level is determined by the amount of stored hepatic glycogen. Removal of the liver results in a blood sugar of zero and death, regardless of the amount of muscle glycogen. The glycogenic function is one of the last affected by liver disease or injury. A low fasting blood sugar or blood cholesterol in biliary or hepatic disease means a serious prognosis and an advanced disease.

There have been 396 cases of noncalculous cholecystitis reviewed in the literature. Jaundice should not occur and is generally due to some complication such as an actual hepatitis. There is an increase in serum bilirubin in 16 per cent (with calculi, 32 per cent show increase) and 83 per cent show enlargement of the liver. By the bromsulphalein test, 10 per cent showed retention.

Jaundice is much more common in cholelithiasis with cholecystitis. In such a condition, the tests are of particular help to the surgeon. Operation should be avoided: If the serum bilirubin is above normal, regardless of whether jaundice is present or not; if there is any dye retention; if there is increased urobilin; and if the fasting blood sugar is low. Preoperative care is of great importance until there is evidence of increase in liver function.

Henry K. Seelaus, Philadelphia, discussed the surgical aspects of hepatic function tests with particular reference to the preoperative preparation of the patient. Under the correct dietary régime, the liver has enormous regenerative powers. The liver is able to function in an atmosphere almost devoid of oxygen if there is sufficient glycogen which aids detoxification and retards autolysis of the liver substance. High protein diets are apparently harmful because of guanidine retention. All gallbladder patients should be placed on a high carbohydrate diet. Carbohydrate is given to the patients in the form of mashed potatoes, rice, corn starch, bread, cereals, orange juice fortified by lactose and glucose. There is more benefit obtained from the oral administration of carbohydrate than in any other way. Parenteral carbohydrate is of some help in emergencies. The requirement is at least 2000 calories daily.

Patients showing 100 per cent dye retention are first placed on diet. Then a simple drainage is done to relieve the back pressure. It is particularly necessary to decompress the liver in cases of obstructive jaundice. Intravenous glucose should be given in normal saline, 5 per cent concentration, by continuous drip up to 4000 c. c. daily. Minot has shown the remarkable protective powers of calcium. Calcium gluconate is given by mouth or 5 c. c. of 10 per cent calcium chloride given daily for 3 to 4 days before operation. At times, the calcium is supported by parathormone therapy. Coal tar products are frequently used in obstructive jaundice, but bile salts are much better. If there is no free flow of bile after relief of the obstruction, never push medication. Therapy should include an adequate fluid intake and this does not necessarily mean alkaline solutions. Duodenal drainage has not proved to be efficacious. Almost as good results are obtained by giving magnesium sulphate by mouth in 20 per cent solution. It

is obvious that all foci of infection should be cleaned up before operation and high colonic irrigations should be employed at least once. In advanced cases, small blood transfusions are of definite value.

Jan. 23

At the scientific meeting, Jan. 23, Isidor S. Raydin, Philadelphia, professor of experimental surgery of the University of Pennsylvania, discussed the "Use and Abuse of Fluids." The fluid balance of the body is of interest to every clinician. Surgical technic has been standardized, but the mortality and morbidity can be reduced by more careful pre- and postoperative care. The entire reaction of the patient is governed by his fluid and salt requirements. All cell activity is vitally affected by the type of fluid bathing the cells. If the output is greater than the intake, concentration is inevitable. As the concentration increases, the temperature and the blood pressure rise. If this continues, the blood pressure falls, but the temperature increases to high fever. Dehydration may be relieved through one of 4 routes: Oral, rectal or colonic, intravenous, and subcutaneous. The oral route is ideal except if pathologic conditions or surgical procedures preclude its use. The nasal tube may provide the necessary intake. The latter method is so simple that it is almost entirely overlooked. It is of marked value in diabetes and in frequent vomiting.

Rectal administration is useful if tap water or saline is to be given in large amounts. Substances in solution retard the absorption of fluid in the large bowel. After numerous experiments, it has been shown that glucose given by rectum shows very slight absorption, never enough to maintain the basal metabolic needs. There have never been any scientific data published to prove that nutrient enemata, so-called, are of any value.

Subcutaneous administration has many disadvantages: It is painful; glucose may cause sloughing; the patient cannot be moved if constant drip is being used; and, the patient cannot relax.

The intravenous method is rapidly gaining popularity because: The fluid enters the blood stream directly; large amounts of fluid may be given with ease; and glucose as given by vein is of immense nutrient value. Disadvantages of the method have been chiefly confined to the frequent reactions. Individual tissues are rapidly stirred to activity by intravenous therapy, which, however, should be employed in conditions in which its value has been established. Some of these are: The dehydration of infants and children, pernicious vomiting of pregnancy, high intestinal obstruction, and certain of the nephritides.

Saline may be given subcutaneously, intraperitoneally, and intravenously. Generally with impaired function, saline intravenously is dangerous. In mercuric chloride poisoning, however, intravenous saline with 3 or 4 liters of fluid by mouth gives good results. It is definitely of value in high obstruction and in extensive superficial burns. In both these conditions there is marked salt and fluid loss. For the past 10 years, jaundiced patients have been prepared for operation by giving large amounts of intravenous glucose. It should be given slowly and in dilute solutions because of the damaged liver which is unable to handle large amounts of carbohydrate.

In ketosis, the first reaction is to give bicarbonate solutions, but bicarbonate is almost never indicated. True acidosis is very rare except in diabetes. Ketosis is not true acidosis. Alkalosis more often confronts the surgeon. Administration of saline is the treatment in-

licated. Given a normally functioning kidney, saline will correct acidosis as well as alkalosis. The kidney will selectively excrete base or acid according to the body needs.

In intravenous work, the water should be carefully distilled. We cannot blame the reactions on rubber tubing or lack of buffers. It has been shown that the end products of river bacteria which pass over in the distillate can give reactions similar to those of typhoid vaccine injections. Stills with baffle plates and central concentrators remove these end products and now reactions have almost become a thing of the past. Erlenmeyer flasks and rubber tubing should be prepared with this specially distilled water.

The ideal method for intravenous administration of glucose and saline is by the slow, constant, intravenous drip. Reactions are much less common with this method, even if imperfectly distilled water is used. The sudden introduction of large amounts of fluid by vein may result in a drop in blood pressure and possible collapse.

The most rapid way of restoring the serum proteins and fluid balance is by means of blood transfusion. The primary factor in shock is peripheral vasoconstriction which is quickly remedied by transfusion. Much of the argument between the proponents of the direct whole blood transfusion and those of the simpler indirect method is due to those who have invented apparatus for the introduction of unmodified blood. There is no greater number of reactions after the citrate method of transfusion, if the saline is properly prepared as above noted. There is not one iota of evidence that there is any greater chemical or physical value in unmodified blood transfusions except perhaps in the severe blood dyscrasias. In most patients, the convenient citrate method is the method of choice with its elimination of mechanical difficulties.

FREDERICK B. DAVIES, *Reporter.*

LUZERNE (HAZLETON BRANCH)

Jan. 24, 1934

The regular meeting was held at the Elks' Home, Jan. 24. Joseph C. Doane, medical director of the Jewish Hospital, Philadelphia, addressed the society on "The Nervous Woman." Men as well as women may be included in the group of cases considered, but the incidence of neurasthenia is so much higher in the latter that the title as given seems justified. The autonomic nervous system is the automatic regulator of life's most vital processes. The causes for dysfunction of processes regulated by this system, however, are not discoverable at the postmortem table. The regulating neurons which send preganglionic fibers to the heart, blood vessels, respiratory tract, stomach, intestines, and secretory glands are in a very definite way the means by which health and disease and even life and death are determined. The rate and regularity of heart beat, the size of the pupil, and prominence of the eyeball, the secretion of gastric juices, the inhalation and exhalation of gases, the tonus of blood vessels, and as a result the equalization of blood supply, the act of procreation, and hence the existence of the race, depend on a fine balance of the automatic influences of the system of nerves. But a maintenance of one degree of tonus is not compatible with normal bodily functioning. There *must*, in order that life may continue, be a frequent overthrow of this fine balance between those influences which constrict and those which relax, those which accelerate and those which retard.

Owing to abnormal response to the irritations of living, and because of the uncertain and often impure gifts of forefathers to the present generation, unbalance which has been termed idiopathic, may result. In an effort to classify such abnormal states, the terms "sympatheticotonic" and "vagotonic" have been originated. There are no pure examples of either such class, but the former might be termed "epinephrine-sensitive," with heightened tonus throughout the sympathetic system proper; and the latter "pilocarpine-sensitive," with heightened tonus in the craniosacral system. The "nervous woman" responds as she does, not because she has been given pilocarpine nor atropine, but for a reason not definitely known. Fear, depression, anxiety, disappointment, or other emotions may affect certain brain cells which lie in close proximity to those governing autonomic balance. Thus many emotional causes may result in reference of symptoms to viscera. The vagotonic responds with sweating, salivation, flushed face, cold moist hands, bradycardia, asthma, cardiospasm, hyperacidity, and hypermotility. The sympatheticotonic, on the other hand, will present the syndrome of tremor, hypertension, sensation of cold, atonic colitis, glycosuria, tachycardia, and extrasystoles. Flatulence, abdominal pain, and constipation are often found.

Many cases of autonomic unbalance may be brought on by accidents, the symptoms developing and persisting without conscious malingering on the part of the patient, but also without organic causes. In neurocirculatory asthenia, as emphasized by DaCosta in Civil War veterans, accelerator fibers of the cervical sympathetics may predominate over vagal fibers, because of some physical or emotional accident or incident. We should not try to slow the heart rate with digitalis or quinidine in such cases, nor should invalidism be brought about or encouraged by the physician. Taking time to explain the situation to the patient, and trying to remove predisposing or causative factors in his life or habits does more good than anything else.

The "abdomen case" is probably next most difficult to handle. Aside from the symptoms of flatulence, pains, inability to eat, and indigestion, these persons believe themselves "toxic" unless they have bowel movements promptly at their regular time. Headaches are most frequent in these persons. Practically all of them who have suffered long enough, have scars on the abdomen, generally in the right lower or upper quadrants, but their operations have failed to relieve symptoms. Unstable sources of nervous impulses in the head, or along the spinal column are at fault. We cannot cure these patients with operation, nor with any other measure, but we can reason with them and make a start towards restoration by telling them truthfully just what is wrong. Therapy on the whole is most difficult for nervous women and neurasthenics. Understanding of social habits, and rearranging them to cut down the development of neurosis is of utmost importance. Fear of disease must be conquered by some test that demonstrates dramatically that no such disease is present. Most important is the ability of the physician to play a battle of wits with his patient with a psychologically effective outcome, and yet remain ethical.

Though endocrine disorders are being recognized as causative or aggravating factors in certain types of nervous patients, the number of efficacious endocrine products remain small. The only really valuable ones apparently are parathyroid, cortin, pituitary, and thyroid.

In discussion, Dominic D'Angelo compared Castillini's classification of macrosplanchnic, normal, and microsplanchnic persons with the vagotonic and sympatheticotonics of Dr. Doane. He described one patient who

presented typical symptoms of duodenal ulcer, underwent operations for ulcer, gallbladder disease, and appendicitis, and finally left the hospital with the same symptoms and the same diagnosis of gastric neurosis with which he had entered the receiving ward. Otto C. Reiche asked if we cannot really blame much of the autonomic unbalance of women past 40 on the menopause. In conclusion, Dr. Doane expressed the opinion that the menopause can be considered causative of autonomic unbalance only in those patients presenting flushing, flashes, vertigo, or psychiatric symptoms.

Feb. 14

The meeting was held at the Elks' Home in Hazleton. A paper on "Jaundice" was presented by Daniel F. Daley and Frank M. Pugliese, pathologist and surgeon, respectively, of the Mercy Hospital in Wilkes-Barre. After discussing the formation of bilirubin from the dissolution of hemoglobin, and indicating intermediate products in this transformation (hematin and globin, hematinoidin from hematin which also gives rise to hemosiderin, and finally bilirubin, from iron-free hematinoidin), Dr. Daley then mentioned the oxidation and reduction products of bilirubin: biliverdin and urobilinogen, respectively. The following classification of jaundice was submitted:

1. Hemolytic jaundice, which is divided into 4 groups: Congenital familial acholuric jaundice; acquired hemolytic jaundice; pernicious anemia; and Banti's disease. This group has normal stools, urine showing urobilin but no bile, increased fragility of red cells, no itching, and a positive indirect van den Bergh reaction.

2. Toxic or infectious jaundice, which includes the great group of cases produced by drugs, industrial poisons, and systemic disease as well as catarrhal jaundice, hepatitis, spirochetal infections, jaundice of circulatory origin, that associated with hepatic cirrhosis, and that of acute yellow atrophy. In all these conditions the stools are normal or lighter than normal, the urine shows urobilin and bile, and the van den Bergh is positive direct and biphasic.

3. Obstructive jaundice, under which heading are considered cholelithiasis, tumors, chronic pancreatitis, carcinoma of the head of the pancreas, and inflammatory swelling of mucous membrane of the bile ducts. In this group the stools are clay-colored, the urine shows bile and bile salts, but no urobilin. The van den Bergh is positive immediate direct; there may be itching of the skin, and bradycardia.

After reviewing the differential diagnosis between extrahepatic and intrahepatic obstruction (colicky pain and no liver enlargement in the former; rarely pain, but enlargement and tenderness of the liver in the latter), Dr. Daley concluded by reviewing hemolytic icterus and urging prompt treatment by splenectomy as the most satisfactory method of treatment. He also discussed the length of life possible following complete biliary obstruction, and cited several cases which lived years beyond normal expectancy.

Dr. Pugliese considered jaundice from the surgical standpoint, saying in part: Of the numerous causes of obstructive jaundice, the most common are stones in the common duct, stricture, cholangitis associated with an empyema of the gallbladder, and tumors in the head of the pancreas. From the standpoint of differential diagnosis biliary colic which is followed by jaundice, with or without chills and fever, means an intermittent obstruction of bile from the liver to the duodenum. If the jaundice is painless, the possibility of the lesion being

intrahepatic must be seriously considered. Broadly speaking, the appearance of jaundice without pain in a patient whose stools contain bile, or from whom bile is obtained by the use of the duodenal tube, and if the gallbladder is not palpable, we are almost certain to be dealing with an intrahepatic lesion. If the jaundice is constant, and no bile in the stools and no bile is recovered by duodenal tube, the lesion is probably pancreatic, whether the gallbladder is palpable or not. Obstructive jaundice caused by stones nearly always is preceded by severe biliary colic; at least in 86 per cent of cases. In cholangitis associated with empyema of the gallbladder, there is a persistent mass in the region of the gallbladder, chills and fever, and extreme tenderness on palpation. The jaundice as a rule is intermittent in character at first, and then constant. In carcinoma of the head of the pancreas and stricture of the common duct, the element of pain is determined by the amount of obstruction and the degree of infection that is present. Bearing these facts in mind, we should never deny a patient the benefit of an exploratory operation, since as Moynihan has said, no one is infallible in the diagnosis of obstructive jaundice.

Preoperative preparation of the patient requires several days observation to determine the progress of the jaundice; whether it is constant, progressing, or receding. Glucose and calcium chloride are given intravenously for 3 days before operation. Renal function and coagulation time are studied and brought towards normal as much as possible. In cases in which the coagulation time cannot be lowered below 10 minutes, a blood transfusion should be restored to in an effort to improve the clotting time.

In considering operative procedures, the presence of jaundice together with chills and fever should lead to opening of the common duct, and a thorough exploration with probe, scoops, and the gloved finger, if size of the duct will permit. If the gallbladder has not been removed at a previous operation, a cholecystostomy is preferred to a cholecystectomy, if the common duct has been drained. Obstructive jaundice caused by a tumor of the head of the pancreas can be relieved by an anastomosis between the gallbladder and the stomach or duodenum.

The condition of the duodenum should be carefully noted at operation to make sure that the obstruction is not due to a perforating ulcer on the posterior wall. One should also carefully look for tumors of the ampulla of Vater because these may also produce a painless jaundice. Infection within the biliary passages with obstruction causes induration of the liver. The sharpness of the margin of the liver is lost, and a rounded contour is present. If the obstruction is not complete and of short duration, the color is usually a light muddy brown. Later, after the obstruction has become more complete and has endured longer, the liver has a Paris green appearance. In either instance the hepatic lobules stand out as punctate spots. The prognosis in cases in which the liver has taken a Paris green hue is always grave.

Postoperative management includes continuance of the studies of the degree of jaundice, coagulability of the blood, and renal function, and efforts to correct these if necessary. As a matter of routine 2000 to 3000 c. c. of a 10 per cent glucose solution in normal salt solution should be given daily for the first 3 days. Patients with obstructive jaundice usually die from 1 of 3 causes: Hemorrhage, renal insufficiency, or hepatic insufficiency. The best way to combat hemorrhage is by repeated small transfusions of citrated blood. Renal insufficiency is

associated with cessation of drainage of bile. From day to day there is increasing evidence of nephritis. During the period of renal insufficiency secondary to the damming back of the bile in the circulation, the jaundice deepens, the coagulation of the blood lengthens and the blood urea gradually climbs back to the level of uremia. Forcing of fluids, hot packs, and other measures aimed at treatment of the nephritis should be instituted at once. In hepatic insufficiency there is abundant drainage of light colored bile. Patients become restless, then drowsy and stuporous, and finally succumb.

JOHN M. DYSON, *Reporter.*

LYCOMING

Jan. 12, 1934

The meeting of the Lycoming County Medical Society was held at 1:50 p.m., Jan 12, George L. Schneider in the chair. A resolution was adopted and the by-laws modified to include interns as associate members of the County Medical Society, but to be free from the payment of dues, not privileged to vote nor to hold office, nor to participate in medical benefits. As they enter practice they are to apply for membership in their respective county societies.

Alexander Randall, Philadelphia, professor of genito-urinary surgery, University of Pennsylvania Graduate School, gave an illustrated lantern slide address on "Obstructive Uropathies." He said in part that this specialty has now come to the position at which the pathologic state is the foundation of treatment. Obstructive uropathies infer that the pathologic lesion, because of its situation, creates interference with the normal emptying of the urinary excretion. The obstructed bladder is decompensated. Four years ago intravenous urography was started and now the entire urinary tract can be visualized. In consideration of this subject one must think of its effects on the whole urinary system.

The various theories of kidney function were reviewed. In the past 15 years A. N. Richards has revolutionized the theory of kidney function. Richards actually catheterizes the glomerulus with a minute glass cannula. Chemical and microchemical studies are made of this urine. He has learned that the glomerular fluid is a protein free filtrate. In other words, glomerular fluid is urine minus protein. This material passing through the tubules becomes concentrated. Hence those constituents needed by the body are reabsorbed and the waste matters pass on. Ninety per cent of the fluid coming through the glomerulus is often reabsorbed in the tubules.

Glomerular activity is enormous. It is estimated that there are approximately 2,000,000 glomeruli in a human body. Two gallons an hour could be eliminated at top capacity. The power of the tubules to concentrate is a safeguard against too rapid excretion, and a great help in times of renal damage. It is the power of glomeruli to work or not work. Glomeruli constantly work and rest, hence the reserve of kidney function. Kidney reserve is estimated at 4 times the human need. Man can get along with one kidney and even with a half of the remaining kidney removed. The kidney is the body's one great eliminatory system. The kidneys are automatically self-regulating and self-functioning in any posture, awake or asleep. The urine finally reaches a reservoir which is under volitional control, i. e., the bladder.

The urinary system is really a tree, limbs of which bifurcate. The system can be compared to a sewage disposal plant which if blocked at any one point everything back to that point is disrupted. Various things

may disrupt ordinary urinary function. In eliminating acute infections, neoplasms, trauma, *etc.*, there are very few things that one would suspect of making trouble. Embryologically there are 3 distinct points. The urethral portion must join up with the prostatic and bladder portions. The ureters must then join the bladder and finally contact the glomeruli. At any of these points of junction constriction may develop. If contact with the glomerulus does not occur, polycystic kidney results. The kidney in its development gradually ascends to its normal location in 4 successive moves, and the anomalies are classified as to form, position, number, and vascularization. Anomalies may cause obstruction and create a soil for infection followed by symptoms, and often creating the need for surgery.

Intravenous urographic studies should be included in every general abdominal study aside from the acute abdomen. A floating kidney is a potentially dysuric kidney. Stone, hydronephrosis or pyelitis are possibilities. The patient may live for years in comparative comfort, with a polycystic kidney, but eventually drifts gradually into uremia. Stone in the upper calix which should have drained perfectly suggests an anomalous renal vessel constricting the upper pole. Constriction at the uretero-pelvic junction with absence of ptosis should suggest constriction of the lower pole of the kidney by an anomalous renal vessel. In cases of hydronephrosis which may be due to ptosis there may be no signs for years if there is no infection. Hydronephrosis, caused by stricture of the uretero-pelvic junction, may require ureteropyeloplasty. A tumor of the upper pole of the kidney may push the kidney down causing a kink of the upper ureter. Stricture of the middle portion of the ureter should suggest damage from appendicitis. Stone and aberrant vessels are not apt to obstruct this portion. The ureter in rare cases may undergo a very tortuous course winding under the vena cava and other structures. A slide was shown of a boy age 11 with an S-shaped stone 6 inches long, in the lower ureter. The term adnexal disease is used in the male as a synonym for seminal vesiculitis. Lower ureteral obstruction could be due to this condition. Ureteral obstruction may be due to carcinoma of the uterus or bladder.

Congenital valves of the posterior urethra may be a cause of urinary obstruction; a catheter may be passed but no urine escapes. Most of these patients die in infancy, but if they live to an older age the valves must be destroyed with a small cautery. Should any anomaly exist, others may coexist. Phimosis in an infant may be a cause for urinary obstruction. Treatment: Remove the obstruction wherever possible. It is insufficient to simply remove a stone from a kidney. One should trace the ureter downward and look for an obstruction, as a stricture, anomalous vessel, *etc.*

In closing, Dr. Randall stated that ordinarily the unobstructed bladder will not harbor infection nor develop stone, and this probably applies to a great extent higher up. One should always think in a case of infection or stone of obstruction somewhere. There is a pyelitis or pyelonephritis caused by hematogenous infection. This should be self-limited in the space of 6 or 8 weeks, or should disappear with the subsidence of its causative focus, such as tonsillitis, sinusitis, *etc.* A child should be studied for the same pathology and with the same methods as an adult.

Dr. R. G. Leland, director, Bureau of Medical Economics, American Medical Association, gave an address on "The Insurance Principle in the Practice of Medicine." A pseudo- or quasi-insurance principle existed in

the United States as early as the 18th century. It was used for those unable to get medical care. Then came pioneering projects as the country pushed westward, and contract medical care for the men thus engaged. From this, workmen's compensation forms came, then it spread to ordinary places.

Not all contract practice is unethical or not legitimate. In some communities medical care must be guaranteed. In some special situations it must be done. In some remote communities contract practice is necessary. Consider each contract separately and on its own merits.

Results of study of the Committee on the Cost of Medical Care: Insurance schemes used in Europe give much enlightenment. Insurance schemes were first used in Germany in 1883; first used in Austria in 1887; and have been in use in Great Britain for the past 20 years. Four insurance principles merit consideration. (1) That aspect tending to the lay hold of the medical profession. (2) Denial of free choice of doctor. (3) Failure of health insurance to reduce morbidity and mortality. (4) Evils attendant on combination of cash and medical benefits. In the United States we are not favorable to any of these 4 principles. Most of the European difficulties along this line have accrued from these principles.

Medical benefits can be given only by the medical profession. Cash benefits should be provided only for relieving poverty. The sociologist, politician, industrialist, usually relieve poverty. These should not dominate the medical profession. Likewise the medical profession should not administer the cash benefits or determine who is indigent. Thus the doctor would be the detective for the insurance society and would decide how much cash benefit is to be given the beneficiary.

These 2 functions should not be confused. In Europe they have controlled the medical profession. The medical profession has been dominated in all countries except Great Britain, France, and Denmark. Even in France, the politicians are seeking to take away control from the doctor. England's plan is perhaps the best. All these things are constantly changing. Insurance laws in Germany include 3000 pages, and these constantly change. Two bulletins per month would be required to keep us up to date. In Germany, Hitler controls everything. He orders them to teach how to be protected against gas warfare, how to rear more children even though unmarried, *etc.*

Health insurance fails worst in its effort to reduce morbidity. The amount of sickness of the insured measured in days absent from work is now 3 times the rate when they started in Germany 50 years ago, and 3 times the rate of those not covered, and 2 times that in England.

Bottle addicts increased. Doctors are pestered for all sorts of trivial things, hence doctors work much harder. Psychoses and neuroses are much increased, and are based upon introspection, caused by mental gymnastics persons go through when they pay for insurance.

In Germany, a man receives 36 marks per week; 260 marks per year is his premium or 17 per cent of his income. At 60 marks per week, he pays 850 marks per year, or 27 per cent of his income. Hence the reason for his wish for services. Laxity in the quality of medical care goes along with this. The incentive is not there. The entire system does not contribute to a reduction in morbidity. Freedom of choice of physician is not given. The success of a profession is governed more by the professional attainments. We believe that freedom of choice should be maintained. Confidence in the doctor will bring a better result. If the patient is directed to go to an insurance doctor the patient has a suspicion there

is a stronger bond between doctor and company than between doctor and patient.

In some places in the United States today there is no doubt about a trend in the insurance direction. In one state, doctors and all have adopted the insurance principle in order to drive out all other contract groups, but these county societies have had to adopt the same measures as the contract groups used, namely, solicitation, coercion, *etc.* Many of these schemes will die out. The worst part of it is that they sell some contracts and later on fold up and blow away, leaving the medical profession to be the goat and take the blame.

What concerns us most is that we must be on guard that the practice of medicine remains in the hands of the medical profession. For centuries we have stood for scientific advancement and the protection of the public health. Now as never before medical organization must be strengthened and maintained. Individuals cannot do it alone. Much study and attention should be given to all these matters. Each county society meeting should give part time to these discussions. The A. M. A., through its Bureau of Medical Economics, stands ready at all times to do its best in this respect.

We want a good form of medical service; to correct abuses, opening new and legitimate field for physicians, such as immunization, periodic health examination; we must prevent laymen wishing to profit from gaining control which for 3000 years we have carried on so admirably.

In discussion, John P. Harley stated that in Lycoming County, of 90,000 population, 33⅓ to 40 per cent have been paying doctors' bills. We had on our rolls 25,000 to 30,000 persons not paying their doctor last year. He asked what to do with those with a small income, \$600 to \$800 per year. Dr. Leland believes these belong to the indigent, and suggests that there be an educational campaign for budgeting for sickness, as we have been too modest in this respect.

In closing, Dr. Leland said that the subsistence level for an ordinary family is from \$1000 to \$1400. He also suggested that taxation should pay for the indigent with a lump sum or a stipulated amount. As to the part-pay class, in some locations salaried men in certain hospitals cover this but usually they are underpaid and the institution profits from it. This opens the way for hospital and clinic abuses. The best plan for this class is for the doctor to use ordinary common sense and charge fees according to the ability to pay.

L. M. HOFFMAN, *Reporter.*

McKEAN

Jan. 16, 1934

The regular monthly meeting was held in Bradford at the Hotel Emery, Jan. 16, at 6:00 p. m. The monthly meetings are always held at the Hotel Emery, and are preceded by dinner.

President Donald Guthrie, of our State Society, gave an address on "Matters of Vital Importance to the Medical Profession." He emphasized the fact that the medical profession today is being consulted by our legislatures on matters effecting the medical profession, which in the past have been left entirely to the whims of politicians. He dismissed the fear which exists in the minds of many members of the medical profession today that the present medical relief is a forerunner of state medicine.

Persis Straight Robbins, Bradford, chairman of the Child Health Program reported that to date 646 children had been examined in McKean County, of whom

207 were found to be suffering from malnutrition. Edward J. Phillips, Bradford, raised the issue as to what constitutes malnutrition, the contention being that the statistical study is entirely too high. A condition which may be considered malnutrition by one physician is not considered so by another. It is very difficult to determine at one hasty examination whether a child may be malnourished.

Eugene McCarthy, Kane, was elected to membership.

HILDING A. NELSON, *Reporter*.

MONTGOMERY

Feb. 7, 1934

The meeting was held at State Hospital, Norristown, President Joseph E. Beideman in the chair. Members, 46, and visitors, 3, were present. A proposition to lower the yearly dues was defeated by a narrow margin. The paper presented by Henry L. Bockus, Philadelphia, was on "Bloody Diarrheas or Alvine Fluxes." These were said to be caused by malignancies, polypi, colitis, bacillary dysentery, and amebic dysentery.

Amebic colitis is endemic, but the cases distributed from Chicago last year through about 150 cities were extra virulent. There were 1000 cases reported, but many more were not reported. It causes granuloma of the colon and solitary abscess of the liver. The diagnosis is usually easy with the sigmoidoscope which shows isolated ulcers, buttonhole and undermined. Under the microscope the warmed stools show slowly moving *endameba histolytica*. The roentgen ray is not distinctive. Treatment: Emetine hydrochloride, gr. 1, by hypodermic every day for 7 to 10 days; or, stovarsol, treparsol, carborsaut, or vioform.

The ameba has been detected in 4 per cent of 1060 freshmen in the University of Pennsylvania, nearly all being "carriers." It is estimated that probably 5 to 10 per cent of the population of the U. S. are "carriers."

Bacillary dysentery of the Flexner bacillus is found in camps during wars. The bacillus is hard to grow. It is hard to distinguish from ulcerative colitis with the sigmoidoscope.

Chronic ulcerative colitis is increasing, mainly among young adults. It has a strong tendency to relapse, and arthritis often follows. It is characterized by chronic bleeding with remissions. The sigmoidoscope shows diffuse proctosigmoiditis. Superficial minute ulcers are covered with mucus. After a while the infiltration gradually causes narrowing and shortening of the bowel. It is almost never cured to stay cured for 5 years. Ileostomy may be performed to drain out the fluid.

WALLACE W. DILL, *Reporter*.

PHILADELPHIA

Jan. 24, 1934

SYMPOSIUM ON DIABETES

Howard W. Schaffer opened the symposium on diabetes with a paper on "Diagnosis and Laboratory Control of Diabetes." He stressed the fact that diabetes is a disease that shows no tendency to spontaneous recovery and that every case needs a certain amount of active treatment or at least supervision to keep it from progressing. The diagnosis and treatment have been reduced to almost mathematical certainty so that if the case is studied thoroughly and the diet adjusted accurately, along with proper dosage of insulin, if necessary, the disease can be held in abeyance for a longer period of

time. The tools of the study and control of this condition are comparatively simple laboratory procedures. The value of repeated urinalysis was outlined. The classical symptomatology was detailed. Sometimes the first indication of the disease may be one of complications, such as pruritus, gangrene, or acidosis. Infection of any kind will tend to bring out a latent diabetes. The necessity of a complete examination of the urine, in the course of a physical examination, was especially emphasized. A more fundamental feature of any examination is the determination of the amount of glucose in the blood. Blood sugar may be rather high and sugar not show in the urine because of high renal threshold. A routine blood sugar examination is, therefore, very important. In cases in which the diagnosis is obscure, the glucose tolerance test is advised, but a known diabetic patient should not be subjected to a sugar tolerance test, as his condition may be needlessly aggravated.

"Standardization of Diabetes with Diet and Insulin," by Joseph T. Beardwood. This was composed of 2 distinct aspects; the first having to do with the reduction of the blood sugar to normal levels, the second, proper education of the diabetic patient in regard to his general health, so that he will properly take care of himself. The diet should be quantitative rather than qualitative. It is no longer necessary to starve a diabetic patient. To control the glycosuria the diabetic diet should be lower than the so-called normal diet. The early stages of diabetes are overweight, but as the disease progresses the patient becomes greatly underweight. Three principal diets are arranged. The low carbohydrate, the high type, and the fat type, all calculated upon caloric requirements. If the patient's ideal weight is 132 lbs.: to express in kilograms, divide by 2.2, the number of pounds in a kilogram: and allow 30 calories per kilogram, which indicates a total caloric allowance of 1800 calories. All diabetic diets are based upon this assumed requirement. It probably makes no difference what type is used so long as the diet is scientifically developed and does not allow too large a proportion of fat to carbohydrates. If the patient has been on a diet for 3 or 4 days, the blood sugar still shows, and glycosuria is manifest; insulin should be used. It can be used only hypodermically. There is at present no satisfactory substitute which can be given by mouth, despite the gratuitous publicity of other forms of administration. Not all diabetics require insulin, probably only 25 to 35 per cent. This paper emphasizes the necessity of carefully studying the diet for each individual patient.

"Prevention and Control of Common Complications of Diabetes," by Reuben Davis. The importance of the complications, especially gangrene was emphasized, which was the cause of 17.5 per cent of the deaths occurring in the Metabolic Ward of the Philadelphia General Hospital, in 1932. The early recognition of diabetes and its adequate control with diet and insulin would eliminate arteriosclerosis and wipe out gangrene entirely. Diabetes is essentially a disease of older life, at a time when metabolic processes take place in the entire cardiovascular system. When such changes are present, in the course of diabetes, the patient is especially susceptible to infections, the treatment of which is far from satisfactory. Acidosis and coma are no longer considered most serious complications. The treatment is highly satisfactory in most of these cases. As a rule these should be hospitalized. All unconscious diabetics are not in diabetic coma, even though the blood sugar is often elevated. Cerebral hemorrhage and thrombosis, fracture of the skull, brain tumor, nephritis with uremia, intoxication caused by drugs and alcohol, and hyper-

glycemia, or insulin shock, occurring in the diabetic patient are all possibilities and should be distinguished from diabetic coma. These conditions present clinical findings that should enable one to arrive at the correct diagnosis. If there is any question of doubt, however, a blood sugar and carbon dioxide combining power will settle the question.

"Diabetes as a Public Health Problem," by Edward S. Dillon. Dr. Dillon showed charts covering the incidence of tuberculosis and diabetes prepared by the Statistical Department of the Metropolitan Life Insurance. It was interesting to note that a woman about age 25, according to these charts, now has the same chance of dying eventually from either diabetes or tuberculosis. From this age point diabetes increases and tuberculosis decreases. The explanation of the greater prevalence of diabetic deaths in the later age group is that there are a greater number of persons now living in this late age group than a matter of 20 years or more ago. Of the total number of admissions in the Metabolic Ward of the Philadelphia General Hospital, 1932 to 1933, there were 160 deaths, 38 of which were from gangrene; the second most frequent cause is acidosis; the third, some form of heart disease. The first 4 causes of death in diabetes may be designated as arteriosclerotic deaths; 51 per cent of the total show arteriosclerosis. Diabetes without complications is likely to extend over a long period before the disease becomes out of control and arteriosclerosis develops. Among the predisposing causes mentioned are race (the Jewish race being especially susceptible to the disease), the female sex, and obesity.

In discussion, Lewis H. Hitzrot stressed the point that 1 in every 100 of our people has diabetes, and that the death rate is rising as well as an increase in the number of new cases. Despite the progress being made in the diagnosis and treatment in the past 10 years, insufficient attention is being given to the infection in its early stages. If the public could be made to feel toward diabetes the same as they feel toward tuberculosis, the problem would be very shortly solved. The course of diabetes is generally not a smooth one. What may be adequate management one week, or one month, may be totally inadequate the next. Some small indisposition or infection completely upsets the equilibrium of the patient. Therefore, the patient should not only be carefully watched, but a check up should be made at very definite intervals. Otherwise they go on without symptoms, or with minor symptoms, with serious cardiovascular complications following. John Davis Paul said the prognosis of operation in diabetic cataract, according to the Mayos, is much better than in the ordinary senile cataract.

WARREN

Jan. 15, 1934

At the annual banquet meeting held at Warren, 33 members were present. The address of the retiring president, R. F. Otterbein, endeavored to show that roentgen-ray diagnosis in gastro-intestinal disturbances must be correlated with clinical history and chemical analysis, that even in the absence of definite roentgen-ray findings the other symptoms may warrant a diagnosis of ulcer, *etc.* He showed films of cases that were supposed to mean malignancy, which on operation were found otherwise. Difficult to determine from roentgen ray alone are: Late stage of pyloric ulcer, induration, and malignancy; and obstructions at esophageal end. Case reports were given illustrating possibilities of error.

Richard B. Stewart was made an honorary member.
MICHAEL V. BALL, *Reporter.*

YORK

Jan. 20, 1934

With President James F. Wood in the chair, Samuel Horton Brown, of Philadelphia, spoke on "Medical Economics."

He said in part: The county societies have gone into competition with lay societies to accept contract medical practices; the physician has been individualistic and has not been communistic enough; other persons have been trained to do all the physician himself should do. The national and state medical organizations are only as strong as the local societies; the physician himself is permanent in society and is, therefore, expected to remain to help all. The medical profession is not united in its purpose; the rural physician has his own problem since there is no hospital, quite a different problem from the city physician. Educational and medical propaganda is best disseminated by the physician's personal charm rather than by reading. Nurse anesthetists should be abolished. Hospitals profit; but under the law the nurse is eligible to give an anesthetic only under the supervision of a licensed physician and that does not mean the surgeon; there are not sufficient physicians who are graduate anesthetists, there being only 6 in Philadelphia.

In discussion, George L. Lavery, of Harrisburg, said that socialization is coming to the front. The compensation board began 17 years ago and appointed a commission to study this situation of social legislation. The compensation law was passed suddenly and then suddenly it changed for the common man; it is not made for the physician; as the worker (man) ages (reaches 55), he is not wanted in shops because he becomes easily disabled, then when a referee is appointed, the compensation becomes an old-age pension. The next step after the old-age pension is that as a person is well, he expects to have sickness insurance. Continental countries have this. The problem is to get in early and mold the insurance law as you desire it. The population is one-third employed, one-third dependent, and one-third unemployed paupers. The European system does not provide for the pauper class.

Two factors must be considered in formulating unemployment medical relief: (a) Collective bargaining; (b) individual selection of physician. We are uncertain of the future of sickness insurance, but we believe the public, the legislators, and the officials are watching for the care of the unemployed. So far there has not been political interference; but it has been in the hands of the medical profession; we are being watched, on probation, to see if we are fair or are "padding" our bills. If sickness insurance ever comes up and we do a good job of this Emergency Medical Relief, we may be able to dictate in the future. James F. Wood, Mt. Wolf, stated that the encroachment of lay persons, nurses, teachers, *etc.*, on the medical profession is an undesirable thing; and he understood that in Montgomery County physicians who are called to court receive \$15 a day; further, all federal CWA patients can now choose their own physician rather than a designated federal appointee. Dr. Brown stated that federal relief is the turning point in the medical practice; that adequate medical care is necessary regardless of how many calls we make; that examinations given the patients should be what they are paying for; that there is much contract practice in force in hospitals of which we have no knowledge.

District Councilor Clarence R. Phillips, Harrisburg, stressed the point that the medical profession is now on trial; that if we are now paid for something for which

we were never paid before, the money will soon be exhausted; that we must treat the indigent as if they were able to pay; that every county has its own interpretation of the poor laws; that some places have a choice of physicians for their paupers and it is hoped that such legislation will go through. E. Kirby Lawson, Harrisburg, asked that the hospital should not handle cases of compensation in competition with the private physician; that the management of the hospital will coöperate with the physician and his plan; that the physician should establish a credit bureau; that the broad immunization of patients regardless of their ability to pay should be stopped. S. Horton Brown stated that the credit bureau in Philadelphia did not work and that the immunization and treatment of large groups of children worked out better on a plan through social service in which a good physician did eye refraction, immunization, etc. Fred Bergdoll, North York, asked whether the Emergency Relief provided for laboratory and roentgen-ray service. Dr. Lavery replied that at present it is so complicated and still in the experimental stage but provisions may be enlarged on later. Joseph C. Atkins, Red Lion, asked concerning satisfactory fees for dressings. James P. Paul, York, asked whether it was fair for a physician to accept a fee of 10 per cent of total compensation of a factory for attending all cases. Dr. Brown, in closing, stated that he thought it was fair.

There were about 60 members present and many friends and many members who have not attended York Medical Society for more than 10 years.

H. MALCOLM READ, *Reporter*.

SECOND COUNCILOR DISTRICT COMMISSION

The first meeting of the Second District Councilor Commission was held at Valley Forge Hotel, Main

Street, Norristown, Jan. 31, with the following program:

"The Purpose of the Councilor Commission," by Edgar S. Buyers, Norristown, trustee and councilor.

"The Function of Public Relations Committees," by George H. Cross, Chester; chairman public relations committee, Delaware County Medical Society.

Discussion opened by U. Grant Gifford, Kennett Square; chairman public relations committee, Chester County Medical Society.

"Proposed Changes in Workmen's Compensation Law," by Moses Behrend, president-elect, The Medical Society of the State of Pennsylvania.

"Problems of a County Society Secretary," by Arthur B. Fleming, Tamaqua; secretary, Schuylkill County Medical Society. (All secretaries were called upon to discuss this paper.)

"Emergency Relief and the Physician," by W. Burrill Odenatt, Philadelphia; member of State Society Advisory Committee.

Discussion opened by Albert Rowland Garner, Norristown; chairman, Advisory Committee to Montgomery County Emergency Relief Board.

FIFTH COUNCILOR DISTRICT COMMISSION

The meeting of the Fifth Councilor District Commission was held in Harrisburg, Jan. 17, with the following program: Opening remarks, by District Councilor C. R. Phillips, Harrisburg; "Medical Care of Paupers," by Edgar S. Buyers, Norristown, chairman, Board of Trustees; "How to Bring in Nonmembers," by Charles P. Stahr, Lancaster; "Postgraduate Work in Smaller Counties," by Moses Behrend, Philadelphia, president-elect, State Society; "Medical Services to Those on Emergency Relief," by Harold A. Miller, director, Emergency Medical Relief of the State Emergency Relief Board.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

PUBLIC HEALTH EDUCATION PERIODIC HEALTH EXAMINATION

In January a letter was sent to every county auxiliary president containing suggestions for health programs and materials available. In addition a request was made for the names of chairmen of Public Health Education and Periodic Health Examination together with a report of work done or planned.

In response the following reports were received:

Allegheny.—At the November meeting a speaker reviewed the past activity and development of the work of the Allegheny Medical Society and a 10-minute talk was given by Mrs. Daniel N. Bulford, chairman of Public Relations Committee, on the new "Maternity

Plan" of the County Medical Society explaining its procedure, effectiveness, and remunerating provisions.

Three talks were given before Parent-Teacher Associations on health subjects.

This auxiliary is coöperating with the Child Health Council, General Health Council, Pittsburgh District Dairy Council, and Allegheny County Council of Parent-Teacher Associations.

Fifty members attended the meeting in observance of Pennsylvania Health Day held by the County Medical Society.

Berks.—The auxiliary held an open meeting, Jan. 8, which was attended by representatives of women's organizations. Addresses were given on timely subjects by two physicians: "The Care of the Skin or Cosmetics," and "The Child and the Doctor."

The auxiliary was responsible for a large audience at the meeting held by the County Medical Society in observance of Public Health Week.

Dauphin.—Public Health Week was observed in Dauphin County during the week of Nov. 13 with an exhibit in one of the large stores. The auxiliary as one of the coöperating agencies had an exhibit, consisting of nightingales made for the hospitals, sun suits for the Tuberculosis Camp together with many other articles, showing the work done by the members for many organizations in the interest of health.

Erie.—A Health Day Program is arranged for each year in conjunction with the Philanthropy Department of the Woman's Club of Erie.

The auxiliary assisted the County Medical Society with publicity for the open meeting in November by contacting all women's organizations.

Montgomery.—Reports one program devoted to "Pure Foods and Drugs," with representatives of the clubs of Norristown as guests.

Papers prepared by the members on "The Fads," have been most interesting.

Montour.—Mrs. Robert Y. Grone, chairman of Public Health Education and Periodic Health Examination, was a speaker on the health program arranged for the citizens by the Medical Society of Montour County.

Warren.—No chairman, but the auxiliary aided the County Medical Society in advertising Health Week, each member being responsible for 5 or more guests; consequently a large audience attended the meeting.

Washington.—The auxiliary helped the County Medical Society in its Public Health Week program by getting the interest of the various county clubs and organizations.

Wyoming.—The auxiliary assisted with the Child Emergency Health Examinations and the doctors giving talks at the Parent-Teacher Associations throughout the county; it gives *Hygeia* to the rural school teachers and also sends it to the Public Library.

Will the county presidents or chairmen who have not replied to my letter kindly do so at an early date.

MILLIE BAIRD (MRS. E. KIRBY) LAWSON,
Chairman.

COUNTY AUXILIARY REPORTS

Allegheny.—More than 100 members attended the January meeting in the Hotel Schenley. Dr. T. S. Arbuthnot, addressed the auxiliary on, "An African Hunting Trip," which was illustrated with motion pictures in natural colors. Mrs. Leone Marquis Woelfel, chairman of music, sang several solos. Tea was served.

Chester.—The auxiliary met at the Monday Afternoon Club of Malvern, on Jan. 16, for its regular meeting.

Dr. Joseph Scattergood, Jr., of West Chester, discussed the aims and value of the Periodic Health Examination, explaining the modern scientific aids in diagnosis so easily available to every one; the comfort, usefulness, and enjoyment of the later years of life may be greatly prolonged; and the high mortality rate from ignorance of an unknown condition might be avoided. Roentgenograms were shown of normal and diseased organs.

Mrs. U. Grant Gifford presided and opened the meeting with a short prayer and some appropriate verse, the

discussions centered about the activities for the ensuing year, relative to educational plans in coöperation with other county organizations.

The placing of *Hygeia* magazine in various schools and libraries was left to the committee.

Dinner was served by the women of the Monday Afternoon Club.

The auxiliary met on Feb. 8, in the Chester Hospital. Mrs. John Farrel, of West Chester explained certain details of the work done by the Medical Benevolence Fund. The auxiliary anticipates a card party in April, to be arranged by Mrs. C. I. Stiteler, and to be held in Ridley Park. This is planned in order that the contribution to the Medical Benevolence Fund may be increased above the \$100 contribution usually given by this auxiliary.

A new member, Mrs. Henry Tracy, was presented.

The guest speaker, Miss Deborah Warrington, of West Chester, probation officer of Chester County, spoke on "The Work of the Juvenile Court." She gave a well-rounded picture of an apprehended delinquent, his case history, his informal talk with the judge, and his subsequent disposition.

Clinton.—Members of the auxiliary were entertained by the Clinton County Medical Society, at its annual banquet, at the New Fallon Hotel, Lock Haven, Jan. 25, 1934.

Following the banquet, the auxiliary elected officers for 1934: President, Mrs. William J. Shoemaker, Lock Haven; vice presidents, first, Mrs. Raymond A. Werts, Renovo; second, Mrs. Edwin L. Royer, Lock Haven; third, Mrs. Saylor J. McGhee, Lock Haven; secretary-treasurer, Mrs. David W. Thomas, Lock Haven.

Dr. Donald Guthrie, of Sayre, president of the State Medical Society, spoke to the auxiliary of the relations between the physician's wife and the Medical Society and the mutual benefits obtained thereby. Mrs. Edward Lyon, president of the State Auxiliary, discussed the aims of the State Auxiliary and explained duties of various chairmen and committees.

Dauphin.—The February program included a piano solo; and an "Illustrated Travel Talk" by the Misses Dorothy and Mary George, showing the pictures of their Mediterranean cruise and travels in Spain. Tea followed the program.

The budget with estimated receipts and expenditures for 1934 is presented in the current number of the "R" as well as the full membership list showing that it now includes some 120 members; and the generous provisions made in the budget for medical benevolence and welfare.

Erie.—Many school children benefited by the bridge tea given by the auxiliary, in the Y. W. C. A., Feb. 5. The purpose was to obtain funds to furnish glasses for children of the city schools who are handicapped by defective vision.

Indiana.—The regular monthly meeting of the Auxiliary was held, at 6 p. m., Jan. 11, at Wachob's Tea Room, Indiana. Dinner was served after which members were entertained with Scandinavian folk songs and dances. The president, Mrs. Frank B. Stevenson, presided.

Activities of the auxiliary for the year just ended include periodic health work, public health and community work as well as contributions to the Brookside Health Camp, State Benevolence Fund, and medical legislation.

An interesting article has been prepared by Mrs. H.

DeV. Hotham, historian, on heroic wives of early physicians in Indiana County, among them being Judith Maria Marchand, born and educated in Switzerland, who with her husband, Dr. David Marchand, arrived in 1754 and practiced medicine in the district.

Beatrice Byerly was widely famed as a nurse and "doctress." She cared for the sick and wounded during the Pontiac War in Fort Ligonier; during the Revolution she was on duty at Fort Walthour.

Mrs. Fergus Moorhead carried her services into the wilderness. Her husband was captured by Indians leaving her with 3 small children. She gave birth to a fourth child and at about the same time the eldest child contracted smallpox and died. The mother dug the grave and buried her child. She and her husband built Fort Moorhead near Indiana.

Lackawanna.—A business meeting and bridge luncheon was held, Jan. 9, at the Century Club. Mrs. Robert R. Schultz, presided. There were 75 present. Mrs. Ernest L. Kiesel was named first vice-president; Mrs. Aaron S. Cantor, corresponding secretary; and Mrs. Raymond J. Garvey, treasurer.

Sixteen new members were admitted to the auxiliary during 1933. Half the quota for the Medical Benevolence Fund for 1934, one hundred dollars, is already in the treasury.

Plans are being made for a fashion show to be held in March.

Lebanon.—The auxiliary met, Feb. 12, at the home of Mrs. William H. Diehl, Palmyra, with a good attendance of members. Mr. and Mrs. J. Clarence Funk, of Harrisburg, were guests. The president, Mrs. E. B. Marshall of Annville, was in charge.

Mr. Funk, chief of Public Health Education, State Department of Health, gave a talk on the "Fundamental Rules of Health," stressing false health education propaganda as well as false food products; urging the group to be more energetic in spreading the gospel of health to their friends.

A committee was appointed to look after a certain needy Lebanon family, supplying it with necessary articles of children's clothing and bed linen; also to get an estimate regarding renovating a room in the house, so as to make it more livable and cheerful.

At Christmas time the auxiliary contributed a number of baskets of groceries to families in need.

Lycoming.—Mrs. Charles W. Youngman was elected president at the annual meeting, Jan. 12, at the Woman's Club, following a luncheon at 1:30 o'clock.

Other officers to serve with Mrs. Youngman are: Vice-presidents, first, Mrs. James H. Burrows; second, Mrs. John A. Campbell; third, Mrs. Frederic G. Sanford; recording secretary, Mrs. Ross K. Childerhose; corresponding secretary, Mrs. Isidore Di Salvo; treasurer, Mrs. P. Harold Decker; and assistant treasurer, Mrs. Archibald M. Cook. The following directors were named: Mesdames W. Eugene Delaney, Jr., Charles A. Lehman, G. Franklin Bell, and J. Louis Mansuy.

Mrs. Delaney, the retiring president, was in charge of the meeting.

During the meeting, the mayor of the City of Williamsport addressed the women in behalf of the President's Birthday Party, held on Jan. 30.

The auxiliary held a very successful dance, Dec. 27, 1933, from which more than \$500 were made. It was decided at this meeting to turn over a substantial sum to the Williamsport Hospital to help to purchase a deep therapy machine. Several health bonds were purchased from the Tuberculosis Society; a membership

was taken out in the American Red Cross; a donation was pledged to the Crippled Children's Fund and the pledge to the Medical Benevolence Fund was ordered paid.

Five new members have been admitted since Jan. 1.

Northampton.—The regular meeting of the auxiliary was held Feb. 14, at the Pomfret Club, Easton, Mrs. Reuben S. Raub, Mrs. Anthony Sparta, and Mrs. Arthur Fox hostesses. Following luncheon, the business meeting was held, the president, Mrs. Fox, in the chair. It was ordered that all outstanding bills should be paid. The resignations of Mrs. Theodore Reichbaum, Easton, and Mrs. R. Y. Blose, Bethlehem, were accepted with regret.

A letter from State President Mrs. Edward Lyon in regard to the need for chairmen for committees on *Hygeia*, Legislation, Public Relations, and Public Health, in each auxiliary was read.

A letter from State Historian Mrs. David B. Ludwig, was read announcing that Mrs. Ludwig will have in her home a permanent exhibit of objects relating to medical history and requesting the coöperation of the county auxiliaries.

Mrs. Tillman, chairman, Ways and Means Committee, announced that plans for the spring card party were open for discussion.

Philadelphia.—At the meeting held on Feb. 13, the members voted to give to the Aid Association of the Philadelphia County Medical Society an additional donation of \$300.00 to supplement the gift of the same amount voted earlier in the season. Because of great need among the families of physicians, the Ways and Means Committee, under the leadership of Mrs. Edward J. Klopp, has held a series of remunerative activities this fiscal year.

At the close of the business session, an address was delivered by William L. Sullivan, D.D. on "A View of the World We Live in." Dr. Sullivan, is keenly interested in the shifting scenes and problems of the nations of this world and of such discriminate thinking that he brought a broader and saner understanding of international affairs than is usual.

Following the address Rae Eleanor Ball delighted the audience with violin solos. Tea followed.

The activity of the Ways and Means Committee for February was a musicale with Leo Ornstein as guest artist, followed by a card party and tea, which was held at the County Medical Building Monday, Feb. 26.

Westmoreland.—The January meeting of the auxiliary was celebrated with a dinner given in the Greensburg Country Club with the husbands of members as guests. There was no business transacted. It was the beginning of the tenth year for the auxiliary which has grown from 26 to 75 members, so all the past presidents were introduced and each gave a short talk.

The regular monthly meeting of the auxiliary was held at 8 p. m., Feb. 8, at the Girl's Club in Greensburg. At the business meeting it was decided to sew for the county hospitals and to plan some way of replenishing our treasury. After the business meeting, cards were played and a luncheon was served with the Periodic Health Examination and Public Health Committees acting as hostesses.

The Greek physician Galen, who lived in the second century A. D., advocated for his feminine patients a cosmetic cream made of white wax and rose oil, and this preparation remained in pharmaceutical use for centuries.

Medical News

Births

TO DR. AND MRS. SAMUEL L. SCIBETTA, Erie, a son, recently.

TO DR. AND MRS. WILLIAM BAIRD STUART, Carlisle, a son, Feb. 15.

TO DR. AND MRS. CHARLES F. NETZEL, Plymouth, a daughter, Jan. 6.

TO DR. AND MRS. THOMAS J. CUSH, Elizabethtown, a daughter, Jan. 6.

Engagement

MISS JANET HARKINS and Dr. John J. Mraz, Erie.

Marriage

MISS SARAH MILLER, daughter of Dr. and Mrs. David I. Miller, Linglestown, to Mr. John Chalmers Sherger, son of Dr. and Mrs. John A. Sherger, Harrisburg, Jan. 28.

Deaths*

MRS. ALICE L. T. DRYSDALE, Philadelphia, widow of Dr. W. A. Drysdale; Jan. 28.

MRS. MARY MCARDLE McMULLIN, wife of Dr. Francis A. McMullin, Philadelphia; Jan. 21.

JOHN WEIR LEVERING, father of Dr. J. Walter Levering, Philadelphia; aged 73; Jan. 31.

MRS. CATHERINE HARRIGAN, mother of Dr. Joseph B. Harrigan, Wilkes-Barre; Dec. 26, 1933.

BERT HAUGHWOUT, Derry; Medico-Chirurgical College, Philadelphia, 1893; aged 66; Jan. 26.

MISS LYDIA HENRY STITES, daughter of Dr. and Mrs. T. H. A. Stites, Cresson; Jan. 10, pneumonia.

OSCAR J. CARLIN, Pottsville; Medico-Chirurgical College of Philadelphia, 1901; aged 57; Dec. 31, 1933.

JACOB E. LONGACRE, Weaversville; University of Pennsylvania School of Medicine, 1894; aged 63; Jan. 17.

WILLIAM EDWARD ERRETT, New Stanton; University of Pittsburgh School of Medicine, 1900; aged 60; Jan. 26.

HARRY WILSON TRIMMER, South Gibson; Medico-Chirurgical College, Philadelphia, 1888; aged 70; Jan. 13, heart disease.

THOMAS W. BROCKBANK, Philadelphia; College of Physicians and Surgeons, Baltimore, 1885; aged 73; Feb. 8. Not a member of his county medical society.

JAMES S. KOONTZ, Johnstown; College of Physicians and Surgeons, Baltimore, 1891; aged 75; Jan. 15. He is survived by his widow, 4 daughters, and a son.

PHILLIP M. BIKLE, father of Dr. Paul H. Bikle, Mifflinburg; aged 89; recently. Mr. Bikle was emeritus professor of latin and dean of Gettysburg College for many years.

BENJAMIN F. EVANS, Clarks Green; Albany Medical College, 1875; aged 83; Jan. 30, after a long illness. Not a member of his county medical society. A widow and 3 children survive.

THOMAS SHELDON TAYLOR, Schellsburg; University of Louisville School of Medicine, 1907; aged 48; Feb. 10, while on a trip to Miami, Florida. Not a member of his county medical society.

CHARLES H. FURNEE, Kittanning; Vanderbilt University School of Medicine, 1898; served in the Spanish American War and in the World War; member of his county and State medical societies; aged 56; Feb. 2.

* The death of James K. McShane, Philadelphia, was erroneously reported in the February issue of the JOURNAL. Dr. McShane is now practicing in Miami, Florida.

EDWARD OTTO BANG, South Canaan; Temple University School of Medicine, 1906; member of his county medical society, held the office of president, secretary, and treasurer at different times; State Medical Society, and the A. M. A.; aged 59; Jan. 10, coronary thrombosis.

ALEXANDER W. RANSLEY, Philadelphia; University of Pennsylvania School of Medicine, 1875; aged 83; Jan. 28. Dr. Ransley until his retirement 3 years ago practiced in Philadelphia. He had been on the surgical staff of St. Agnes' Hospital and the Philadelphia General Hospital. He is survived by his widow and a sister.

JOHN S. BORNEMAN, Boyertown; University of Pennsylvania School of Medicine, 1878; aged 82; Feb. 10, uremia, an illness of less than a week. Dr. Borneman was the oldest practitioner in his section, and had completed 56 years of practice. He was a member and former president of his county medical society, State Medical Society, and the A. M. A. His widow and 3 daughters survive.

CARL HEMPEL REED, Philadelphia; University of Pennsylvania School of Medicine, 1882; aged 73; Feb. 6. After practicing medicine a number of years, Dr. Reed discontinued practice to devote his time to music, and for many years was organist and choir master at St. Paul's Church. He was active in many organizations, and founder of Treble Clef and the women's choral organization. He is survived by his wife, a daughter, and a son.

HARRY A. P. NEEL, Philadelphia; University of Pennsylvania School of Medicine, 1877; aged 78; Feb. 5. Dr. Neel was physician at the House of Correction, Philadelphia, and in addition to his duties at the city institution and his private practice, he was a contract surgeon for the United States Army, having served for many years as surgeon at the Frankford Arsenal, Philadelphia. He was a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his widow and daughter.

RUSSELL H. JOHNSON, Philadelphia; University of Pennsylvania School of Medicine, 1871; aged 87; Jan. 28. Dr. Johnson was born in Philadelphia, attended Faires Classical Institute, and was graduated from Princeton in 1888. He was founder director of the Chestnut Hill (Phila.) Hospital. For 32 years he was in charge of the Pennsylvania Institution for the Deaf, until his retirement several years ago. He was a member of the College of Physicians, his county and State medical societies, and a Fellow of the A. M. A. He is survived by 2 daughters and 2 sons.

ERNEST LELAND PEET, Scranton; Hahnemann Medical College, 1896; aged 66; Jan. 24, at the State Hospital from injuries received by stepping in front of an automobile. He was born in Tuscarora, Bradford County, Pa., 1868; in 1892, he entered the Cleveland University of Medicine, Cleveland, Ohio, in which he remained for one year, entering the Hahnemann Medical College, Philadelphia, in 1893. He practiced medicine in Peckville for 2 years, then taking a postgraduate course in the New York Post Graduate School of Medicine. He was a gifted musician. Not a member of his county medical society. Dr. Peet is survived by his widow, a daughter, and a son.

HENRY N. HESS, Fryburg; College of Physicians and Surgeons, Baltimore, 1882; aged 81; Jan. 7. Dr. Hess was born July 13, 1853, in New Maysville, Clarion County. He received his early educational training in the public schools and the academies at Corsica and West Millville. He began practice at Fryburg, April 1, 1882, where he still retained his office and home. He was a member of his State and county medical societies. He served 2 terms as representative in the General Assembly at Harrisburg. He was one of the promoters that organized the First National Bank of Fryburg, of

which he was made president, and continued so until the time of his death. He is survived by 2 sons, one of whom is Dr. J. M. Hess, of Fryburg.

WILLIAM FARQUHAR BACON, York; Bellevue Hospital Medical College, New York, 1882; aged 74; Feb. 15, angina pectoris. Dr. Bacon was one of the oldest physicians in this county. As an appreciation of his 50 years of service at the York Hospital, he was honored with a testimonial banquet several years ago. He and the late Dr. H. B. King, of York, enjoyed unlimited success in surgery and were regarded as a "perfect team." Dr. Bacon was associated with the staff of the York Hospital since 1880, a member of the board of directors at the time of his death. He was a member of the York Medical Club, his county and State medical societies, and the A. M. A.; and many years a member of the board of directors of the Guardian Trust Company. He is survived by his widow, a daughter, a brother, and a nephew, Dr. John F. Bacon, of York.

LEWIS HENRY FACKLER, York; Jefferson Medical College, 1886; aged 75; Feb. 13, heart disease, stricken at his office. Dr. Fackler was born in West Manchester township, May 22, 1858, son of the late Daniel and Eliza Bull Fackler. After attending the rural schools of the township and the York County Academy, he taught in the rural schools. Later he attended the Millersville State Normal School for 2 years and taught in Mt. Joy for several years. After his graduation from medical school he began practice in York, remaining in the city for 9 months, after which he went to East Berlin as assistant to Dr. Robert Meisenhelder, later returning to York. He was particularly interested in obstetrics. He was a past president of his county medical society and for several years was chairman of the board of censors; member of the State Medical Society and the A. M. A.; served as a member of the York school board for one term. Among those who survive is a son, Dr. Charles L. Fackler, of York.

JOHN SCHAFER SCHNELLER, Catasauqua; University of Pennsylvania School of Medicine, 1910; aged 48; Feb. 6, heart disease. Dr. Schneller was born in Catasauqua, Dec. 31, 1885, of Moravian ancestry. He attended the public schools there, and later attended the Allentown Preparatory School from which he was graduated in 1902, receiving his B.Sc. degree at Muhlenberg College, 1906. He served his internship at the Allentown Hospital, and in 1911 started practice at Catasauqua. Dr. Schneller succeeded his father as a member of the board of the Lehigh National Bank; was a director of the Lehigh Building and Loan Association; one of the organizers and a very active member of the Catasauqua Chamber of Commerce, serving as its first president for several years; a member of his county and State medical societies; a Fellow of the A. M. A., and a Fellow of the American College of Surgeons. For a number of years he was chief obstetrician of the Sacred Heart Hospital, Allentown, connected with this department since its inception in 1912. He is survived by his widow and 2 sons, one of whom is a senior pre-medical student.

FREDERICK GOODMAN SANFORD, Jersey Shore; University of Pittsburgh School of Medicine, 1901; aged 55; Jan. 28, amebic dysentery, contracted a few months ago while attending the World's Fair in Chicago, and followed an operation for an abdominal abscess resulting from this disease. He died at Johns Hopkins Hospital, Baltimore. Dr. Sanford was born June 27, 1878, at Simsbury, Conn. He was educated in the public school, the New Hartford High School, and the Medical Preparatory at the Sheffield Scientific Department of Yale University. In 1901, following a postgraduate course at the New York Post Graduate School, he located in Jersey Shore, where in October, 1913, he established and conducted for more than 23 years the Dr. Sanford Private Hospital. In 1930, he added a maternity hospital to this institution.

Dr. Sanford was president and physician of the Jersey Shore Board of Health, for 20 years he had served as president; a member of the American Hospital Association, the Hospital Association of Pennsylvania, the Association of New York Central Lines Surgeons, the New York and New England Surgeons, his county and State medical societies, and the American Medical Association. Since 1924 he had been railroad surgeon for the New York Central. He was a director of the State Bank of Jersey Shore.

He is survived by his wife, a son, Dr. Frederick E. Sanford, 2 sisters, and a brother. Since September, 1933, his son has been associated with him in the Sanford Hospital.

Miscellaneous

DR. B. F. GRIFFITH has been appointed on the consultant staff of the Bloomsburg Hospital.

DR. LEROY E. CHAPMAN, Warren, is again a candidate for the office of State Senator, the position he now holds.

STATISTICS SHOW THAT more school boys die from accidents than from all the usual communicable diseases combined.

DR. R. F. OTTERBEIN, Warren, was recently thrown from his saddle horse but was fortunate to escape without serious injuries.

DR. D. FRANK HEILMAN, Northumberland, is making a satisfactory convalescence following the amputation of his right leg. The left leg was amputated in 1932.

DR. BERNARD MANN, attending gynecologist at Mt. Sinai Hospital, Philadelphia, will deliver the seventh of a series of public health talks, sponsored by the hospital, March 28, 8:30 p.m., on "Cancer."

AT THE STATED MEETING of the Philadelphia Roentgen Ray Society, Feb. 1, Dr. John T. Murphy, president, American Roentgen Ray Society, Toledo, Ohio, read a paper on "Bone Tumors—A Pathologic-Roentgenologic Conference."

A RECENT STUDY of statistics showed that 1921 was the record year for the birth of twins in Pennsylvania. In that year 2614 sets of twins were born in the State. Since then, a steady decline has been reported, until in 1931 less than 2000 sets of twins were born.

IT WOULD BE HARD to duplicate the record for municipal service of Dr. W. A. Ostrander, president of the Smethport borough council, McKean County, Pa. Dr. Ostrander on Jan. 8 started his 29th year as councilman. He is a member of the McKean County Medical Society.

THE PHILADELPHIA DEPARTMENT OF HEALTH is fighting the problem of racketeers falsely parading as meat inspectors in order to shake down butcher shops and trying to terrorize certain food store proprietors. It seems that the city has been flooded with rotten meat.

THE ÆSCULAPIAN CLUB of Philadelphia at its stated meeting, held at the club residence, devoted the evening to the discussion of medicolegal problems by the following members of the major judiciary of Philadelphia: Judges Harry S. McDevitt, Raymond MacNeille, Eugene V. Alessandroni, James M. Barnett, and John E. Walsh.

DR. CHEVALIER JACKSON has been appointed professor of bronchoscopy at the Woman's Medical College of Pennsylvania, Philadelphia, and chief of the new bronchoscopic clinic at the college hospital. Dr. Emily Lois Van Loon, professor of otolaryngology and newly appointed clinical professor of bronchoscopy, will assist Dr. Jackson.

MR. JOSEPH HIRSCH, 23-year-old son of Dr. Charles S. Hirsch, Philadelphia, was awarded, Jan. 27, the

Walter Lippincott Prize of \$300 for the best figure piece painted by an American citizen and exhibited in the current annual exhibition of paintings and sculpture of the Pennsylvania Academy of the Fine Arts.

AT THE MEETING of the Northumberland County Medical Society, Jan. 3, the following officers were elected: J. G. Strickland, Shamokin, president; I. E. Smigelsky, Mt. Carmel, first vice president; Henry F. Ulrich, Middleburg, second vice president; Mark K. Gass, Sunbury, secretary; R. B. McCay, Sunbury, assistant secretary-treasurer; C. M. Thomas, district censor; L. E. Schock, W. H. Eister, and C. W. Rice, censors.

AT THE ANNUAL GUEST MEETING of the Obstetrical Society of Philadelphia, Feb. 1, papers were read by Dr. Frederick C. Irving, professor of obstetrics, Medical School of Harvard University, on "Braxton Hicks Version"; and Dr. William P. Healy, gynecologist, Memorial Hospital, New York, "Experience with Radiation Therapy in Carcinoma of the Cervix."

TOO MUCH EFFORT cannot be put forward to reduce to a minimum accidents, and periodic safety campaigns should be established to the fullest extent. According to statistics for 1933, in the United States, 89,500 persons were killed, 8,500,000 disabled and with a wage loss of \$2,000,000,000. These figures stand out as indictment for carelessness.

DR. W. F. KUNKLE, oldest member of the Williamsport Hospital staff, from point of service, was given a surprise testimonial dinner at the hospital, Jan. 6, by the staff. Dr. Kunkle has been an active member of the eye, ear, nose, and throat staff for 40 years. An autograph album and a purse of money were presented to him.

CORONER J. EVANS SCHEEHLE, M.D., Delaware County, Pa., in submitting his annual report as of Dec. 1, 1933, shows what can be done in financial outlay for an efficient maintenance of a coroner's office. The total expenses, including salaries, were \$6124.20, which was \$166.56 less than for 1932; based on a population of 280,000. There were 446 cases investigated during the year.

THE FOLLOWING OFFICERS were elected by the Lycoming County Medical Society, Jan. 12: President, W. N. Shuman; first vice president, H. P. Haskin; second vice president, L. E. Langley; secretary, W. S. Brenholtz; treasurer, J. A. Campbell; reporter, L. M. Goodman; librarian, W. F. Kunkle; trustees, J. W. Arbogast, and A. M. Cook; censor, G. L. Schneider.

DR. JOHN A. KOLMER, Philadelphia, professor of medicine, Temple University School of Medicine, was awarded honorary membership in the Academy of Stomatology of Philadelphia, Dec. 19, 1934. On Jan. 15 he delivered an address before the Academy of Medicine of Cincinnati, on "Pulmonary Disinfection and Immunization"; and on Jan. 17, 18, and 19, addressed meetings of the Southwest District Medical Association at San Antonio, Texas.

OHIO STATE UNIVERSITY COLLEGE OF MEDICINE, oldest west of the Alleghenies, celebrated its centennial March 1 to 3. Although the medical school has been a part of Ohio State University only since 1914, it traces its history through an unbroken line to Willoughby Medical College, established in 1834 at Willoughby, Ohio. Among the speakers on the anniversary program was Dr. Francis Packard, Philadelphia, editor of *Annals of Medical History*.

THE THIRD MONTHLY POSTGRADUATE ASSEMBLY, held under the auspices of the Montour County Medical Society, was held at the Geisinger Memorial Hospital, Danville, Jan. 26. Robert Y. Grone was chairman, and the following were on the program: Harold L. Foss, Henry F. Hunt, Carl E. Ervin, Geisinger Hospital; Thomas C. Stellwagen, Theodore R. Fetter, Jefferson Medical College; Percy S. Pelouze, University of

Pennsylvania; Hugh H. Young, Johns Hopkins University.

The Daily Pennsylvanian, the student publication of the University of Pennsylvania, rendered a statement in a recent issue that the Student Health Service of the University should be abolished. The editorial reference states that the situation seems to be without remedy. The students cannot boycott the alleged health service for the charge is prorated on their bills each semester no matter what their wishes. The charge to students is \$10 a year, \$5 a semester.

TEMPLE UNIVERSITY, Philadelphia, celebrated its Fiftieth Anniversary during the week of Feb. 11 to 17. The School of Medicine offered an intensive course of lectures, demonstrations, and clinics to evaluate the present status of the medical art and its basic sciences during the Anniversary Week. The course was offered freely to all regular qualified practitioners of medicine in Pennsylvania, New York, New Jersey, Maryland, and Delaware.

THE FIFTIETH ANNUAL DINNER of the Luzerne County Medical Society was held at the Westmoreland Club, Jan. 17. Walter S. Stewart was the only member present who had attended the first annual dinner 50 years before. Retiring president, Charles L. Shafer, was toastmaster. President Donald Guthrie of the State Society; Edward W. Bixby, president-elect of the Luzerne County Society; Attorney John Collins, Wilkes-Barre, were a few of the speakers.

THE MERCK INSTITUTE of Therapeutic Research, Rahway, N. J., announces the appointment of Dr. Eugene Maier, a graduate of the University of Tuebingen, Wuerttemberg, Germany, and who completed his studies at the University of Erlangen, Germany, as chief bacteriologist. Dr. Maier was associated with the Rockefeller Institute of New York as research assistant, also at Bellevue Hospital, New York, in the department of pathology as bacteriologist for the Tuberculosis Division of Columbia University.

DR. HANS RITTER VON BAEYER, until recently professor of orthopedic surgery at the University of Heidelberg, Germany, well known for his work on "muscle training" in cases of paralysis following anterior poliomyelitis, who has recently accepted an appointment as lecturer at the Woman's Medical College of Pennsylvania, will deliver his first address at the college on March 10, when Founders Day, commemorating the 84th Anniversary of the founding of the college will be celebrated.

THE EIGHTY-FIFTH ANNUAL BANQUET of the Lycoming County Medical Society was held Jan. 12, at the Lycoming Hotel. Sixty-eight members and guests were present. L. M. Goodman was toastmaster. The speakers were as follows: "The Emergency Medical Relief Program," R. G. Leland, director, Bureau of Medical Economics, American Medical Association; "The State Medical Society," State President Donald Guthrie; "The Seventh Councilor District," District Councilor David W. Thomas; Retiring President's Address, George L. Schneider; Address of President-Elect, Warren N. Shuman.

AT THE MEETING of the Pennsylvania Conference on Social Welfare held at Lancaster, Feb. 21 to 24, the following physicians were on the program devoted to health: Theodore B. Appel, Harrisburg, State Secretary of Health, presided. Harold A. Miller, Pittsburgh, director of medical relief, Commonwealth of Pennsylvania, "Supervision of the Sick"; Donald Guthrie, Sayre, president of The Medical Society of the State of Pennsylvania, "The Medical Profession Plans for Protection"; Samuel McC. Hamill, Philadelphia, chairman, Emergency Child Health Committee, Commonwealth of Pennsylvania, "A Child Health Emergency Exists."

(Concluded on page xiv.)

for sick as well as normal babies

Dextri-Maltose, Carbohydrate of Choice

"As to the kind of extra carbohydrate to be added, whether lactose or maltose, I believe dextrin-maltose to be better in general in cases of fat indigestion (infantile atrophy)."—C. H. Dunn: *The Hygienic and Medical Treatment of Children*, Southworth Co., Tray, New York, 1917, V. 1, p. 418.

In discussing the treatment of (decomposition) Feer says: "The period of repair may be shortened by giving suitable additional food; the best, probably, being buttermilk to which carefully regulated proportions of dextrin and maltose preparations or malt soup are added."—E. Feer: *Text-Book of Pediatrics*, J. B. Lippincott Co., Phila., 1922, p. 284.

In the treatment of (infantile atrophy) Fischer recommends the following: "The carbohydrate should be increased by gradual addition of dextrin-maltose.

"Malt soup or dextrin-maltose (Mead's) should be added in teaspoonful or more doses to each feeding until the point of carbohydrate tolerance is reached."—L. Fischer: *Diseases of Infancy and Childhood*, F. A. Davis Co., Phila., 1925, V. 1, p. 285.

Concerning the treatment in the case of a (premature infant) Fischer states: "Dried milk with water was given, which later was changed to whole milk, 14 ounces; water, seven ounces, and dextrin-maltose No. 1, one and one-half ounces. Seven feedings of three ounces each every three hours was given. The above feeding was retained. The infant gained eight ounces at the end of the first week."—L. Fischer: *Clinical notes in a series of premature infants*, *Arch. Pediat.* 44:227-231, April, 1927.

Grulee, in discussing the treatment of (decomposition) says: "As a rule it is best to start with 2 to 2½ or 3 ounces of albumin milk to the pound weight in 24 hours; the sugar to be added is in the form of a maltose-dextrin mixture. One should never delay too long in adding this."—C. G. Grulee: *Infant Feeding*, W. B. Saunders Co., Phila., 1922, p. 265.

Referring to the (hypotrophic infant) Herrman writes: "In mild cases, the addition of dextrin-maltose instead of cane or milk sugar may be sufficient to obtain a gain in weight."—C. Herrman: *The treatment of nutritional disorders in artificially-fed infants*, New York M. J. 114:158-160, August, 1921.

In discussing artificial feeding in (athrepsia) Hess states: "The carbohydrates are usually added in a slowly fermentable form, such as the maltose and dextrin compounds, which are usually started by the addition of four grams per kilogram (1/15 ounce per pound) and increased until eight grams or more per kilogram (¼ ounce per pound) of body weight are added."—J. H. Hess: *Feeding and the Nutritional Disorders in Infancy and Childhood*, F. A. Davis Co., Phila., 1928, p. 278.

Concerning the treatment of (marasmus) Hill says: "When the stools have become smooth and saucer-like, carbohydrate, in the form of dextrin-maltose, may be gradually added up to the limit of tolerance."—L. W. Hill: *Practical Infant Feeding*, W. B. Saunders Co., Phila., 1922, p. 281.

"A (spasmophilic baby) on bottle feeding should receive a limited amount of milk—a pint, or at the most 2½ ounces in the 24 hours—to which cereal gruel and some form of sugar is added, preferably one of the malt dextrin preparations; also the early addition of other foods than milk to the baby's diet."—M. Jampolis: *Infantile spasmophilia*, *Interstate M. J.* 25:652, Sept., 1918; *abst. Arch. Pediat.* 35:691, Nov. 1918.

With reference to the treatment of (diarrhea) Lust writes: "After several days, 2% to 3% of a maltose-dextrin preparation may be added (Dextri-Maltose). This is preferable to the easily fermentable lactose or cane sugar."—F. Lust: *The Treatment of Children's Diseases*, J. P. Lippincott Co., Phila., 1930, p. 145.

"The treatment of artificially fed children in the first of these groups consists in putting them on a low fat dietary, and giving them carbohydrate in the form of one of the less fermentable sugars—e.g., dextrin-maltose."—L. G. Parsons: *Wasting disorders of early infancy*, *Lancet*, 1:687-694, April 5, 1924.

Pearson and Wyllie in discussing the treatment of milder cases of (inanition) say: "Regulation of this disturbed organismal balance is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrin-maltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—W. J. Pearson, and W. G. Wyllie: *Recent Advances in Diseases of Children*, P. Blakiston's Son & Co., Phila., 1930, p. 116.

Regarding the treatment of the (marantic infant) Raue states: "After the intolerance to sugar has been overcome a carbohydrate, preferably Dextri-maltose, may be added."—C. S. Raue: *Diseases of Children*, Boericke & Tafel, Phila., 1922, p. 427.

In discussing the treatment of (atrophy) Thursfield and Paterson, state: "If the baby continues to improve, the next step in the treatment is to add to the milk one of the less fermentable carbohydrates, such as dextrin-maltose . . . —H. Thursfield and D. Paterson: *Diseases of Children*, William Wood & Co., 1929, p. 105.

"I also find dextrin-maltose an excellent addition to albumin-milk when the first object of that food has been achieved and a gain in (weight is desired) in this way I have succeeded in feeding albumin-milk far beyond the period usually advised, with highly gratifying results."—F. L. Wachenheim: *Infant-Feeding; Its Principles and Practice*, Lea & Febiger, Phila., 1915, p. 158.

"Dextrin-maltose has been substituted for lactose not infrequently, when the tolerance for the latter continues low."—L. H. West: *Low fat, high starch evaporated milk feeding for the (marasmic baby)*, *Arch. Pediat.* 48:189-193, March, 1931.

"Malt sugar is indicated when others fail to produce a sufficient gain, or when (malassimilation of fat) is evident."—O. H. Wilson: *The role of carbohydrates in infant feeding*, *Southern M. J.* 11:177, March, 1918; *abst. Arch. Pediat.* 35:447, July, 1918.

SIGNIFICANCE OF THE MEAD POLICY

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MEDICAL NEWS

(Concluded from page 554.)

THE COMMITTEE ON JOURNAL AND PUBLICATION of the Nebraska State Medical Society at an annual business meeting, Jan. 15, decided that more economies were necessary to keep within the income.

It is, therefore, thought necessary for the present, at least, to abandon the policy heretofore pursued of furnishing cuts to illustrate articles, except in cases in which in the judgment of the publication board, this is thought necessary. Those cases now in the editor's office will be handled as under the former policy, but in case of new copy the rule will apply.

The publication board has also decided to cut off from the complimentary mailing list all libraries in the state, except those connected with the two medical colleges in Omaha. Heretofore for a number of years the journal had been mailed complimentary to a list of about 175 public libraries in that state.

TEMPLE UNIVERSITY SCHOOL OF MEDICINE has announced the following promotions: Pascal F. Lucchesi from demonstrator to lecturer in pediatrics; James E. Bowman and William N. Crawford from instructors to demonstrators in pediatrics; Scott Verrei and Paul B. Bender from clinical assistants to instructors in pediatrics; W. Emory Burnett and J. Norman Coombs from lecturers to associate in surgery; Nicholas Gotten from lecturer to associate in neurosurgery; and Harry E. Bacon and Harry Weber from demonstrators to lecturers in proctology. The following appointments are announced: Morton J. Oppenheimer, instructor in physiology; Sol Arthur Goldberg, clinical assistant in laryngology and rhinology; Winslow T. Tompkins, instructor in obstetrics; John Hellman Taefner, clinical assistant in neurosurgery; Elizabeth Humeston, and Sidney Weiss, clinical assistants in pediatrics; H. A. K. Mingle, clinical assistant in surgical research; Leon S. Caplan, Lawrence N. Ettelson, Joseph A. Pescatore, and Herman Gold, clinical assistants in medicine.

DR. A. BIELSCHOWSKY, professor of ophthalmology at the University of Breslau, will give a series of 4 lectures on "The Ocular Muscles," at the Wills Hospital, March 20, 21, 22, and 23, at 4:00 p.m. Each lecture will consist of a discussion of the physiology and pathology of ocular muscle paralyses and the more unusual forms of concomitant squint, and will be followed by a demonstration of patients and lantern slides illustrating the subject matter.

The fee for the course will be \$10 a person, and the course will be limited to 40 applicants. Admissions will be by ticket only. Reservations for the course should be made as soon as possible with a check for \$10 made out to Dr. Francis Heed Adler, secretary-treasurer, 313 South 17th Street, Philadelphia, Pa.

THE FOLLOWING BEQUESTS have recently been made:

The Frankford Hospital, Philadelphia, \$1000, will of Miss Mattie M. Wallace.

Protestant Episcopal Hospital, Philadelphia, \$10,000, will of George H. Frazier.

The Woman's Hospital of Philadelphia, \$5000, will of Miss Jessie W. Masters. At the death of her brother, if there are no children, an additional \$28,000 is bequeathed to the hospital.

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INJURIES OF THE NERVES AND TENDONS OF THE HAND*†

SUMNER L. KOCH, M.D., CHICAGO, ILL.

The principles of the immediate treatment of injuries of the hand are not different from those of other injuries, but injuries of the hand seem to us particularly important because they are so common and because the function of the hand looms so large in the lives of every one of us.

In the treatment of an injured hand it is of first importance to have a definite and accurate knowledge as to the extent of injury. Too often one finds only after the most opportune moment for treatment has passed that important nerves, tendons, or bones have been injured as a result of what was apparently a simple and uncomplicated traumatism. In few parts of the body, moreover, is it possible to determine so accurately by examination of the part, not of the wound, the exact nature and extent of the injury.

We are inclined to think of the hand as a complicated mechanism and to consider an exact diagnosis as difficult of accomplishment. It should not be so. In injuries of the volar surface of the forearm and hand the structures likely to be involved are median and ulnar nerves and long flexor tendons. The symptoms of median nerve injury are definite and easy to elicit—anesthesia in the area of median nerve distribution, roughly the volar surface of $3\frac{1}{2}$ fingers, and loss of ability to rotate the thumb so that it faces the fingers. The symptoms of ulnar nerve injury are equally definite—anesthesia in the area of ulnar nerve distribution, the volar and dorsal surfaces of $1\frac{1}{2}$ fingers, and loss of the ability to abduct the fingers from and abduct them toward the midline of the hand. Because of the close proximity of the ulnar artery and veins there is invariably associated with ulnar nerve injury the severe hemorrhage that results from injury of ulnar artery or veins or both.

There are, of course, other symptoms of median and ulnar nerve injury, but those mentioned are unequivocal and diagnostic.

The symptoms of division of the long flexor of the thumb and of the flexor digitorum profundus are equally definite—loss of power of flexion at the interphalangeal joint of the thumb, and at the distal interphalangeal joints of the 4 fingers. Division of the flexor digitorum sublimis and of the flexors of the wrist is more difficult to recognize by examination of the hand itself, but a glance at the wound is usually sufficient to tell the surgeon that some of these tendons, at least, have been injured.

With injuries involving the dorsal surface of the hand and forearm the diagnosis is equally simple. Below the middle of the forearm the radial nerve is purely a sensory nerve; its division results in anesthesia of the dorsal surface of three and one-half fingers. Division of long or short extensor of the thumb, of the extensors of the wrist, of the common extensor of the 4 fingers, or any one of its constituent tendons is not likely to be overlooked if the surgeon simply tests the patient for ability to extend the thumb, the fingers, and the wrist.

The second step in the immediate treatment of a hand injury is to determine what treatment should be carried out when the patient is first seen. In reaching this decision 3 questions are of paramount importance and deserve consideration that they do not always receive. They are: Is the wound clean? Is it contaminated? Is it already infected? To answer these questions is often difficult, but experience has impressed several facts upon us. First, that so far as the patient is concerned the danger from infection far outweighs the possible harmful effects that may follow an injury of the soft tissues or bone, with the exception of course of a severe and life threatening hemorrhage. Second, that if there

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

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is a question as to the possibility of converting a contaminated wound into a clean wound, or whether infection has already developed it is better to leave the wound alone, as far as any operative repair of injured structures is concerned, than to run the risk of disseminating virulent organisms throughout the tissues. Third, that in the cleansing of a contaminated wound or in the preparation of a clean wound for operation, nothing is quite so valuable as soap and water. I hesitate to dwell on something so simple and commonplace, and yet each of us is responsible to a certain extent for the teaching of medical students and interns, and this aspect of surgical teaching is often neglected as scarcely worthy of our time and attention. We live in an "antiseptic age." We are constantly bombarded with arguments and literature extolling this and that antiseptic and are prone to forget the important lesson, demonstrated so forcibly during the World War, that if wounds are carefully cleansed before sufficient time has elapsed for bacteria to invade the tissues, and if this is done without injuring the living tissue no antiseptics are necessary. For a long time in our own work and in our ward at the Cook County Hospital we have prepared compound injuries for operation by laying sterile gauze over the wound, carefully cleansing a wide area about the wound with soap and water and finally cleansing the wound itself as gently and as thoroughly as possible with soap and water only. The results obtained have convinced us that if one cleanses contaminated tissues with the most efficient cleansing agent we know which does not injure delicate living tissue cells—in other words, with soap and water—and does it so gently that his manipulations do not injure these delicate cells, healing with a minimum of wound reaction is more certain to result than if he floods the wound with chemical solutions which coagulate and destroy tissue and so help to form excellent culture media and favorable conditions for bacterial growth. Finally, in the repair of injured tendons and nerves no factor is so important in securing a successful result as healing of the operative wound without infection and by primary union, and in order to secure such a result it is wiser in doubtful cases to suture the carefully cleansed wound loosely, or to leave it unsutured and postpone further operative repair until it can be performed as a perfectly clean operation, than to run the risk of having infection develop after an immediate operation and nullify completely the results of operation and, in some cases, make practically impossible any subsequent operative repair.

To be more specific, the criteria we have come to depend upon in deciding the question of im-

mediate operation are these: The cause of the wound, the condition of the hand, the site of injury, the conditions under which the injury was sustained, first-aid treatment rendered, time that has elapsed, and facilities available for repair. If the wound is due to a clean and cutting instrument, if the wounded part was clean, if the wound was sustained indoors and not on the street or open road, if the first-aid dressing was surgically clean, if the patient is seen within three hours after the injury, and if hospital facilities are available for operation, one is justified in carrying out an immediate repair. If all these conditions are not fulfilled, it is wiser to postpone the repair of nerve and tendon injuries until the wound is soundly healed and until the operation can be performed under ideal conditions.

THE REPAIR OF NERVES AND TENDONS

In the surgical treatment of injured nerves and tendons after wound healing is complete a number of technical details are of great importance. First of these is care to eliminate the possibility of infection for, as stated, no single factor is so important in securing a successful result as healing by primary union. The hand is carefully cleansed with warm soapy water the evening before operation. It is then covered with a sterile dressing which is not taken off until the patient reaches the operating room. In the operating room a blood pressure cuff is applied to the arm and the hand and forearm are painted with 5 per cent picric acid in 50 per cent alcohol just before the sterile linen is applied.

The nose as well as the mouth of every one who enters the operating room is masked, for we are convinced by Meleney's studies and by our own clinical observations that wound infection can result from virulent bacteria entering the wound from the uncovered nose of surgeon, nurse, or assistant.

If possible, we prefer to use a general anesthetic—nitrous oxide, ethylene, or ether—in the treatment of a severely injured hand, so as to avoid injecting a local anesthetic into tissues which have already been injured, and so as not to make the blood pressure band a source of discomfort to the patient.

Just before the incision is made the arm is held elevated for a few minutes, and the field of operation made bloodless by inflating the blood pressure band to 240 mm. One cannot perform accurate and satisfactory nerve and tendon suture unless the field is free from blood, nor can one avoid traumatizing delicate tissues if constant and repeated sponging is necessary.

If possible, the incision is made in such a way

as to avoid cutting across flexion creases and so as to permit one to lay a flap of skin and subcutaneous tissue across the line of nerve and tendon suture. In other words, in cases of median and ulnar nerve injury one tries to avoid a vertical incision along the middle of the volar surface of the forearm, an incision which is difficult to suture if it is necessary to flex the hand at the wrist to avoid tension, and which makes it necessary to suture skin and subcutaneous tissue directly over the line of nerve and tendon suture.

In dissecting free the injured nerves and tendons it is wise to work toward the site of injury from normal tissue above and below the wound, for one soon becomes hopelessly lost if he tries by direct attack to identify important anatomic structures which are bound together in a mass of fibrous tissue. When the injured nerves have been identified and freed the tendons are taken in turn. Every effort is made to perform a sharp, clean cut dissection, to avoid tearing of tissues and traumatism with forceps and blunt instruments. If traction on them is necessary, nerves and tendons are held with moist gauze sponges rather than with sharply pointed tissue forceps; when they are freed and identified they are protected with gauze or cotton soaked in warm salt solution until the dissection is completed.

When dissection of the nerves and tendons is completed, it is wise to release the constriction and ligate any vessels that may be bleeding. The arm is then elevated again and the constriction reapplied to check the persistent oozing that can

be stopped only by constriction or by pressure.

Tendons are sutured first, and if possible end-to-end. Nerves are then sutured end-to-end with the very finest of silk suture material, that includes only the epineurium. Finally the subcutaneous tissues are united with fine black silk and the skin with fine needles and fine suture material, that do not leave holes in the skin through which bacteria can enter the deeper tissues.

The sutured wound is covered with a large dressing of sterile gauze and bandaged under moderate pressure; only when the bandage has been applied is the constriction released and the blood allowed to flow back into forearm and hand.

A light aluminum splint is applied to hold the hand and forearm in the desired position. For example, with injuries involving the volar surface of the hand and forearm it is usually necessary to apply a splint which maintains volar flexion at the wrist, so as to eliminate any tension on sutured nerves and tendons. The splint is gradually straightened and usually dispensed with at the end of 3 weeks.

Two or 3 days after operation gentle movement of the fingers is begun, and increased as rapidly as it is possible to do so without endangering the healing wound or causing undue pain. Skillful physical therapy and well directed exercises, carried out for a number of weeks after operation, are of very great value in hastening the restoration of function.

54 East Erie Street.

ANEMIAS OF INFANCY AND CHILDHOOD*

EDMUND R. McCLUSKEY, M.D., PITTSBURGH

Anemia is a deficiency of red blood cells or of hemoglobin, or of both, and may arise from:

1. Hemorrhage.
2. Deficiency of one or more elements necessary for synthesis of hemoglobin or the production of the erythrocyte, or of both, as happens rarely in aplasia of the blood forming tissues.
3. Increased blood destruction which, for lack of a better term, we call hemolytic or erythrocytolytic.

We are reminded that the picture of anemia, which we demonstrate in making a diagnosis, is the end process and that all the blood forming tissues are affected with more or less severity, down to the actual beginnings of the blood cells. Frequently, not only the erythroblastic tissues

suffer, but also the myeloblastic and lymphoblastic tissues share in the pathology, and much of our nomenclature is derived from the predominating pathology with scant regard for other factors involved.

Frequently, anemias will not fit perfectly into either classification, as the anemia of the newborn, in which low production shown by few reticulocytes in neonatal blood smears, is complicated by excessive destruction as shown by increasing anemia, jaundice, increased icterus index, and the increased urinary and fecal excretion of bile pigments. A nutritional (deficiency) anemia may be suddenly complicated by hemolytic phenomena (usually with some evidence of infection present), and again becomes a deficiency anemia, yielding to routine treatment, as the hemolytic process subsides. In discussion of

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

these groups, the possibility of an anemia finding a place in either classification must be borne in mind.

1. ANEMIAS OF DEFICIENT FORMATION

A. Nutritional Anemia.

Cause: Lack of available iron and copper in the system.

Predisposing Causes:

1. *Prematurity.*—Anemia is more frequent and more severe in children of low birth weight. The smaller the child, the more severe the anemia which usually follows.

2. *Rate of growth.*—Rapid growth depletes the available iron and copper in the system and anemia is apt to result. This partially explains the anemia of prematures who triple and quadruple their birth weight in 4 to 6 months; also, the pallor of large fat babies.

3. *Infections.*—Here cross classification enters, for infections not only diminish production (shown by decreased reticulocyte counts), but also increase destruction, shown by the increased icterus index in the blood.

4. *Diet.*—The longer a diet, which consists wholly of milk, is continued, the more subject the patient is to anemia, despite the addition of ample vitamin supply. If factors as vegetable and egg can be safely added, greater protection is afforded.

5. *Maternal factor.*—Anything which interferes with maternal storage of iron will lessen the amount of available iron for the fetus and predispose to neonatal anemia. In some few cases, it has been suggested that the fetus is not a true parasite for available iron as for calcium and phosphorus and may suffer as a result. Immaturity of the mother leads to anemia in the offspring.

6. Severe icterus of the newborn renders the child more susceptible to subsequent nutritional anemia:

Signs:

a. Pallor, noticed at rest, particularly in lips; though masked by activity as crying or the glow produced by direct heat, as from an open fire, or following a bath.

b. The child is susceptible to intercurrent infections.

c. Physical findings are negative. There is usually no splenic nor hepatic enlargement.

Blood picture is that of a hypochromic microcytic anemia. The red blood cells may be normal or slightly reduced, the hemoglobin reduced to 30 to 40 per cent, with corresponding reduction in color index. The cells are small. The Price-Jones curves tend to the left of normal. White

blood cells are normal or moderately increased. Few reticulocytes appear in smears but increase with treatment.

This anemia is found in children particularly those about age 6 months. Mackay states that the anemia seen in the first 3 months is complicated by the additional factor of blood destruction, hence is not purely a nutritional anemia. The secondary anemia following prolonged infections is of this type and is caused by lack of production. The acute infections cause both hemolysis and low production. The anemia yields to treatment as the infection subsides.

In older children, we see nutritional anemias which tend to be complicated with intercurrent infection.

II. HEMOLYTIC ANEMIAS IN INFANCY AND CHILDHOOD

This series shows definite distinguishing characteristics.

A. Anemia is usually severe, of hyperchromic type, the color index being near or above unity. Those of the prenatal and neonatal period are characterized by increase in nucleated red cells in the blood stream, due to the increased activity of fetal hematopoietic centers in liver, spleen, and elsewhere. These centers have long disappeared in older children and erythroblastic response is not as marked except in the erythroblastic anemia of Cooley. The factor causing anemia affects all blood elements. There is usually an increase in myeloid cells, with varying quantities of immature forms. The platelets are usually diminished. Fragility is normal or slightly lowered. The causative agent may produce complete paralysis of hematopoiesis. Reticulocytes are seen as regeneration occurs.

B. Jaundice, varying from mahogany brown in severe icterus gravis to *café au lait* of von Jaksch's anemia. There is increased icterus index and increased bile pigment excretion in urine and feces.

C. Van den Bergh, positive indirect reaction of varying degree. This is negative as the jaundice subsides.

D. The liver and spleen are usually enlarged. The hepatic enlargement being more marked and more constantly present. In more severe types, the heart is enlarged.

This form of anemia may complicate nutritional or deficiency anemia with accentuated decrease in red cell and hemoglobin levels. It differs from nutritional anemia:

1. Hyperchromic in type.

2. Excess of bile pigment in skin, blood serum, urine, and feces.

3. Positive indirect van den Bergh.

4. Reticulocytosis.
5. Eosinophilia usually seen as patient recovers.

In hemolytic anemias, the predominating hemolysis or destruction must not overshadow the knowledge that production has virtually ceased and that ordinary therapeutic measures are insufficient to sustain the patient.

Classification:

1. Those of prenatal and early infancy:
 - a. With hydrops.
 - b. With icterus gravis.
 - c. Without hydrops or icterus gravis (congenital anemia).
2. Those of later infancy and childhood:
 - a. Acute hemolytic anemia (Lerderer).
 - b. Subacute hemolytic anemia.
 - c. Subchronic hemolytic anemia — (von Jaksch's).
 - d. Congenital defects of the erythron (?).
 - i. Erythroblastic (Cooley).
 - ii. Sickle cell.
 - iii. Acholuric jaundice.

HEMOLYTIC ANEMIAS OF PRENATAL AND EARLY INFANCY

With Hydrops:

This condition is characterized by local or general edema in a stillborn or short-lived child. The liver and spleen are markedly enlarged. The heart is usually large.

Pallor is marked; jaundice is slight; anemia is severe. Red cells are low, 500,000 per c. c. are found. Normoblasts are present up to 50,000 per cu. mm. The myeloid cells are increased.

With Icterus Gravis:

Jaundice features this condition, being present at birth or soon after. The child may have a greenish yellow vernix covering it and the amniotic fluid is distinctly bile stained. The condition is usually fatal and may be anticipated from family history of stillbirths or neonatal deaths of jaundiced babies. The child becomes drowsy, apathetic, respirations become rapid. Coma and death may result. Occasionally, the spasticity and convulsions of Kernicterus appear. Localized edema is frequently seen. The liver is much enlarged. The spleen is usually palpable. The blood picture is characterized by many nucleated red cells with marked general anemia.

Pathology is that of marked erythroblastic activity in most organs, particularly the liver.

Without Hydrops or Icterus Gravis:

1. Congenital anemia, of Apt; or Pashoff and Wilson.
2. Anemia of the newborn, of Diamond, Blackfan, Baty.
3. Hemolytic anemia of later neonatal period, of Parsons, Hawksley, Gittens.

A hyperchromic anemia developing a few days to a few weeks after delivery: The noticeable feature is marked pallor with very slight, if any icterus. The liver and spleen are usually enlarged. Normoblasts are present but in limited numbers; anemia is marked with extremely low levels for red cells and hemoglobin. The white count is increased and early forms tend to be present. The prognosis is good. This picture approximates that of von Jaksch's anemia.

HEMOLYTIC ANEMIAS OF LATER INFANCY AND CHILDHOOD

Acute Hemolytic Anemia:

An anemia characterized by sudden onset, with an acutely ill child, having abdominal pain, diarrhea, and vomiting. The liver and spleen are enlarged. The child may be slightly jaundiced. A severe hyperchromic anemia is present, with marked marrow reaction 20,000 to 40,000 leukocytes. The recovery is prompt. This was first reported by Lerderer. Reticulocytes increase as improvement occurs.

Subacute Hemolytic Anemia:

This group is characterized by a gradual onset and symptoms which approach the von Jaksch's syndrome. The liver and spleen are palpable. There is no elevation of temperature. Fragility of red blood cells is normal. The color index is near or above unity. Reticulocytosis and some myelocytosis are present. Here the process is slower and less severe than in the acute hemolytic anemia.

Von Jaksch's Anemia:

An anemia in children usually under age 3, characterized by pallor and edema of the ankles. Petechiae may be present. Marked enlargement of the spleen accompanied by some enlargement of the liver is a salient feature. The blood is hypochromic with about 2,000,000 to 2,500,000 red blood cells; hemoglobin, 40 per cent or less. Color index, 0.5 to 0.7. Leukocytosis up to 30,000 with 2 to 6 per cent myelocytes and nucleated red cells. This condition is frequently associated with rickets which has been suggested as a cause. Other authors suggest, as a cause, toxins, poisons, or infectious agents acting on an immature blood system. The prognosis is good.

Congenital Anemia (?):

The suggestions that these anemias may be due to some congenital defect in the hematopoietic system has been made owing to: (1) Racial incidence; (2) familial incidence. This assumption lacks proof.

- i. Erythroblastic anemia of Cooley.—These are young patients (usually under age 3), of

Mediterranean ancestry, showing progressive anemia with many nucleated erythrocytes in the blood stream, from few hundred to 125,000 per cu. mm. There is increase in myeloid cells.

The patient is slightly icteric. The abdomen is prominent, liver and spleen being enlarged. The facies tends to be Mongoloid. The roentgen ray shows thinning of cortex of long bones and thickening of cranial bones with radiating spicules present, giving a "fuzzy" appearance. The prognosis is poor.

ii. Sick cell anemia.—Negro children with icteric sclera usually under age 15. Believed to be a transmitted condition following mendelian laws. There is generalized weakness, a heart murmur, the liver is enlarged, and the spleen palpable. Sick cells are usually up to 4 or 5 per cent. There is moderate leukocytosis. The

parietal bones are thickened and the cortex of long bones is thinned.

iii. Acholuric jaundice.—A familial type of jaundice, characterized by increased fragility of the red blood cells and a microcytic anemia. This type of jaundice is more chronic than others. The hemolytic phenomena do not have as marked effect, as the marrow is relatively undamaged and new erythrocytes are constantly being formed. This disease usually yields to splenectomy, although there are exceptions (Freund).

CONCLUSION

The more common anemias of infancy and childhood have been mentioned and briefly discussed.

Medical Arts Building.

ACUTE APPENDICITIS*†

JOHN O. BOWER, M.D., PHILADELPHIA

For eight years I have been interested in the mortality of acute appendicitis in Philadelphia.

My object in presenting this communication is to interest the members of The Medical Society of the State of Pennsylvania in the mortality of acute appendicitis throughout the State by emphasizing the mortality and a plan for its reduction.

The mortality of appendicitis in the United States is excessively high as compared with other countries and up to 1932 has steadily increased.

In 1928, the death rate from acute appendicitis in the United States was 15.3 per 100,000, a mortality that is:

- 59.3 per cent higher than the city of Mexico;
- 70. per cent higher than Germany;
- 70. per cent higher than Scotland;
- 98.7 per cent higher than New Zealand;
- 109.5 per cent higher than England and Wales;
- 131.8 per cent higher than Irish Free State;
- 313.5 per cent higher than Italy.

According to Dr. Hoffman, consulting statistician of the Prudential Life Insurance Company: "During 1932 in 177 cities with a population of 43,021,704 there were 7136 deaths, a mortality rate of 16.6 per 100,000." Still using Dr. Hoffman's figures: "In 1932 in 10 of the largest cities of Pennsylvania exclusive of Philadelphia with a population of 1,474,567 there were 301 deaths, a mortality rate of 20.5 per 100,000. In 1931 these same cities with a popu-

TABLE 1.—The Following Table Shows the Death Rate from Appendicitis in Cities with a Population of 300,000 or Over*

City	Population	Deaths	Death rate per 100,000, 1932	Death rate per 100,000, 1931	Death rate per 100,000, 1930
Indianapolis, Ind. .	375,042	41	10.9	13.2	15.3
Philadelphia, Pa. . .	1,978,663	223	11.3	13.9	14.4
Los Angeles, Calif. .	1,382,066	168	12.2	14.6	15.3
San Francisco, Calif. .	662,204	83	12.5	15.5	15.1
Seattle, Wash.	376,518	48	12.7	17.2	14.7
Milwaukee, Wis. . . .	604,628	78	12.9	17.0	20.5
Cleveland, Ohio . . .	922,974	129	14.0	18.1	17.2
Detroit, Mich.	1,693,861	241	14.2	17.8	18.7
Chicago, Ill.	3,523,345	511	14.5	17.7	18.2
New York City, N. Y. .	7,215,782	1065	14.8	16.3	15.9
Baltimore, Md.	820,345	125	15.2	14.5	18.2
St. Louis, Mo.	832,652	129	15.5	19.8	21.3
Rochester, N. Y. . . .	335,179	53	15.8	16.0	15.8
Houston, Texas	325,913	52	16.0	7.4	.....
Pittsburgh, Pa.	686,462	120	17.5	16.5	16.4
Portland, Ore.	310,992	55	17.7	15.3	14.5
Jersey City, N. J. . . .	320,765	57	17.8	16.0	15.8
Atlanta, Ga.	307,329	56	18.2	.....	.....
Boston, Mass.	788,397	150	19.0	22.7	21.5
Washington, D. C. . .	497,315	98	19.7	18.9	20.1
Toledo, Ohio	301,086	60	19.9	.....	.....
New Orleans, La. . . .	474,341	99	20.9	25.0	23.0
Louisville, Ky.	323,621	68	21.0	17.7	18.8
Newark, N. J.	448,385	95	21.2	20.6	22.6
Minneapolis, Minn. . .	482,608	106	22.0	21.7	23.2
Buffalo, N. Y.	587,521	130	22.1	20.7	19.5
Columbus, Ohio	302,228	73	24.2	.....	.....
Kansas City, Mo. . . .	416,162	104	25.0	28.6	26.4
Cincinnati, Ohio . . .	462,041	125	27.1	28.2	24.1
Total	27,758,427	4342	15.64	17.36	17.62

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.
† The figures and facts presented were made available by the Department of Public Health, Philadelphia, of which J. Norman Henry, M.D., is director.

* This table and those published in *The Bulletin* for December, 1932, were taken from *The Spectator* "The Appendicitis Record" for August, 1933, 1932, and 1931.—Frederick L. Hoffman, L.L.D.

lation of 1,460,063 had 255 deaths, a mortality of 17.4 per 100,000. Philadelphia in 1931 with a population of 1,966,351 had 274 deaths, a mortality of 13.9 per 100,000; and in 1932 with a population of 1,978,663 there were 223 deaths, a mortality of 11.3 per 100,000.

TABLE 2.—Ten Largest Cities in Pennsylvania

City	1931			1932		
	Population	Deaths	Death rate per 100,000	Population	Deaths	Death rate per 100,000
Allentown	94,873	16	16.9	96,721	24	24.8
Erie	118,697	16	13.5	120,881	26	21.5
Harrisburg ...	80,849	24	29.7	81,281	30	36.9
Johnstown ...	67,038	18	26.9	67,074	18	26.8
Lancaster	60,774	18	29.6	61,434	13	21.2
McKeesport ...	55,577	10	18.0	56,333	3	5.3
Pittsburgh ...	679,672	112	16.5	686,462	120	17.5
Reading	111,576	21	18.8	111,900	30	26.8
Seranton	144,123	13	9.0	144,673	31	21.4
Williamsport .	46,884	7	14.9	47,808	6	12.6
Total	1,460,063	255	17.46	1,474,567	301	20.41
Philadelphia .	1,966,351	274	13.9	1,978,663	223	11.3

Why is the mortality in these cities in 1932, higher by 23.5 per cent than the average for the United States (177 cities) and 81.5 per cent higher than that of Philadelphia? The answer is that in Philadelphia something has been done about it. Appendicitis is appendicitis, no matter what hospital you enter; and surgeons and hospitals throughout the State are just as good as they are in Philadelphia but there is this difference between these other cities and Philadelphia: Here we are teaching the public that abdominal pain which lasts 6 hours is serious and at no time in instances of abdominal pain should a laxative be administered.

Most of you present have attended Dr. Deaver's Clinic and heard him rant about laxatives and delay—and you have heard other surgeons who were almost as eloquent as Dr. Deaver, but it did very little good, because Dr. Deaver and the other surgeons had physicians for an audience. If we are to go places and do things with the reduction of the mortality of acute appendicitis we will have to tell the world and not physicians about delay in hospitalization and the administration of laxatives. Any campaign to be successful must include publicity as its outstanding essential feature. This has been done in Philadelphia. We have tried to make the population appendicitis conscious, and through the coöperation of the Philadelphia Association of Retail Druggists this placard was posted in the majority of drug stores in Philadelphia:

Appendicitis

Severe pains in the abdomen are often dangerous. Do not take purgatives. Call a physician. Deaths from appendicitis are increasing annually.

In addition we sent these stickers to family physicians who affixed them to statements rendered their patients. Of these, 600,000 were sent to more than 3000 physicians in 2 years. Last year, however, the Department of Health did not issue *Healthfax* and we were obliged to find another method of distribution so we decided to go direct to those that develop appendicitis most frequently. The greatest incidence of acute appendicitis is between ages 11 and 20. Talks were given to high school pupils and stickers were distributed directly to them with the request that they stick them on a book they use daily. We covered only a portion of the city this year, but we hope to make it complete this coming year.

WARNING

In the presence of abdominal pain:

Never give a laxative.

Give nothing by mouth.

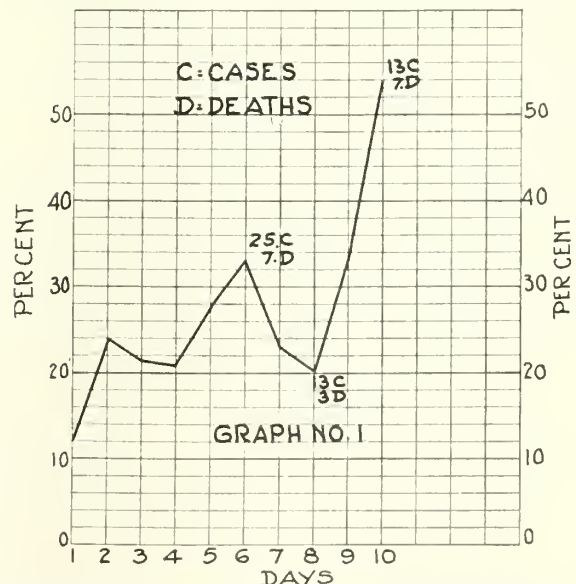
Apply ice cap or hot water bottle.

Call your family physician.

Abdominal pain which lasts more than six hours is usually serious.

This warning is published by the Philadelphia County Medical Society and endorsed by the Department of Public Health.

We told them of the dangers of delay and showed a slide of the total number of cases admitted to our hospitals the past five years with



GRAPH 1.—Mortality curve in 24-hour groups for 457 cases of spreading peritonitis in 28 hospitals of Philadelphia for 1932. The mortality was lowest on the first, a decided drop on the seventh, and slightly lower on the eighth day.

the average time that had elapsed between onset of symptoms and operation of those who lived and those who died.

TABLE 3.—*Delay—Mortality*

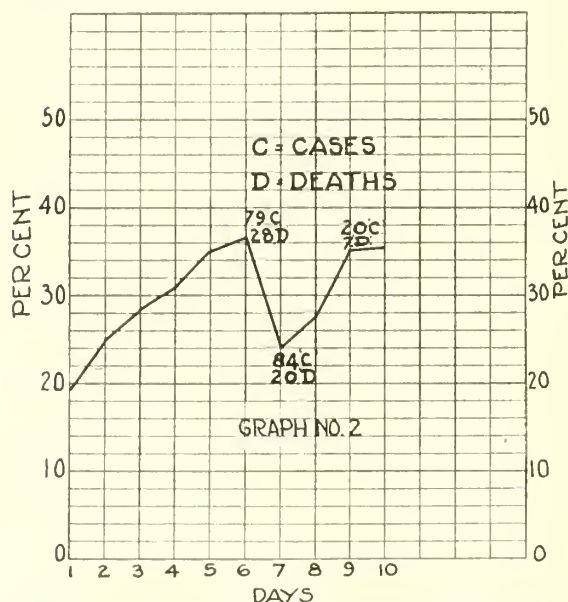
Year	Number Cases	Number Deaths	Mortality per cent	Average time—onset symptoms to operation	
				Recoveries, hours	Deaths, hours
1928-29 ..	5121	306	5.97	56.5	95.06
1930	3095	149	4.81	48.67	68.05
1931	3142	138	4.39	52.55	78.38
1932	3546	122	3.44	48.62	72.95
Total ..	14904	715	4.79	52.14	82.42

Table 4 shows the number that lived in each 24-hour group.

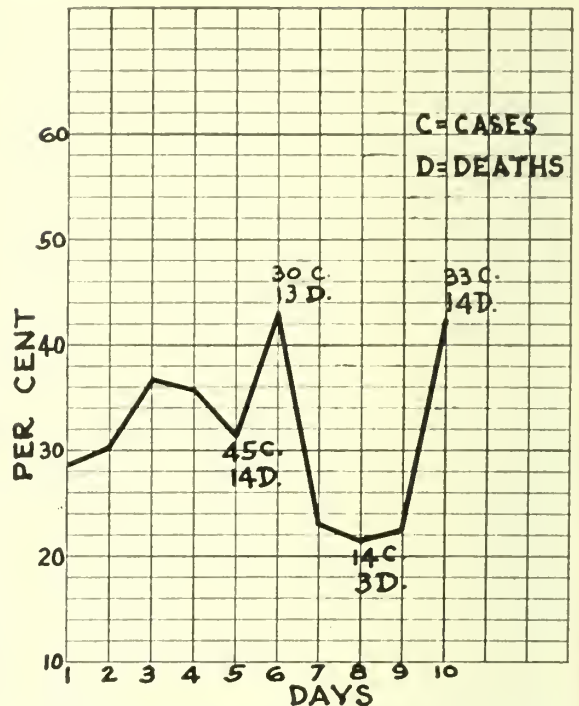
TABLE 4.—*Delay—Mortality*

	Lived		Deaths	
Admitted within 24 hours.	4660	96	1 in 49 died	
Admitted within 48 hours.	5120	249	1 in 21 died	
Admitted within 72 hours.	1963	131	1 in 16 died	
Admitted after 72 hours ..	2464	239	1 in 11 died	
Total	14207	715	1 in 21 died	

We attempted to explain the difference between the clean and peritonitis case. It is unfortunate that we cannot call the latter unclean, because physicians hesitate about using it to describe the most frequent complication of appendicitis. In this group of cases less than 5 per cent were diagnosed as having peritonitis before admission to the hospital yet 36.46 per cent of appendices had perforated.



GRAPH 2.—Mortality curve in 24-hour groups for 2118 cases of spreading peritonitis in the same 28 hospitals from 1928-1929 to 1932, inclusive. The seventh day has the lowest mortality percentage after the first day.



GRAPH 3.—For the period 1928 to 1929: Mortality of spreading peritonitis, 698 cases—24-hour groups.

TABLE 5.—*Mortality*

Year	Total Number Cases	Clean Cases, 63.6%			Peritonitis, 36.46%		
		Number Cases	Number Deaths	Per cent mortality	Number Cases	Number Deaths	Per cent mortality
1928-29 ..	5121	2921	12	0.41	2200	294	13.36
1930	3095	1998	4	0.70	1097	135	12.31
1931	3142	2033	8	0.39	1109	130	11.72
1932	3546	2517	16	0.64	1029	106	10.3
Total ..	14904	9469	40	0.42	5435	665	12.2
		1 in 240 died.			1 in 8 died.		

Patients have a right to know their chances of living. If they *delay* they should know how much that chance is diminished. In Philadelphia, in the past 5 years, of those that were admitted clean 1 in 240 died; if they were unclean, 1 in 8 died. We then told them why these patients became unclean—why they developed a peritonitis; *They took laxatives which increased the movements of the intestine and interfered with nature's attempt to insure localization of the infectious process.* We then project slides that showed the outcome of those that were not given laxatives.

TABLE 6.—*Laxatives Not Administered*

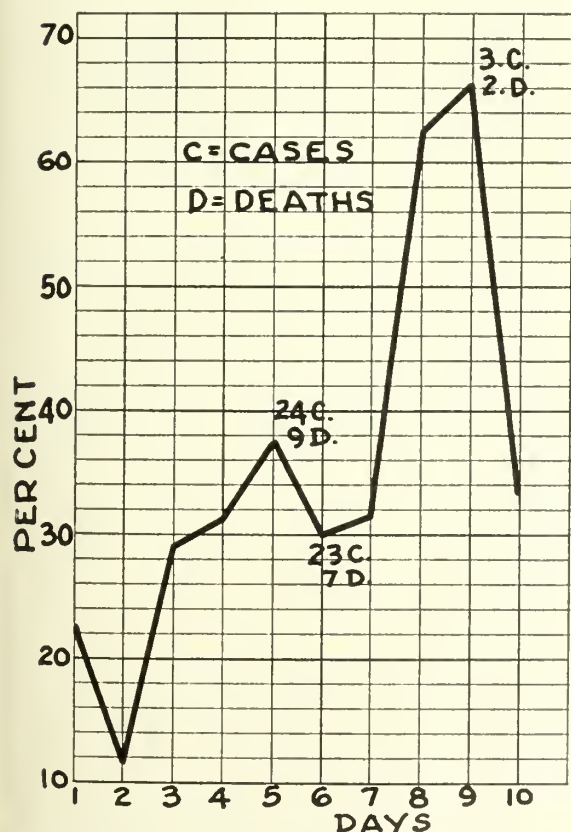
Year	Number cases	Number not given laxatives	Deaths	
1928-29 ...	5121	393	12	1 in 33 died
1930	3095	402	5	1 in 80 died
1931	3142	390	2	1 in 195 died
1932	3546	508	5	1 in 103 died
Total ..	14904	1693	24	1 in 72 died

A second slide to show mortality of those that had taken one laxative.

TABLE 7.—*One Laxative Administered*

Year	Number cases	Number given one laxative	Deaths	
1928-29	5121	1508	85	1 in 18 died
1930	3095	889	62	1 in 14 died
1931	3142	1015	57	1 in 18 died
1932	3546	987	43	1 in 23 died
Total ...	14904	4399	247	1 in 18 died

A third slide to show mortality of those that had taken more than one laxative.



GRAPH 4.—For the period 1930: Mortality of spreading peritonitis, 472 cases—24-hour groups.

TABLE 8.—*More than One Laxative Administered*

Year	Number cases	Number given more than one laxative	Deaths	
1928-29	5121	163	32	1 in 5 died
1930	3095	103	15	1 in 7 died
1931	3146	112	12	1 in 9 died
1932	3546	187	13	1 in 14 died
Total ...	14904	565	72	1 in 8 died

Table 9 shows the kind and number of laxatives used, with mortality.

TABLE 9.—*Laxatives Used*

Laxatives	1930		1931		1932	
	Recoveries	Deaths	Recoveries	Deaths	Recoveries	Deaths
Citrate of mag-nesia	168	10	170	12	135	8
Castor oil	140	21	167	7	125	8
Salts	93	10	168	4	160	10
Milk of magnesia	49	3	72	4	81	3
Ex lax	38	0	55	1	68	3
Mineral oil	14	0	14	0	20	0
Cascara	13	0	15	1	13	0
Sal hepatica ...	5	3	11	0	9	1
Allophen	8	0	9	0	4	0
Seidlitz	8	0	7	0	5	0
Calomel	7	0	1	0	5	0
Pluto	7	0	7	0	11	0
Feenamint	5	0	6	1	14	0
Syrup of figs ...	4	0	4	0	0	1
Castoria	3	0	5	1	1	0
Phenolax	2	0	1	0	5	0
Phosphate of soda	2	0	0	0	2	1
Agarol	0	0	2	0	15	0
Rhubarb	0	0	1	1	1	0
Miscellaneous ...	1	0	8	0	23	0
Multiple laxative	88	15	100	12	174	13
Kind not mentioned	260	15	235	25	247	8
Had no laxative	397	5	388	2	508	5
No history	1634	67	1558	67	1798	61
Total	2946	149	3004	138	3424	122

We also told them that 8 out of every 10 patients who die, die of a spreading peritonitis, that if a definite history of laxative administration has been obtained from those who succumbed to spreading peritonitis, 94 per cent would have been positive.

TABLE 10.—*Spreading Peritonitis—Laxatives*

Year	Number deaths	Definite history laxatives	Laxative positive	Per cent
1930	149	83	77	86.74
1931	138	71	69	97.18
1932	101	61	56	91.80
Total	388	215	202	93.95

LAXATIVES—MORTALITY

We are going to obtain permission if possible to show to the high school pupils motion pictures demonstrating the effect of various kinds of laxatives on peristalsis.

We must educate the public—with appendicitis our opportunity lies in informing the high school pupil. Almost every physician and every surgeon can recall the final moments of a handsome boy or girl whose death could have been prevented if his family had known of the poison that lurked in the bottle of citrate of magnesia, the dose of castor oil, or epsom salts, and numerous others. We have had and are still having efficient cancer publicity.

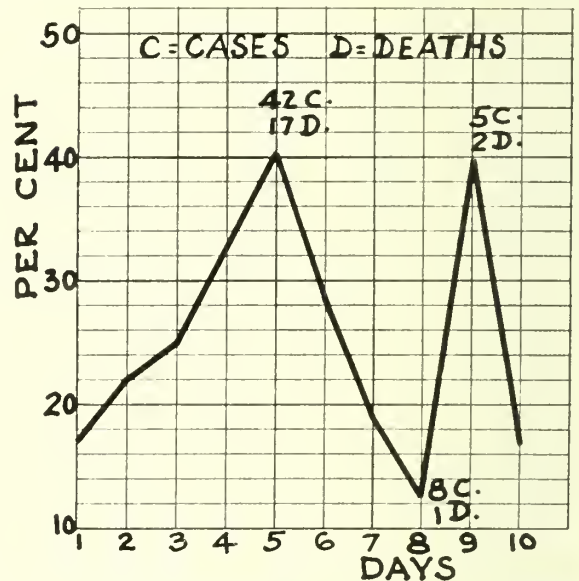
TABLE 11.—Appendicitis and Cancer Deaths

	Appendicitis	Cancer
Number deaths in the U. S. each year	20,000	128,181
Number deaths in Philadelphia, 1928 to 1932 ...	715	13,281
Number deaths in Philadelphia, 1928 to 1932, before 30 years of age	332	448
Average age of patients who died in Philadelphia, 1928 to 1932	31.8 yr.	58.1 yr.
Average age of 14,904 patients operated on in Philadelphia for acute appendicitis, 1928 to 1932	25.8 yr.	.....

Of those who died from cancer in Philadelphia in 1930, 1931, and 1932, the average age was 57.7 years, most of life's work was finished. Of those who died from appendicitis the average age was 30 years, they were in the prime of life; 448 died from cancer in Philadelphia before age of 30 in the 3 years mentioned. From what we know of cancer today we can rest assured that probably none or very few of these could have been saved before age 30 but every one, barring catastrophes, of those who died of appendicitis could have been saved. We spend huge sums for cancer publicity, why not spend some in warning the public of the dangers in delay and the administration of laxatives.

The time has arrived for doing something about it, the opportunity is at hand for The Medical Society of the State of Pennsylvania to establish a precedent by inaugurating a campaign of prophylactic surgery. We *must* do this, and it will be done, if not at this meeting it will be at some future one. This can be done with a consciousness that we are not Simon Pure—that we as a profession will benefit. It will interest you to know that in Philadelphia 51 physicians in 1932 prescribed laxatives in the presence of ab-

dominal pain and 4 patients died of spreading peritonitis following a ruptured appendix. The campaign against delay and laxatives may become a boomerang. For several years I have followed the mortality of a surgeon whose principal feeder was a medical man who always gave his patients laxatives when they had acute abdominal pain, the surgeon's mortality on the cases he operated upon for this physician was 45 to 50 per cent. The physician himself age 48, developed appendicitis, took a laxative, was operated upon 48 hours after onset of symptoms and died.



GRAPH 5.—For the period 1931: Mortality of spreading peritonitis, 491 cases—24-hour groups.

Table 12 shows the cause of death of patients operated upon the past 5 years. You will note that 81 per cent died of spreading peritonitis.

TABLE 12.—Total Number of Deaths

Year	Spreading Peritonitis	Local Peritonitis	Other Causes	Total Mortality
1928-29 ...	237	57	12	306
1930	124	11	14	149
1931	120	10	8	138
1932	101	5	16	122
Total ..	582	83	50	715
	81.4%	11.6%	7%	100%

Table 13 shows the total number of cases and deaths caused by spreading peritonitis. The actual proportion of cases of spreading peritonitis admitted each year is shown in terms of percentage. You will note that the average for the 5 years, 14.21 per cent, is within 2 per cent of the figure for each year. The last column shows the gradual reduction in the mortality due to the

improvement in management by the surgeons of Philadelphia.

TABLE 13.—*Spreading Peritonitis*

Year	Number cases	Per cent of cases admitted	Number of deaths	Per cent mortality
1928-29 ...	698	13.54	237	33.95
1930	472	15.25	124	26.25
1931	491	15.62	120	24.44
1932	457	12.89	101	22.1
Total ..	2118	14.21	582	27.47

While the surgeon had fewer cases of spreading peritonitis to manage in 1932, his mortality was lower in those he managed and the same is true of local peritonitis.

TABLE 14.—*Local Peritonitis*

Year	Number cases	Deaths	Per cent
1928-29	1502	57	3.79
1930	625	11	1.76
1931	618	10	1.62
1932	572	5	.87
Total	3317	83	2.50

Now we believe this improvement in the management of local and particularly spreading peritonitis is because the surgeons are becoming peritonitis conscious, and are approaching the fulminating case more deliberately. The mortality of spreading peritonitis is still too high.

In 1885, when Dr. Fitz of Boston, reported cases of appendicitis the mortality was 26 per cent, all these had peritonitis. The high mortality as it directly concerns the surgeon is due to a lack of knowledge of what is going on in the abdomen before the patient is operated upon. Spreading peritonitis is not diagnosed frequently enough before operation. Every surgeon knows that this is not always possible and it is for this reason that the following is presented: Surgical services in our hospitals, as they pertain to acute appendicitis, be modified to the extent that the junior members of the surgical group manage the clean cases but that a consultation be held with the chief of service regarding the management of the perforative or suspected perforative case. Neither a watchful waiting nor a drastic policy is advocated but a request that the 12 or 15 per cent of patients admitted to our hospitals with spreading peritonitis who have only 1 chance in 4 of living be given the benefit of all that the service affords in the matter of surgical judgment and experience.

Wisdom in surgery usually increases with experience but not always, the clinical records re-

viewed show that a man may spend decades managing spreading peritonitis and still have a mortality of 66 $\frac{2}{3}$ per cent. *The associate on the surgical service should concentrate on the pre-operative diagnosis of spreading peritonitis, his chief should concentrate on management and be willing to pass along to his associates the knowledge he has gained in the managing.*

In a city of nearly two million population, 14,902 patients were admitted to 28 hospitals, 2118 developed spreading peritonitis, and 582 died. The graphs presented show the mortality curve from the first to the tenth day, inclusive. The graphs of the cases—1661 in number—managed between 1928 and 1931 were shown at the meeting of the American College of Surgeons last year. Prior to this the entire group was reviewed carefully. The 457 cases from the 1932 group were also scrutinized carefully.

2008 Walnut Street.

ABSTRACT OF DISCUSSION

DONALD GUTHRIE (Sayre, Pa.): The profession of Philadelphia, under the leadership of Dr. Bower, has done splendid educational work. The reported statistics presented today prove the effectiveness of the Philadelphia campaign to reduce the frightful and wholly needless present-day mortality of appendicitis, and it is my hope that the House of Delegates will adopt the resolution presented to have this campaign, warning the laity of the dangers of purgation in the presence of an illness attended by abdominal pain, become State-wide. The fact that Philadelphia's death rate for appendicitis has steadily fallen and that it is at present the lowest death rate reported in the larger cities is positive proof of this effective work.

The subject of appendicitis has unfortunately become a closed one; it has been pigeonholed as a settled topic, in spite of this frightful mortality. The profession has become more interested in the more unusual types of illness which are by no means attended by the same mortality and which are encountered far less frequently.

I made a plea before the Section on Medicine of the American Medical Association at its meeting in New Orleans that the whole subject of appendicitis be reopened and thrown into open forum so that the profession would have no embarrassment about discussing this subject which is far from closed, far from settled, but very much alive and very vital.

We were appendicitis-conscious in former days when the surgical giants of the day almost came to blows at stirring sessions of the American Medical Association, but as the result of those discussions the subject of appendicitis was foremost in the mind of the profession at that time and the mortality was far lower than it is today.

While much of the present mortality may be charged to the laymen because of self-administered purgation and delay, some of it may be charged to our profession. Let us be sure that in the presence of abdominal pain appendicitis be considered first as the probable cause of the pain instead of the last; let us be sure that we, too, withhold laxatives, and also let us be sure that we choose the proper time and the proper operation for the case of appendicitis complicated by rupture of the ap-

pendix. This last question can be decided only by the experienced surgeon; not by the occasional operator.

The present-day mortality of appendicitis may be considered among the real tragedies for so much of it might be prevented.

THEODORE B. APPEL (Lancaster, Pa.): Speaking purely from the public health standpoint, I endorse what Dr. Guthrie has said in regard to the importance of having the profession take some action in this preventable condition of affairs, because that is the aspect in which public health officers are deeply interested. There is no question that appendicitis, so far as mortality is concerned, is definitely increasing, and, as Dr. Bower's paper shows, much of the mortality can be prevented.

I should like to call attention to certain of these statistics which need to be corrected. These statistics are taken either from hospital reports or from the reports of the Bureau of Vital Statistics at Harrisburg, in which we are not able to get the real condition of affairs. Two conditions are responsible for this. In the first place, under the international code of the causes of death appendicitis in the official report does not always take into consideration the presence of other disease. For instance, a woman is operated upon for gallbladder disease and the appendix is also removed; should death occur, appendicitis is very likely to appear on the record as the cause of death. If that were corrected it would lower the mortality to a certain extent. Formerly the statistics were not nearly so accurate as they are now. We do not receive as many certificates of death from peritonitis as we did. About 62 per cent of deaths really are caused by appendicitis. We are getting better reports.

In regard to comparison of statistics, under the unsatisfactory system now in vogue, the death must be recorded in the place at which it occurs. In some cities, for instance, Coatesville or Easton, the large hospital is outside the city limits, and these deaths are recorded in the township in which the hospital is located; if the deaths of residents of these cities were recorded as occurring in the cities, the statistics would be more accurate. For instance, Coatesville reports no deaths from appendicitis, whereas there were 20 residents of Coatesville who died in the hospital outside the city limits. Pottsville reports no deaths, but yet 29.4 per cent of the deaths from appendicitis in the local hospital were Pottsville people. City statistics include nonresidents as well; and while there is an improvement in the reports they are not really filled out as they should be. In addition, some cities cull out all the nonresidents; others do not. There is a very definite increase in the number of persons in Pennsylvania who are dying from appendicitis each year. In 1906, there were 658 cases, which could be corrected to about 800 out of a population of 7 millions. In 1932, there were 1163 cases out of a 10 million population, which is a very definite increase.

There is only one way to improve the situation, that is by education of the people—really two ways, the other being to a certain extent the education of the profession, because many of these cases do not come into the hands of the surgeon soon enough.

I should like to state that so far as the Pennsylvania State Department of Public Health is concerned, anything that can be done, in helping in any campaign the profession may decide to put on to prevent deaths from appendicitis, will gladly be done.

CARDIAC ASTHMA*†

Clinical Considerations Based on a Study of Twenty-one Cases

LEO H. CRIEP, M.D., PITTSBURGH

With the possible exception of angina pectoris, few conditions are more dramatic than cardiac asthma. The physician is called hurriedly in the middle of the night to minister to a middle-aged or elderly male whom he may have treated previously for heart disease. The patient had gone to bed feeling well, but was awakened suddenly out of a sound sleep by a sense of suffocation and oppression. He is found sitting in a chair or on the edge of the bed, gasping, and struggling for air. His face is ashen gray, his eyes bloodshot, and his expression that of fear and distress. Examination shows the skin to be cold and clammy. The breathing is asthmatic, rapid, labored, and wheezy. Expiration is prolonged and accompanied by loud, piping, musical râles. The heart is enlarged, the rate is high,

and the blood pressure is usually found to be increased.

Recognition of this clinical picture as an asthmatic syndrome is not difficult, but differential diagnosis is frequently puzzling. Such diagnostic confusion as may exist between cardiac and bronchial asthma may be obviated by the fact that the patient with cardiac asthma is usually past middle-age; that he does not give an allergic family history; that his blood count shows no eosinophilia; and finally, that he presents evidence of cardiac damage such as hypertension, arteriosclerosis, aortic disease, or coronary involvement.

Since medical literature contains several excellent statistical surveys of the subject under consideration, the present paper will limit itself to a more general analysis based on a clinical study of 21 cases of cardiac asthma. The average age of the group is 49. There are 17 males and 4 females. Fifteen patients, or 70 per cent, have hypertension; 5 patients, or 24 per cent,

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have coronary thrombosis; 4 patients, or 20 per cent, have aortic endocarditis; 4 patients, or 20 per cent, have aortitis; 3 patients, or 15 per cent, have syphilis; one patient has rheumatic mitral disease with auricular fibrillation; and one has pulsus alternans; 14 patients, or 68 per cent, show electrocardiographic evidence of myocardial involvement; all patients show some signs of arteriosclerosis and roentgenographic evidence of cardiac enlargement.

Analysis of the clinical data presented by this group reveals the following additional information: The duration of an attack varies from 15 minutes to 4 hours. The average length of life is only 14 months from the date of onset of the first attack. The prognosis is considerably worse in those cases presenting evidence of syphilis, pulsus alternans, or coronary thrombosis. Five patients, or 24 per cent, give a history of attacks of angina pectoris occurring interchangeably with the attacks of cardiac asthma. The 2 syndromes occurred simultaneously in but one patient. Eight patients, or 38 per cent, have had such ominous warnings as attacks of mild nocturnal nervousness, dyspnea, and palpitation. It is our belief that the latter represent an early stage in the development of cardiac asthma.

The clinical phenomena of cardiac asthma require explanation. Of the many theories offered, the following seems the most acceptable in view of the present state of knowledge: In bronchial asthma, difficulty in breathing is due to edema of the bronchial mucous membrane, and not to circulatory failure. On the other hand, in cardiac asthma it is due to heart failure, particularly failure of the left ventricle. The left ventricle fails either because it is not sufficiently strong to pump efficiently against the increased peripheral resistance of hypertension, or because the myocardium receives an inadequate blood supply through its narrowed coronaries. The lumen of these vessels may be narrowed as a result of aortitis, spasm, sclerosis, or thrombosis. Failure of the left ventricle leads to a decreased aortic (systemic) cardiac output, so that anoxemia of the respiratory and neighboring vital centers is produced. Irritation of the respiratory center gives rise to labored and embarrassed breathing, which wakes the patient. Irritation of the vagus center produces bronchospasm, thus adding to his discomfort. Because the left ventricle does not empty efficiently, it can not accommodate the blood from the left auricle. Retrograde stasis and pulmonary hypertension naturally follow. If, as a result of treatment, the left ventricle recovers, or if the increased respiratory rate succeeds in producing the necessary amount of hyperventilation, the central anoxemia is relieved

and the patient gets better. Otherwise, the condition progresses to pulmonary edema and a fatal termination.

In all but 4 of the 21 patients here reported, the attacks came on at night. The nocturnal occurrence is thought to be due to the tendency of patients to slip down in bed from the orthopneic position, thus increasing the venous return to the heart; another explanation is that the blood pressure falls during sleep and becomes too low to maintain an efficient coronary circulation.

The aim of treatment is: (1) To reduce the irritability of the vital centers and (2) to improve cardiac function. The first is achieved by the use of morphine. Because this drug depresses the vital centers, its beneficial effect is, as a rule, prompt and, therefore, dramatic. Since morphine abolishes the cough reflex, and since the vital centers play no rôle in the production of bronchial asthma, such results are usually not obtained from its use in this condition. Indeed, in many instances morphine tends only to make these patients more uncomfortable.

The second purpose of treatment, namely, that of reducing heart failure, is brought about by such measures as will retard the return flow of blood to the right heart, slow the heart rate, and improve the coronary circulation. The patient instinctively sits up, because the sitting posture compresses the abdominal veins and retards the return flow from the abdomen and the extremities. The same effect can be obtained by the intermittent application of constriction to the 4 extremities for a period of 20 minutes. Such constriction is secured by means of bandages, or by means of 4 sphygmomanometer cuffs connected in series. The optimum pressure is slightly above the diastolic reading.

In acute emergencies, particularly if fibrillation and congestive heart failure are present, digitalis is given intravenously. Nitrites given subcutaneously or under the tongue may be of value because they produce peripheral and perhaps coronary dilatation as well. Such measures are of no avail in bronchial asthma because heart failure plays no rôle in its production. On the other hand, adrenalin, a drug which so effectively relieves bronchial asthma, is rarely valuable in cardiac asthma. The reason is not difficult to comprehend. Wheezy and labored breathing in bronchial asthma is, in all likelihood, the result of swelling of the bronchial mucous membrane in response to allergic irritation. Adrenalin, through its vasoconstrictor action, relieves this edema, enabling the patient to breathe more easily. Its use in cardiac asthma is not only of doubtful value, but is frequently contraindicated,

for fatalities induced in this manner are not entirely unknown.

A brief historical reference may be of interest in this connection. The word "asthma" comes from a Greek word meaning "panting" or labored breathing, and is used in that sense in Homer's *Iliad* as well as in the Hippocratic writings. It was used by Von Helmont, in 1650, to denote the clinical condition of bronchial asthma. About 200 years later (1833), a British physician by the name of Hope recognized the same clinical picture in association with heart disease, and therefore coined the very descriptive term "cardiac asthma." In spite of the fact that this term is deeply entrenched in medical language, a persistent effort is made to change it to "acute paroxysmal dyspnea." An interesting aspect of this attempt is the polemic carried on between Sir James Mackenzie, a defender of the term, and Sir Clifford Allbutt and his followers. The

latter objected to cardiac asthma as "a glib use of a loose phrase." To these objectors Mackenzie replied as follows: "I have had the opportunity of studying the condition during attacks in ordinary asthma and in cardiac asthma, and I could detect no dissimilarity. Thus, the patients' sensations, their aspect, their attitude, the manner of breathing, the onset and offset of the attack, and the response to remedies were identical . . . Sir Clifford Allbutt put forward the suggestion that it is possible that he may never have seen such cases, and I am inclined to think that this is probably the reason why he disapproves of the term cardiac asthma."

This paper is presented in an attempt to contribute to the clarification of a subject which frequently comes up for consideration not only at the bedside but also in every allergic and cardiac clinic.

May Building.

CARDIAC PATIENTS AS SURGICAL RISKS*

ALEXANDER H. COLWELL, M.D., PITTSBURGH

The presence of cardiac disease in a patient facing operation is always a reason for apprehension. Investigation of the records of the opinions of other observers and review of one's own experience, however, reveal there is much less cause for anxiety than one might, at first, suppose. It is certain many cardiac patients will endure anesthesia and operation as well as those without such handicaps. This is especially true of those having rheumatic types of heart disease. Since they constitute by far the largest proportion of cardiac cases apt to require operation, one may venture the rather categorical statement that cardiac disease of itself is seldom an absolute contraindication to anesthesia and surgical treatment.

In consideration of this subject one may adopt a simple classification of the types of cardiac disease which may be present in patients requiring operation; first, the chronic rheumatic type; second, the arteriosclerotic type; third, coronary occlusion or incompetence due either to infection or arteriosclerosis; and fourth, chronic myocardial intoxication or fatigue caused chiefly by systemic or focal infections, disorders of the thyroid gland, cholecystitis of long standing, fibroid disease of the uterus, *etc.*

In evaluating subjective cardiac symptoms, it is necessary to remember they often express only functional disorders of the heart, or they may be

so marked in contrast with the signs of organic disease as to have the same implication. On the other hand, objective evidences of impaired heart muscle function are of very great importance even though the patient has little subjective appreciation of them. The urgency of the need of operation, the types of anesthetic available, and the experience and ability of the anesthetist, are also important factors in determining judgments of surgical risk in cardiac patients.

CHRONIC RHEUMATIC HEART DISEASE

A wide variety of operations may be required by patients with chronic rheumatic heart disease. This disease is most common in adolescence and early adult life, the period of most emergency and elective operations; and, in the female, of pregnancy and parturition. Tonsillectomies, sinus operations, difficult dental extractions, appendectomies, cholecystectomies, salpingectomies, perineal repairs, cesarean sections, *etc.*, are common operations often performed during this period. One may repeat the statement of others that well compensated rheumatic heart disease is not a contraindication to operation and usually does not limit the choice of anesthetic. Should time permit, these patients are benefited by a rest in bed before the operation, and also by the use of fairly large doses of sedative medication prior to the administration of the anesthetic. This is believed to diminish heart work during and after operation, since irritability of the heart so fre-

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quently is associated with this type of heart disease. The chronic rheumatic cardiac patient who either is in a state of decompensation at the time an operation must be performed, or who gives a history of having passed through such states is probably a much less desperate surgical risk than we tend to believe. When possible the preparation for his anesthesia and operation should be much longer than that employed in well compensated cases. He should, also, be well digitalized before operation, both in order to increase the efficiency of his heart and to limit, if possible, its response to the various operative and postoperative stimuli which may tend to increase its rate. This medication is especially necessary if, as is probable, the heart is fibrillating. Preoperative digitalization should be employed in the presence of cardiac decompensation of either rheumatic or arteriosclerotic origin. Its routine use in all cardiac patients is condemned by some whose opinions are entitled to respect.

The two commonest disorders of rhythm seen in rheumatic heart disease are premature contractions and auricular fibrillation. If either is present in a surgical patient it is prone to increase the concern of the surgeon. The first of itself need never be considered a contraindication to surgical treatment and the second almost never. In fact, auricular fibrillation in a patient whose heart is perfectly compensated may be disregarded, except for preoperative digitalization when time permits. Less frequent disturbances of cardiac mechanism met with in this type of patient are paroxysmal tachycardia and auricular flutter. The first condition is uncommon. It must be a very rare circumstance indeed when need for an imperative operation coincides with an attack of paroxysmal tachycardia. Should such a contingency exist, it does not constitute a serious objection to anesthesia and operation, though it may definitely increase the surgical risk if the paroxysm persists long. Auricular flutter, really very rare, demands preoperative digitalization, just as auricular fibrillation does.

In general, chronic rheumatic types of heart disease, even those with history of previous decompensation, are not insurmountable obstacles to the performance of many elective operations and should never prevent an imperative operation.

ARTERIOSCLEROTIC TYPES OF CARDIAC DISEASE

Since the arteriosclerotic types of cardiac disease are, by virtue of their etiology, most frequently met with in older patients and, since their presence presupposes a more or less widespread interference with the capacity of the

whole circulatory system, they constitute a more serious problem in surgical treatment. Fortunately, as the age of the patient advances the probability of the necessity for operation decreases. The operations performed on patients belonging to this group are usually more or less imperative. Thus one is sustained by the consolation that one has no choice, but that operation must be done in an attempt to save the patient's life, or to render a miserable existence more tolerable. These operations are apt to include the imperative prostatectomies, operation for the removal or relief of carcinoma, for the repair of strangulated hernia, for the amputation of gangrenous parts of the extremities, *etc.* Frequently the coexistence of hypertension is a disturbing factor and definitely influences surgical risk, especially if the anesthetic used causes marked fall of blood pressure. When the surgeon requests the counsel of the internist in such problems he is apt to be disappointed. The internist knows better than any other how feeble is his power to estimate the reserve capacity of the arteriosclerotic heart. Nevertheless, this type of patient especially is entitled to a careful physical examination before anesthesia and operation. However imperfect, this is the best method of avoidance of surgical disaster available to us for these patients at the present time. Whenever possible, they should be given preoperative rest in bed. Digitalization of such patients, except in the relatively rare instances of congestive heart failure referred to, is probably useless.

CORONARY OCCLUSION

Increasing experience with coronary occlusion reveals a constantly widening age range in which this condition may occur. It may produce no appreciable damage to the functional capacity of the heart. Nevertheless, if an attack has occurred and subsequent operation becomes necessary there seems ample reason for anxiety. Because of the marked resemblance between the symptoms of this disease and those of biliary colic, it is very important that the surgeon be as familiar with the one as with the other. Reference to this subject at this point may be something of a digression from the general subject. Yet, the fact remains that some, and perhaps many cases of acute coronary disease have been subject to unnecessary upper abdominal exploratory operations. That the results may be disastrous is to be expected. Acute coronary disease is, of itself, a contraindication to operation. If patients have recovered from this condition and subsequently require surgical treatment they are entitled to the most careful preoperative survey possible, and a very judi-

cious choice of anesthetic. Only imperative operations should be attempted on them.

At times anesthesia must be induced and operations performed on patients who have been the subject of prolonged suppurative infections. The hearts of such patients may be assumed to be the sites of toxic myocarditis. Unfortunately, it seems almost as impossible to determine how much cardiac reserve remains to these as it does in arteriosclerotic types of heart disease. There usually is entire absence of signs of congestive heart failure. Yet one feels such patients are very poor operative risks and one has the impression that sudden death under anesthesia is to be feared. The combination of a skillful and swift surgeon, an expert anesthetist, and the choice of the least shocking anesthetic, is desired in order to reduce surgical risk to the lowest attainable minimum.

Since the operative treatment of chronic thyroid disease is such a common procedure one is impelled to refer to the thyroid heart in any consideration of surgical risk in cardiac patients. A wise course for most physicians to follow is to defer to the judgment of the surgeon both as to the time of operation and the type of anesthetic. The reason is that the clinical experience of the surgeon with these patients being greater than that of the individual physician, his estimate of the surgical hazard tends to be more accurate.

The association of chronic cholecystitis, fibroid disease of the uterus, and some other conditions with heart muscle fatigue has been known for a long time. For this knowledge we are chiefly indebted to the surgeon. It seems fair to assume that the heart muscle in these patients may be as soft and flabby and in as poor tone as their skeletal muscles. There is no technical word to describe this condition of the heart. It has no very definite pathologic picture. Yet experienced surgeons are constantly alert to the possibility of postoperative cardiac failure in these conditions. They desire for these patients a long preoperative rest in bed, believing by this means surgical risk is greatly reduced and convalescence appreciably shortened. As in thyroid disease, and for the same reason, the surgeon's judgment should prevail in operative problems involving the fatigued heart.

Alternation of the pulse is a sign of profound heart muscle exhaustion. It may be found in patients whose consciousness of reduced cardiac power is relatively slight. It is fairly frequent in the arteriosclerotic type and is especially associated with hypertension. Its presence is most certainly detected in determining blood pressure by the auscultatory method. At or near the

systolic level one observes the tones alternately loud and weak or that a sound is heard only with each alternate beat of the heart, though the heart rhythm is normal.

If present, this sign should delay or prevent elective operations. It indicates a surgical risk so great as to be justified only by imperative need for operation.

The heart is very responsive to the stimulation incident to pain. The discomfort and shock immediately following operation should be considered as constituting part of the surgical risk. This risk, in cardiac patients, will be definitely diminished by the liberal use of morphine. Should the patient be intolerant to morphine, some other sedative or analgesic should be employed.

ANESTHETIC AS A PART OF SURGICAL RISK

A reference should be made to the selection of an anesthetic, yet on this subject the writer cannot speak with authority. He has certain impressions and some beliefs for which he is probably entirely dependent on the opinions of others. One is, there is almost no reason for the use of chloroform as an anesthetic. Ether is the safest of all inhalation anesthetics. Nitrous oxide is an unfavorable anesthetic for patients with heart disease who have had periods of decompensation, and spinal anesthesia is especially dangerous in patients with marked hypertension. Though my experience with tribromethanol has been limited, it has proved eminently satisfactory. It is the ideal anesthetic for nearly all purposes, although Sollman states that its fatalities approach rather closely those of chloroform. Wherever possible in any type of decompensated cardiac case regional anesthesia should be used for all or as much of the operation as can be so performed.

The records of the coroner of Allegheny County from the years 1926 to 1932, inclusive, were consulted. These reveal 28 deaths under anesthesia in this 7-year period. In 4 deaths, chloroform was the only anesthetic used; in 9, ether alone; and in 5, nitrous oxide-oxygen alone. In 4 deaths, the latter 2 anesthetics had been combined. Two deaths occurred during the use of ethyl chloride and ether; 2 under spinal anesthesia, and with the local use of novocain; and in one death, the anesthetic used was not stated. In the 28 cases some reference is made to the circulatory system in 11. In 7 of these 11 cases, the reference is exceedingly vague, being contained in such statements as: "History of cardiac disease; cardiac impairment; circulatory, myocardial, or cardiac failure." In one case, acute dilatation of the heart and chronic myocarditis

is mentioned; in 2, myocarditis; and in one, arrhythmia.

There is no available record of the number of operations performed and anesthetics given in Allegheny County during this period. In such a large population area it may be assumed that there were very many. Of the 11 deaths under anesthesia in which some reference is made to the circulatory system, only 3 give a definite cardiac diagnosis. All these include the rather uncertain diagnosis of myocarditis. It may be noted that there is not a single reference to rheumatic heart disease, though in one case not included among the 11, because no reference is made to cardiac failure, it was stated acute rheumatic fever existed at the time of operation. It should also be noted that arrhythmia is referred to only once. Statistics tend to show cardiac disease is seldom the cause of death during operation.

One may propose certain general principles which might be adopted to reduce surgical risk in cardiac patients, or to dispel unnecessary fear of such risks. General agreement with these principles is scarcely to be expected. Yet it is expedient to attempt to crystallize one's opinion of the moment if for no other reason than to allow the expression of contrary views. In this belief the following statements are made:

(a) Rheumatic types of heart disease not associated with subjective or objective signs of impaired heart function do not add to surgical risk. In cases of this type, having a history of decompensation, most elective and all imperative operations may be performed with relative safety, though preoperative rest in bed and digitalization, especially if fibrillation is present, should be insisted on to reduce the cardiac operative risk to a minimum. In the presence of actual decompensation only imperative operations should be attempted, digitalization being accomplished as rapidly as possible before operation or immediately following it. In all these cases adjunct sedative medication and the very liberal use of morphine are believed to diminish surgical risk.

(b) Arteriosclerotic types of cardiac disease are associated with a greater degree of surgical risk than are the rheumatic and the cardiac reserve is more difficult to estimate. Surgical risk increases roughly in proportion to the elevation of blood pressure above the average. In the presence of marked hypertension the risk is still further increased by the use of anesthetics which cause a marked fall in blood pressure. Unless decompensation is present, digitalis is thought by many to be of no value.

(c) Acute coronary thrombosis contraindi-

cates operation. The possibility of this condition should be in mind in consideration of all patients with symptoms suggesting acute biliary colic.

(d) Disorders of cardiac mechanism, as a rule, do not of themselves contraindicate operation and may not greatly increase surgical risk. It should be recognized that they are often only signs of extensive cardiac damage or intoxication.

(e) Alternation of the pulse, a sign of marked myocardial fatigue, indicates a greatly increased surgical risk. In its presence only imperative operations should be performed. The anesthetic should be regional if at all possible, or for at least as much of the operation as can be thus performed. Postoperative risk is great and morphine should be used liberally.

(f) The chronically intoxicated heart requires long preoperative rest if possible. These hearts rarely are in a state of decompensation and digitalis is believed to be useless.

(g) The cardiac surgical risk in thyroid disease is probably less than the usual tumultuous and disordered action of such hearts makes us fear. The surgeon's estimate of the capacity of thyroid hearts to sustain operation is better than the internist's.

(h) Surgical risk in cardiac patients is probably best minimized by the effective coöperation of the surgeon and internist.

121 University Place.

ABSTRACT OF DISCUSSION

ALBERT E. ROUSSEL (Philadelphia): I wish to confine my remarks to the very difficult problem in cardiac diagnosis—the myocardial changes which are almost inevitably present in long continued hemorrhage from fibroid of the uterus or other similar conditions. In this particular instance there has been no previous hypertrophy of the heart, there has been no left ventricular preponderance, and the orthodiagram shows no marked defect either in size or contour of the organ; and yet certain clinical indications are present which are of importance, notably the loss of tone of the first sound, a diminution in volume, a shortening in duration, and an increase in pitch which is not brought out or increased by muscular exercise. These points can be amply demonstrated in clinical work and all suspicious cases can be further reinforced by electrocardiographic examinations. If fibrillation can be made out clinically and confirmed by the electrocardiograph, it is necessary that the patient be treated advisedly. You know certain conditions exist, but even so the myocardial changes, the little variation in size and contour of the heart, are sometimes overlooked, not only in the operative cases but in general clinical work. Those are the cases which so often are the cause of sudden death; those are the cases which are so often attributed to acute indigestion or rather consequent anginal symptoms.

In the Graduate Hospital of the University of Pennsylvania, and in other hospitals with which I have been connected of late years, no operative case is left to the examination of the surgeon alone. In all instances the

internist is called on to decide as regards the necessity for precaution and in some cases the postponement of the operation. We have seen deaths occur shortly after operation, especially in these fibroid cases, bleeding cases with resulting brown atrophy. In the confirmatory work, to quiet the apprehension of the operation together with the existing nervous conditions at least two weeks previous to operation, the patient should be given good rest at night. Digitalization is of extreme importance. Another thing of importance, which has a particular bearing on this case, is the blood chemistry, which is of value in making the prognosis. The operation should not be performed until the internist has given an opinion.

CHARLES P. NOBLE (Radnor, Pa.): I wish to speak from the point of view of the surgeon.

These responsibilities first came to me early in 1890, when the finer details of cardiology as we have heard them today were not known, especially in heart disease in its early stages. It was evident to me as a surgeon that it would be impossible with my responsibilities, to acquire the skill that even the heart specialists of that day had, so I was obliged to look at the subject in a more practical way. It soon became evident that patients with heart trouble, no matter what the heart sounds, or what the particular diagnosis might be, if they could perform their usual duties, if they could go up and down stairs without embarrassment, and if they

had no edema, were safe surgical risks. There were no fatalities with that simple rule as a guide to operation.

Years later, after MacKenzie had done his masterful work upon the heart, it was interesting to reflect that we had employed his "work test" in estimating the state of the heart, for many years before he became the world's leading cardiologist.

Some other things are important. Dr. Colwell has pointed out the importance of rest. There is no doubt that it is valuable before operation. Another thing which was not called attention to is the importance of elimination for some time before an operation. Many of these patients are toxic, many have had chronic constipation, and are better for routine elimination and a careful, simple, nutritious diet before operation.

As to the relation between heart involvement and fibroid tumor, it was my rule, if the patients could go about their ordinary duties, could go up and down stairs without special difficulty, and had no edema, they were proper cases for operation.

Elimination, cleaning out the primæ viæ, is especially important in patients having fibroid tumors, who are feeble, and who give a history of coprostasis. The tumor, not uncommonly, through pressure, interferes with bowel function, and promotes copremia with ultimate degeneration of the blood vessels and the heart muscle. Systematic elimination, prolonged rest in bed, and a nutritious, easily digested diet, will greatly improve the prognosis in operations upon such patients.

LABORATORY FINDINGS IN ANEMIA IN CHILDREN*†

MAUD L. MENTEN, M.D., PITTSBURGH

Blood, both in adults and children, has a long development, and maturation history in the bone marrow and only the end products of that process appear in the circulation. The red blood cell develops from the endothelial lining of the capillaries of the bone marrow and normally passes successively through erythroblastic and normoblastic stages to the nonnucleated form. The early developmental forms appear only if disturbances in the normal process arise. These early forms include normoblasts, erythroblasts, basophilic cytoplasm, stippled cells, reticulocytes, and, under certain extreme conditions, megaloblasts. Variations in the size and shape of the cell may be associated with the appearance of premature cells. During the first weeks of life the diameter of the erythrocyte tends to be higher than it is later. Blood in children has certain unique features because of physiologic peculiarities. The high hemoglobin values, reaching 140 or 150 per cent, and red count occurring at birth and the preceding 10 or 12 weeks are the result of the anoxemia arising from the somewhat slow diffusion of oxygen through the placenta. The altered oxygen tension from rapid ventilation

through the lungs at birth causes hemolysis, rapid fall in hemoglobin, and apparently retardation of cell formation. Other peculiarities of the infant's hematopoietic system are the wider distribution of erythropoietic tissue in the bone marrow leaving little reserve fatty marrow, and the storage of reserve iron in the fetal liver for hemoglobin production in the first weeks of life. Disturbances in these various factors readily give rise to anemic conditions. In order to evaluate the degree of anemia it is necessary to have a standard for the hemoglobin values at various ages in infancy and childhood. Only 3 such standards are available. Williamson, Mackay, and Elvehjem, Peterson, and Mendenhall have made studies on the hemoglobin values during different periods of childhood but their results vary considerably. Such studies do, however, give a basis for comparing frequency and degree of anemia. We have tabulated all the blood examinations made during the past 3½ years in the Children's Hospital. All patients, except those admitted for tonsillectomy, have complete blood counts made on entrance. Of the blood examinations tabulated, those for 1930 and 1931 have been analyzed. A survey can thus be gained of the frequencies of the various hemoglobin values in the hospital children for

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these 2 years. Values below 70 per cent were in the majority during the first 3 years, with a gradual increase in those above 70 per cent in the older children (fig. 1). When these results were plotted in percentages it was observed that

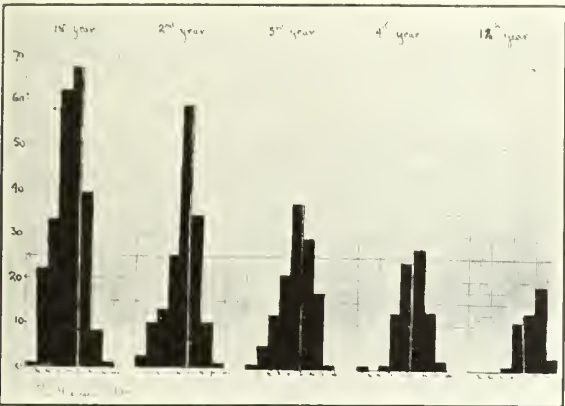


Fig. 1.—Comparison of frequencies of hemoglobin values in different years. Ordinate represents number of cases.

the most severe anemias occurred in the second year. This is partly due to the occurrence of erythroblastic anemias at that period but also to those nutritional anemias which either do not respond to treatment in the first year or else do not reach medical attention until the second year.

When one further analyzes the values obtained in the first year the striking feature is the high percentage of cases with low hemoglobin in the third and in the sixth month with a rise in the intervening fourth and fifth month (fig. 2). The contour of the curve obtained is similar to those reported by Mackay for breast and artificially fed infants, but occupies a lower level throughout than either of these. Elvehjem observed a minimum value in both the second and

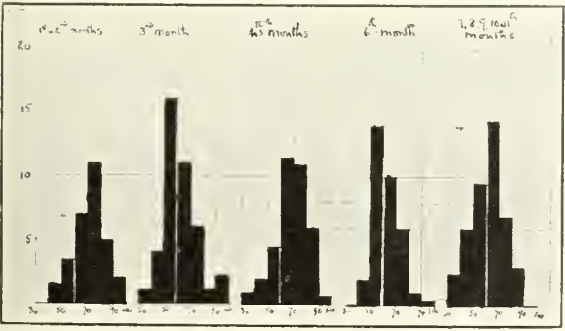


Fig. 2.—Comparison of frequency of hemoglobin values in different months of the first year. Ordinate represents number of cases.

third month, followed by a rise which was again succeeded by a fall about the sixth month. If one compares the average hemoglobin values for the months of the first year in our hospital cases with those reported by Mackay and Elvehjem it is seen that of the 4 curves represented, the hos-

pital cases occupy the lowest level. Successively above this curve lie Mackay's artificially fed and breast fed infants, while the Elvehjem curve occupies the uppermost position (fig. 3). The measurement of the latter in grams makes exact comparison with Mackay's results difficult. A standard for hemoglobin estimation is urgently needed in order that the findings of various investigators can be correlated. The contour of all 4 are similar but the fall of hemoglobin in the third and sixth months is most marked in the hospital cases. Williamson's high hemoglobin values which exceed those of Elvehjem by 10 per cent have been ascribed in part to the method used and are not included in the present comparison.

Gradual exhaustion of the hepatic iron stored during intra-uterine life is evidenced by decreas-

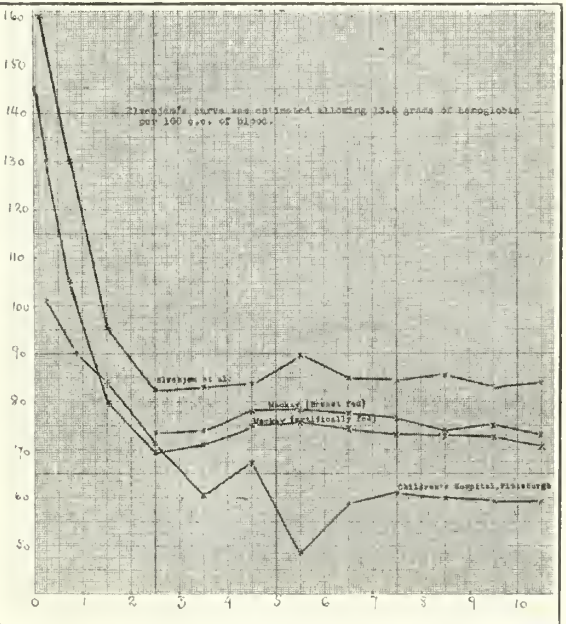


Fig. 3.—Percentage of hemoglobin values in children from birth to ten years. Abscissa represents years.

ing hemoglobin values which reach a minimum at the second or third month. This deficiency is most marked in premature infants and in twins. The cause of the second fall in hemoglobin at the sixth month is probably nutritional although in Mackay's cases this lower value was absent in infants given adequate iron during the first week of life.

In certain infants the hemolysis associated with increased oxygenation at birth may be excessive and manifests itself by marked jaundice accompanied by an indirect van den Bergh test as is seen in icterus neonatorum. In extreme cases, familial icterus gravis, anemia of the newborn with edema and fetal erythroblastosis may occur. In this condition all types of immature

cells are present and the blood picture is indistinguishable morphologically from Cooley's erythroblastic anemia. The normal blood picture is rapidly regained after transfusion.

The overwhelming majority of the infantile anemias belong in the nutritional and infectious group. These two are often difficult to separate. They are microcytic and hypochromic. The red cells are pale and vary markedly in size and not infrequently also in shape. The color index is low and may reach 0.6 or 0.5. A few normoblasts may be present. We have found no other morphologic feature of the red cell of any differential diagnostic value. The white cell count may vary slightly and the reticulocyte count may be low. Platelets and fragility may be increased. Differential diagnosis of these anemias can be arrived at only by close coöperation with the clinician and even then it is sometimes difficult. Such ancillary tests as sedimentation and the van den Bergh may occasionally be of value. Reticulocytes may be low in infections but these cells may vary considerably in number in short periods of time. The macrocytic anemias encountered by us have been comparatively few in number. The color index varies but these cases are mainly hypochromic. Gastric analysis usually shows free hydrochloric acid. Our cases have occurred in celiac disease and in erythroblastic anemia. The increase in cell diameter is especially marked in this latter anemia following splenectomy.

There are certain types of blood dyscrasias in children which readily lend themselves to labora-

tory diagnosis. These are the aplastic anemia associated with lymphatic leukemia, hemolytic jaundice, sickle cell anemia, and erythroblastic anemia. The following diagnostic features of hemolytic jaundice may be cited, *viz.*, tendency to globular shape of the red cell, a high percentage of reticulocytes, increased fragility of the red cells with a high icterus index, indirect van den Bergh test, and urobilin in the urine and feces.

Sickle cell anemia can be readily diagnosed by the anisocytosis and characteristic sickle shape of many of the erythrocytes.

Erythroblastic anemias show the most varied and interesting cell morphology among the anemias. The outstanding feature is the large number of nucleated forms including normoblasts, erythroblasts (macronormoblasts), and megaloblasts. Dividing nuclei are frequently encountered. Marked anisocytosis and poikilocytosis together with reticulocytes, stippled cells, and polychromasia are always present. Our cases have been mainly macrocytic. As the disease advances the macrocytosis tends to increase and becomes especially marked after splenectomy. This procedure likewise increases the number of nucleated cells.

Von Jaksch's anemia, especially as originally described by that author, is apparently not an entity. This designation should be replaced by terms which are more descriptive of the various conditions which are undoubtedly included in this group.

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TREATMENT OF ACUTE CHOLECYSTITIS*

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Many surgeons, probably the majority group, regard operation upon an acutely inflamed gall-bladder an ill-advised procedure, associated with an unnecessarily high mortality. In support of their opinion they marshal the following clinical facts: Acute cholecystitis is usually a self-limited disease and rarely causes general peritonitis and death; perforation seldom occurs and when it does the rupture is small and slow; the leaking bile and pus cause only a mild peritonitis which is quickly walled off by contact organs and tissues. In view of these facts they urge a treatment of rest, morphia, fluids, and glucose, to be followed by surgery one to two weeks after the acute symptoms have subsided.

There are, however, dissenters from this opinion and practice. We believe this number is

increasing. In their opinion early operation has distinct advantages. They believe that most cases when seen at the beginning of the attack can be adequately studied and prepared in three days; that operation can then be done as safely as four weeks later; that in many cases it is not possible at the beginning of an attack to visualize the character, extent or severity of the underlying pathology by clinical examination; and that the serious complications which frequently develop and progress during this period of delay can be avoided. Immediate surgical treatment according to their experience can be done without increasing the surgical risk. The period of illness is materially shortened and the patient is protected from more extensive biliary damage. Both groups agree that catarrhal, suppurative, and gangrenous pathologies are often so com-

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bined that even the most experienced clinicians cannot in the beginning predict end results.

The term, acute cholecystitis, is generally accepted to include the noncalculous type sometimes associated with certain acute infections; the simple, acute, catarrhal variety; the strawberry gallbladder; hydrops; acute and chronic empyema; and the various types of gangrene with or without perforation. The surgical problems we wish to present in this paper are found in empyema, gangrene, and perforation as they are the serious phases of acute cholecystic disease and furnish the debatable ground as to the time and type of surgical treatment.

For a basis of this discussion an abstract was made from the records of all cases, 48 in number, diagnosed as acute cholecystitis, admitted to the Harrisburg Hospital from July, 1931, to January, 1933. Eight received medical treatment, 7 at operation proved to be either the ordinary catarrhal or the hydrops type. Of the remaining 33, seventeen were classified as empyema; 14 as gangrene with perforation; and 2 as acute rupture with general peritonitis. In the empyema group there were 5 cases with local necrotic areas scattered over the mucosa, but no rupture. These 33 cases of empyema and perforation occurred in 212 patients admitted as frank gallbladder cases or cholecystitis as an associated lesion. The operations were performed by 6 of the staff surgeons.

Historical analysis of these cases reveals the variable clinical data familiar to all surgeons. Ninety per cent had gastric distress for many years, characteristic of cholecystic disease. A negative gastric history was given by 4 cases. The symptoms of onset of present attack varied greatly. Some were clinically mild yet surgically showed the pathology of a severe infection. In a few cases the reverse was recorded. In the majority, however, the final attack resembled previous ones, except that it did not subside in 48 hours. As a rule the intensity of the infection indexed the severity of the clinical picture. If the development of symptoms was slow, mild, and persistent, covering a period of 2 weeks, a chronic empyema was usually found at operation. Acute empyema, gangrene, or perforation was the surgical pathology noted if the onset was fulminating, serious, and rapid, associated with the constitutional symptoms of fever, chills, increase of pulse rate, leukocytosis, peritonitis, rigidity, persistence of pain and tenderness. In two cases the onset was so acute and the abdominal rigidity so pronounced that a ruptured ulcer was suspected.

The location, extent, and degree of gangrene also showed the usual variations. Three cases

ruptured on the liver side of the gallbladder; 4 on the free side of the fundus; while 9 perforated at or just above the cystic duct. These variations are to be expected if it is remembered that the chief factor is interference with the circulation to the gallbladder. Whether the circulatory obstruction is partial or complete may depend upon the amount of edema in the gallbladder, size and location of the stone, and the position and distribution of the cystic artery in that particular patient. None of these factors can be accurately determined clinically. As previously noted, perforation may occur anywhere, but the most common location is near the cystic duct. Usually the rupture was slow permitting adhesions to limit the infection. In one case the history suggested the presence of a local abscess for 3 months, which eventually burrowed through the anterior abdominal wall. In another case the gallbladder ruptured into the liver 2 months before admission. At no time was there severe pain nor were the clinical symptoms more than suggestive of gallbladder disease. Because of one month of persistent jaundice, the absence of constitutional symptoms and the presence of a massive liver, cancer was suspected. Operation showed a huge abscess of the liver, from which gallstones were removed and nearly a quart of brown, thick, foul smelling fluid drained. This patient made a surgical recovery, but the convalescence was long and it is doubtful if recovery will ever be complete. This case illustrates the extraordinary regenerative function of the liver, the long period of morbidity, and the permanently impaired health frequently found in patients of this group. Occasionally the rupture is free and frank, spilling bile and stones into the abdominal cavity. One such case was recorded. There were two patients in this series in whom a spontaneous fistula had formed between the ampulla and duodenum.

The average period of sickness prior to admission was 17 days; the average preoperative time in the hospital was 9 days and the surgical mortality was 18 per cent. The 17 days of delay prior to being referred for operation indicate that the surgeon rarely sees an early case of acute cholecystitis. The classical symptoms are well known: severe upper abdominal pain, lasting several days, radiating to the back; vomiting; exquisite tenderness in the upper right quadrant; rigidity; fever; and leukocytosis. In some cases one or more of these cardinal symptoms are lacking, and there may be wide variations in the degree of the symptoms that are present. In this group there were 8 symptomatically very mild yet with gallbladder pathology far beyond the clinical picture. In 20 there was a long his-

tory (3 to 20 years) of repeated attacks; in 5 there was a short atypical or complete absence of a cholecystic history. In the majority, however, this final attack was an acute exacerbation grafted on to a long-standing infection. The diagnosis was correctly made in 90 per cent but the correct and complete visualization of existing pathology was lacking in 80 per cent. This latter fact is not regarded as a reflection upon either the internist or the surgeon, because with the wide clinical and pathologic variations just noted it is frequently impossible for even the most skillful diagnostician to judge these local conditions accurately.

These clinical facts should be emphasized to the physicians who see these cases in the beginning. They should be mindful of these irregularities in clinical progress and not be so confident that the patient will recover from this attack just as he had previous ones. They should remember that deferring surgical treatment not infrequently means extension of infection to the abdominal cavity and liver. The management is questionable which permits the patient with acute cholecystitis to go several days without a surgical consultation.

The diagnostic procedure of cholecystography was noted on 9 charts. The wisdom, value, or necessity of this is doubtful. To summarize from Dr. Deaver's last paper, "The Functionless Gallbladder": The roentgen ray reveals functional activity and only that. It gives no information as to severity of the infection or degree of circulatory or duct obstruction. For this data the surgeon should depend upon information obtained from the history and from abdominal palpation.

Assuming that the patient has acute cholecystitis, the attending physician and surgeon should at the beginning attempt to evaluate the following: The character of the underlying pathology; the individual resistance as gauged by age and obesity; the amount of cardiovascular-renal damage of a long-standing infection; and the clinical evidences of empyema, gangrene, or perforation. It should be assumed that there is some impaired liver function and sugar metabolism in every case. If the surgeon is given an opportunity to make this kind of survey at the very beginning of the attack, he can safely operate upon a majority of these patients on the third or fourth day.

The present status is that surgeons are called to see these cases late, and are obliged to operate upon terminal pathology, with a high mortality and a morbidity difficult to estimate. As noted before, 90 per cent of this group had a history of recurrent gallbladder disease for years. In

terms of pathology, this means the gallbladder becomes thickwalled, fibrotic, and loses some of or all its function. White fibrous lines, commonly known as scarring, cover the liver capsule especially in the region of the gallbladder fossa. In many cases there occurs an inflammatory process around the walls of the intrahepatic bile ducts which is called cholangitis. This may develop into a biliary cirrhosis. For good measure, add cardiorenal damage and we have a good pathologic picture (not overdrawn) of the average long-standing gallstone patient. In the 48 cases reviewed, there were 8 deaths and 5 of these were listed myocarditis as a contributing factor. Even though this record is accurate, it should not be regarded as a reason for withholding the benefits of surgery from patients suffering with cholecystitis. An interesting observation was made in one patient who had symptoms of angina and gallbladder disease for several years. At the time of his last attack, his symptoms were purely cardiac (precordial pain) for the first 24 hours. Gallbladder symptoms supervened the second 24 hours. Abdominal section the third day revealed a completely gangrenous gallbladder. This patient made a surgical recovery and has been free from all cardiac symptoms for 2 years. The myocardial improvement in this case was quite analogous to what is frequently observed following thyroidectomy for toxic goiter. Not infrequently a patient with a surgical gallbladder is advised against an operation because of myocardial symptoms. It is a question whether we fully appreciate the relation of these two conditions and the fact that a cholecystectomy will sometimes achieve a brilliant cardiac cure.

Intelligent treatment of acute cholecystitis should not be governed by a fixed set of rules. The choice of the safest time for operation is guided by a survey of all the clinical data in each individual case. The following general principles have been found helpful in making this decision.

1. There should be no surgical delay in the acute fulminating type.

2. The mild case of the simple catarrhal variety can be operated upon early or delayed for several weeks with equal safety. Probably the majority of the acute cases are in this group. They are not serious and quickly recover with medical treatment. If there is no improvement in 3 days, the possibility of cystic duct obstruction and an unusually severe grade of infection should come forcibly to mind.

3. The severe cases should be hospitalized at once. The first two or three days are spent in getting clinical data, giving symptomatic treatments, preventing dehydration by free use of

fluids, and stabilizing disturbed sugar metabolism by intravenous glucose solutions. If the temperature and pulse rate fall, if the pain, tenderness, and abdominal rigidity decrease, further delay can receive consideration. If, however, these clinical signs persist, operation should not be delayed. If these patients are not hospitalized until the tenth day they are probably first seen in the height of the attack and the surgeon has no alternative of waiting until the symptoms subside. Seven cases of our own in this group had the benefits of early surgical consultation and early surgical treatment. The gallbladder in these cases was distended, contained pus, stones, and varied in degrees of gangrene. These 7 patients were rewarded by a prompt recovery following a cholecystectomy.

As to some operative factors of safety which are essential: We have referred to the value of several days' preoperative use of glucose and saline. The anesthesia used is also important. Unless there is a definite contraindication, we favor the use of spinal anesthesia because the relaxed abdominal wall and absence of straining permit a gentle, rapid, and accurate technic, in spite of the operative difficulties presented by a fat abdomen, an edematous, gangrenous gallbladder, the associated adhesions and inflammatory infiltration in the neighborhood of the cystic duct and duodenum. The question of simple drainage or removal of the gallbladder must be decided by the individual surgeon in each case. The decision should be based upon the condition of the patient, the character of complications in the liver, common duct, or pancreas and the experience and skill of the surgeon. If there is a small, thick, contracted gallbladder and an obvious biliary cirrhosis, removal of the stones and drainage is the wiser procedure. Simple drainage is probably safer in the presence of severe toxemia and a soft extensively gangrenous gallbladder. There was one case of acute pancreatitis complicating the acute cholecystitis. This patient recovered following a cholecystectomy. A tube was placed in the common duct and a localized abscess in the right third of the pancreas was drained. The writer is in accord with the prevailing opinion that cholecystectomy is a more complete operation and has been able to do it in 90 per cent of these cases without increasing the surgical risk. The cautery knife has been of much technical aid in the actual removal of the gallbladder from liver attachments. The post-operative care is important. The daily intravenous use of 1500 c.c. of 10 per cent glucose during the first 4 days assists both hepatic and renal function. Carbon dioxide and oxygen, as suggested by Graham, reduce the risk of pul-

monary complications and should be used after the operation under the direction of an experienced anesthetist. If used too frequently or too long, respiratory fatigue may follow, thus defeating the purpose of the procedure. During the second 24 hours, 2 patients developed pulmonary congestion and marked cyanosis. Both were placed in an oxygen tent, the cyanosis immediately disappeared, the critical period passed in 3 days, and both progressed to a satisfactory recovery. The suggestion made by Judd that every patient who has passed through a long difficult gallbladder operation should be immediately placed in the oxygen tent is a good one.

Many of the present problems associated with the surgical treatment of the serious types of acute cholecystitis could be eliminated if the patients with cholecystic disease were not permitted to postpone the operation for years. More of these problems can be avoided if the patient is referred for a surgical opinion within the first several days of an acute attack. So long as the present attitude of prolonged delay persists on the part of the laity and the physician, just so long will this question of time and type of operation perplex the surgeon.

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ABSTRACT OF DISCUSSION

DAMON B. PFEIFFER (Philadelphia): I am interested in the question raised in Dr. Smith's paper, when to and when not to operate, as that question is encountered clinically so often. In general we have for many years thought rather loosely upon this subject. We have said in the case of appendicitis operate immediately; in acute cholecystitis, delay until a favorable moment. It has been only within the past few years that forcible attention has been called to the fact that we are not able to define what we should do in cases of acute cholecystitis. If we delay at all, in what cases should this be done, and what are the clinical signs and symptoms by which we shall decide these questions? We cannot reduce it to the routine rule we have for appendicitis. There we operate for prevention, but it is not necessary to operate for immediate prevention in cases of gallbladder disease because gallbladders rarely perforate and infrequently become gangrenous. There is more of a latent period during which we can decide what to do and in which we can still rescue our patients if things are going against us. Can we perhaps fix on a time for operation which will give the benefits of early operation in the desperate cases and the preventive effect in the cases which are doing badly? It has been our custom to operate in the subsiding stage, that is, not to intervene in acute cholecystitis unless there is obviously a beginning peritonitis so that either perforation or gangrene is feared. Usually they are not inflammatory and it is often difficult to distinguish between the acute obstructive and the acute inflammatory seizure. Therefore, unless we are confronted with something like a gangrenous or perforated emergency and feel very sure of it, it is wiser to delay operation. We are usually dealing with an older patient and one whose

organic deteriorations are sometimes very marked and who is in need of a period of preparation.

Should we try to tide such patient over in the interval or should we operate in the subsiding stage? In a certain number of the cases one does not get away with waiting; they do perforate; they get beyond limits. Some cases become gangrenous. Some patients will improve and leave your supervision or, if under the medical man's care, they will not submit to surgery because they think they are getting well, although they harbor within their abdomens serious pathology. That is a great disadvantage. The only way to settle this question is to go over your and the experience of others and decide how hazardous it is to intervene in the subsiding stage of cholecystitis. The chief resident of our hospital reviewed 121 cases of mine of the past 5 years and found approximately 20 of those cases were acute cholecystitis. One with a perforation, upon whom we operated immediately, recovered. Obviously that patient should not have been kept waiting for operation. The other cases were operated upon at intervals of from one to 10 or 12 days, the average being about 5 or 6 days. In the case of gangrenous gallbladder we sometimes found a spreading peritonitis. There were 2 deaths; in the whole series there were 4 deaths. One death occurred in a patient who had been kept waiting for operation for 22 days; the other in a patient who had been kept waiting 13 days before operation. Both patients had gallbladder symptoms for years. They were about age 60 and because of their hearts and kidneys were difficult operative risks. The remaining acute cases got well. The inference is that: It is not so hazardous after all to intervene in the acute stages of acute cholecystitis; we do not have to tide these patients over until the interval stage; by operating after we have brought the patient's condition up to the highest possible level under the circumstances, or where we have decided he is not going to get well after 2 or 3 days waiting, then is the time to intervene. As Dr. Smith said, this is not a matter for the physician to decide by himself. Surgical experience is needed, and his remark that medical management which does not call the surgeon within the first few days is open to question should be made the slogan of any such discussion of this subject. Usually the bad cases are those that have been tided over by the physician in the hope of reaching a cure or a state in which operation can be avoided altogether, or can be delayed. Mortality usually comes from excessive delay, as evinced by the literature and my own experience. My rule is to operate in the subsiding stage.

MOSES BEHREND (Philadelphia): Consultation with the surgeon should always be held; these patients should be hospitalized; and spinal anesthesia should be used. In the past 4 or 5 years we have rarely used any other kind of anesthetic.

Dr. Smith waits 3 or 4 days in the acute fulminating cases. These are not cases of perforation but of empyema with blockage of the cystic duct, with possibly gangrene and inflammation of the mucous membrane. We can never agree to operation on these fulminating cases if they are very acute, but wait for subsidence of symptoms. No matter how many well-known surgeons advise operating on acute conditions in the gallbladders, it is a mistake. The mortality will increase tenfold if the advice is broadcast—and there is no doubt that it is being broadcast at the present time—to operate on patients with acute conditions in the gallbladders. We have seen only one case of perforation in more than 30 years and that is one reason we are not afraid to hold

cases of acute empyema until they have been allowed to subside. Occasionally a patient will leave the hospital feeling that he does not need an operation. These patients will return with another attack and will then be willing to be operated upon.

Since Jan. 1, 1932, we have not had a patient die following cholecystectomy, and this is due to the care given these patients in the acute stage of the disease. I understood that Dr. Smith has had 8 deaths in 48 cases.

If these cases of acute empyema of the gallbladder are drained surgically the mortality will be much reduced but the patient will require a secondary operation. Is it advisable to do 2 operations within a few weeks on a patient if one operation will suffice? In the acute stage avoid food and water for at least 24 to 48 hours—that is one of the reasons they should be hospitalized; give glucose intravenously, by the bowel, and intradermally, and patients will be ready for operation in a short time. There are no hard and fast rules but each case should be treated on its merits. Some will subside in several days, others will take a week or 10 days before they can be operated upon with safety.

B. B. VINCENT LYON (Philadelphia): We have something over 2000 private protocols on cholecystitis and equally as many in hospital work. We are, to some extent, masking the issue. We should study more intelligently the life history of gallbladder disease from start to finish. We must stop talking about fair, fat, and forty, mother of children, belching gas with upper abdominal pain, and suggesting that that means gallstones. It really means criminally late diagnosis. Prevention tactics are urgently needed. We should teach our people to avoid focal infection in teeth, tonsils, sinuses, and upper respiratory colds; teach them not to skip meals which "splints" the gallbladder but to eat 3 meals a day, each containing ample fat, but not to be a glutton; to avoid drugs like cinchophen. If a woman, we might caution her to have a lesser number of pregnancies—although the religionists may object to that idea—to avoid cholesterol stones.

Diagnosis of early stages of acute cholecystitis is best made by the duodenal tube. The milder cases may follow a descending acute hepatocolangeitis or ascend by extension of a simple catarrhal cholangitis. Many cases accompany acute infectious fevers, like typhoid, pneumonia, influenza, or even simple gripe.

Surgeons are seeing the late stages of a neglected disease and it is an everlasting shame to both the physician and the surgeon. There should be early surgical consultation and no unnecessary operations.

Simple acute cholecystitis is a simple disease if recognized promptly and properly treated medically. It is no longer an obligatory surgical disease. The general treatment of acute infected cholecystitis is expectant: bed rest, ice bag, liquid diet, supportive measures, care of the bowels, occasionally morphine, and intravenous glucose. The special treatment is designed to secure adequate drainage and disinfection of the inflamed organ. At this stage surgery is usually not indicated since most cases subside after a week to 10 days, with duodenal tube drainages given daily or every second day, and with the administration of large doses of sodium salicylate and hexamethylenamine (urotropin or uritone). The latter liberates formaldehyde which passes out through the liver and kidneys. It may be detected in the bile recovered by drainage. Hurst, of Guy's Hospital, London, advocates large doses, 50 to 100 grains, of hexamethylenamine 3 times a day, protecting the kidneys by giving at the same time 60 to

100 grains each of sodium bicarbonate and sodium citrate to keep the urine constantly alkaline. Some believe, however, that formaldehyde is not liberated with an alkaline urine.

After the acute phase has subsided, the patient is given a cholesterol-low diet for 2 or 3 weeks, but otherwise the same follow-up management as in simple catarrhal cholecystitis. It should be more prolonged, however, since one attack of acute cholecystitis untreated is followed by others and favors gallstone formation and chronic cholecystitis. Vaccine therapy may help and in many cases with pyogenic bacteria, does help to control the possibility of reinfection.

The second thing is to assist the gallbladder to empty itself by means of drugs; 3 to 5 minims of oleic acid in gelatin capsules, an hour before meals or 3 hours after meals has been proved by cholecystography to assist in emptying the gallbladder. Or 1 to 3 grains each of sodium oleate, sodium glycocholate, and sodium salicylate, to which is added 1 minim of peppermint oil, in a soft mass pill is a good combination taken after meals. If there is pylorospasm, a capsule containing 1/500 grain atropine sulphate, 1/8 grain luminal, and 3 to 5 grains sodium bicarbonate before meals is a good combination.

The technical treatment is to give biliary drainage by duodenal tube according to my standard technic once or twice a week in courses of 4 to 6, and repeated, if necessary, 2 or 3 times a year. This will keep the cystic duct patent and the gallbladder bile from stasis as well as having a desirable stimulating effect on the liver cells and on the gastroduodenal mucosa. I am seriously opposed to having this work done by inexperienced technicians, nurses, or doctors.

An acute suppurative cholecystitis is quite a different matter. As soon as such a diagnosis is made or even

suspected, the patient should be immediately hospitalized and the selection for the day or hour for surgery given careful consideration. If the attack shows evidence of subsiding, it is better to wait, but the surgeon may be forced to quick intervention. Duodenal tube treatment should not be considered if the signs point to gangrenous suppuration. If, however, the process subsides to a chronic empyema and the cystic duct is patent, we have frequently and successfully drained an ounce or more of pus from the gallbladder by duodenal tube. In selected cases, with bad heart or kidneys, this is good judgment for it paves the way to safer surgery, prepares the operative field, allows the surgeon to do a cleaner cholecystectomy and avoids the two-stage procedure of cholecystostomy followed by cholecystectomy.

By and large we must reeducate ourselves in this subject. Bold surgery, if needed, by the experienced surgeon yields the best results; whereas even conservative surgery by the inexperienced surgeon often turns out to be very little short of unpremeditated but legalized murder or leads to years of postoperative morbidity. Most of those who die do so from one of several avoidable causes, but much of the whole trouble is due to inexperienced surgery.

There are two main difficulties to correct. The medical man sees many more cases in the early stages of the disease than does the surgeon, but too many of us give shamefully inadequate recognition and treatment at a time when cure or prompt arrest will follow proper treatment. The surgeon sees too many cases in terminal stages of a chronic disease which handicaps his best efforts. The tyro in surgery should not be allowed to operate on such cases. A master technician is needed. We should get together for a roundtable discussion, try to improve our mistakes, reeducate ourselves, and stop "the pot from calling the kettle black."

PERNICIOUS LEUKOPENIA*

(Agranulocytic Angina)

THOMAS FITZ-HUGH, JR., M.D., PHILADELPHIA

Pernicious leukopenia, more commonly though less aptly called agranulocytic angina, is a disease of unknown etiology, affecting all ages and both sexes but perhaps most frequently, middle-aged women. It is characterized by profound leukopenia (chiefly granulocytopenia), by fever, prostration, and widespread focal necrosis of tissues especially manifest as oropharyngeal ulceration. Its course is often acute with death in a few days to a few weeks. It is sometimes chronic over a period of months and is not infrequently subject to remission and relapse and finally to an apparently complete cure.

The more one sees of this condition the more convinced one is of its fundamental unity and of the validity of its status as a clinicopathologic entity (in the same sense that pernicious anemia or diabetes mellitus is accepted). Though ad-

mitting that the entire panorama of pernicious leukopenia may be actually reproduced in the course of certain other diseases and admitting that it may be occasionally so closely simulated as to render differential diagnosis very difficult, personal conviction is none the less strong that most of the cases exhibit the uniform pattern of a disease *sui generis*.

As usual it is the general practitioner who first sees these patients. The picture confronting him is most likely that of an apparently ordinary sore throat with slight cervical adenitis and perhaps more fever and prostration than might be expected. The appearance of the throat may itself sometimes suggest the correct diagnosis but this cannot be depended upon. The original impressions of the attending physicians (and in several instances my own) in cases personally seen have included: Vincent's angina (whose organism by the way is not infrequently present), streptococ-

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

cus tonsillitis, diphtheria, aphthous stomatitis, noma, quinsy, grippal pharyngitis, glandular fever, and German measles. Sometimes it is the dentist who sees the case first as an aftermath of tooth extraction. In 4 of our first 18 cases, the onset followed promptly on dental extractions—with alveolar ulceration, angina, and high fever as presenting symptoms. Occasionally the otolaryngologist is the first observer. On two of our cases the operation of incising a supposed quinsy had been performed before the diagnosis became obvious. Less commonly the general surgeon may witness the onset apparently as a sequel to some surgical or other trauma.

A blood count is absolutely essential to the diagnosis. The disease begins with (and clinical symptoms are preceded by) a profound drop in the total leukocytes usually to 2000 or less. More than 70 per cent of our cases decreased to 1000, or less, white cells per cu. mm. at the height of the disease. The granular leukocytes (chiefly the neutrophils) suffer the brunt of the fall, usually disappearing entirely. The lymphocytes and monocytes also are often greatly reduced. A typical count in a severe case is 200 to 800 leukocytes with the differential showing nothing but lymphocytes and a few monocytes. The red cells, hemoglobin, and platelets

remain practically normal for days; though in prolonged, chronic, or relapsing cases with marked ulceration, sepsis (and sometimes hemorrhage from ulceration) there is, of course, anemia. In practically no other disease, however, does one find such profound leukopenia and granulocytopenia with little or no anemia and little or no thrombopenia.

From this standpoint in the differential diagnosis one must consider all the infections associated with leukopenia and granulocytopenia—such as typhoid, influenza, malaria, *Brucella abortus-melitensis* infection, measles, miliary tuberculosis, and overwhelming septicemia. Practically all these present, in spite of absolute leukopenia, a relative neutrophilia with well marked "left shift." In addition one must consider the aplastic anemias (idiopathic as well as symptomatic from arsphenamine, roentgen ray, and radium and benzol), aleukemic and leukopenic leukemias, leukopenic forms of Hodgkin's disease, lymphosarcoma, Banti's syndrome, infectious mononucleosis, and occasionally pernicious anemia and metastatic malignancy.

Time forbids detailed discussion of differential features. Suffice it to say that the relatively well maintained level of red cell, hemoglobin, and platelet content and other hematologic and clin-

TABLE 1.—*Summary of Necropsy Findings in 8 Cases of Pernicious Leukopenia*

Case No.	Digestive tract	Genital tract	Spleen	Bone marrow	Miscellaneous
2	Ulcers in mouth.	Normal.	170 gm.; many monos. and lymphs, no polys.	Sternum, ribs, and vertebrae show "congestion" and "no evidence of aplasia."	Myocardial degeneration; right upper lobar pneumonia; no polys. in tissue sections.
4	Ulceration and edema of uvula.	Normal.	250 gm.; acute splenic tumor; many mononuclear leukocytes; no polys.	Sternum, ribs, and femur—in tissue congestion and hyperplasia of myeloid elements but no polys.	Cardiac hypertrophy; pulmonary infarct.
5	Necrosis of tonsils and pharynx; edema and ulceration of larynx.	Normal.	Moderately enlarged; packed with red cells and mononuclear leukocytes; no polys.	Marked red cell hyperplasia; "scarcity of myeloid cells" (femur only, and not examined by us).	In all organs small necrotic patches without cellular reaction; widespread necrosis of walls of smaller arteries and veins.
6	Gingival ulceration; large hemorrhagic ulceration of descending colon.	Large ulcer of vulva.	270 gm.; acute splenic tumor; no polys.	Femur and sternum marked myeloid and erythroblastic hyperplasia; no eosinophils or polys.	Myocardial degeneration; congestion of lungs; congestion of adrenals and lymph nodes; no polys. in sections.
11	Ulcers of mouth.	Normal.	140 gm.; congested with red cells; many lymphos and monos.; no polys.	Considerable myelocytic and myeloblastic hyperplasia in femur, tibia, and ribs; no eosinophils or polys.	Nearly complete disappearance of lymphoid tissue throughout the body; heart's blood culture pure <i>B. coli</i> communis.
13	Ulcers of gums and pharynx.	Normal.	240 gm.; acute splenic tumor; no polys.	Moderate myeloblastic hyperplasia in islands in femur and tibia; other areas fatty.	Myocardial and pulmonary congestion; moderate lymph node hyperplasia; acute interstitial focal nephritis.
15	Normal.	Prostatic Ca.	300 gm.; acute splenic tumor; a few polys.	Exhaustion in femur; myeloid hyperplasia in ribs (myelocytes and myeloblasts but no polys.).	Enlarged liver; recent lobular pneumonia.
16	Ulcers of lip and gums with necrosis of alveolar process of right mandible.	Normal.	320 gm.; slight perisplenitis and marked chronic congestion; packed with red cells and mononuclear leukocytes; no polys.	Sternum and ribs normal red; femur fatty (normal); sternum of practically normal cellularity (except for increased red cell congestion); many myeloblasts and normoblasts but no myelocytes or polys. or eosinophils; a few megakaryocytes.	Pulmonary infarction; terminal jaundice; liver considerably enlarged (cloudy swelling and fatty infiltration); a few slightly enlarged mediastinal lymph nodes showing inflammatory hyperplasia with many mononuclear leukocytes and macrophages and large lymphocytes but no polys.
17	Ulcers in mouth and pharynx; perirectal inflammation; ulcer in rectum.	Normal.	250 gm.; overgrowth of large monos.; no polys.	Marked erythropoietic and myeloblastic hyperplasia in femur and tibia; arrest of maturity of myelocytes; no eosinophils or polys.	No polys. in tissues examined.

ical data point out the correct diagnosis in all but very few instances.

The morbid anatomy of pernicious leukopenia may perhaps be best presented in summary of 8 necropsies in our own series.¹

Our present tentative concept of the mechanism of pernicious leukopenia is briefly as follows: For some unknown reason, perhaps through bacterial toxin or allergy (originally suggested by Pepper) or suppression of chemotactic or maturational factors, there occurs first in the leukopoietic centers of the bone marrow (and subsequently in the leukopoietic tissues of the lymph nodes, spleen, and other parts of the reticulo-endothelial system) a standstill or arrest of development of the parent white cells. Maturation and emigration slow down or cease entirely. Rapidly progressive leukopenia ensues with granulocytopenia predominating. The loss of this normal defense is quickly followed by tissue damage and bacterial invasion and widespread cellular necrosis. The white cells of the bone marrow represented by nothing older than myeloblasts (and sometimes myelocytes) in normal or supernormal numbers (myeloid hyperplasia stage) may likewise finally suffer death and necrosis (so-called "aplastic marrow" stage). Death of the patient soon follows or a remission (partial or complete) ensues. The remission seems to be initiated by a "release of maturational arrest" or some other factor which allows normal leukopoiesis and emigration to occur. A flood of young granulocytes appears in the blood stream (Doan's myelocyte crisis) and, in a satisfactory remission, a relatively normal leukocyte picture is soon reestablished—with tissue recovery and convalescence following just a short step behind the hematologic progress.

It is this concept of pathogenesis together with other striking analogies to pernicious anemia which leads us to adopt the designation pernicious leukopenia for this disease.

The treatment, aside from local oropharyngeal care, and general medical measures, includes one or more of the following: (1) Blood transfusions. (2) Roentgen-ray irradiation of the bones. (3) Pentose nucleotide injections. (4) Leukocyte cream and leukocyte extract injections. (5) Liver extract. (6) Neoarsphenamine injections. (7) Fixation abscess. (8) Cod liver oil, calcium, orange juice, yeast, and wheat germ extract. (9) Recently, cortin and (10) addisin injections. The latter, just reported by Morris, has great interest and promise.

Blood transfusions are in our opinion the most useful treatment. Immunotransfusions and so-called nonspecific immunotransfusions have been recommended but are both subject to objections

and difficulties which render them less valuable than the ordinary procedure. In cases requiring many transfusions it is sometimes advisable to bleed the patient prior to the introduction of new blood.

Roentgen-ray irradiation should be given in all cases if practicable. It is certainly harmless and may be of value though our experience has not been convincing.

Pentose nucleotide therapy (Jackson) is today the most widely used treatment and the one which statistically promises the best results, though personal experience with it has been disappointing.

TABLE II.—*Summary of 18 cases (9 necropsies) of Pernicious Leukopenia*

Age Incidence:	19 to 78 years.
Sex:	60% males.
Classification and Outcome:	60% (11 cases) "acute"; 1 living (cured 3 years); 90% + mortality.
	29% (5 cases) "chronic continuous"; 1 living (barely!); 80% mortality.
	11% (2 cases) "chronic remittent"; both living (one "cured" 18 months).
Total mortality of entire group,	78%.
Total "cures" 2 (11%)—one 3 years +, and one 18 months.	
Treatment Results:	1. Roentgen-ray—6 cases, 4 dead (67% mortality) 2 "cured."
	2. Transfusion—14 cases, 12 dead (85% mortality) 2 "cured" (ibid).
	3. Pentose Nucleotide—5 cases, 5 dead (100% mortality).
	4. Liver Extract No. 343—6 cases, 5 dead (83% mortality) 1 "cured" (ibid).
	5. Fixation Abscess—2 cases, 1 dead (50% mortality) 1 "cured" (ibid).
Necropsy Findings:	Splenic enlargement (over 200 gms.) 7 cases (78%).
	Hepatic enlargement, 3 cases.
	Gastro-intestinal tract ulceration, 8 cases (90%).
	Vaginal ulceration 1 case (of 3 females).
	Bone marrow myeloblasts, normal or hyperplastic in 8 cases (90%).
	Polymorphonuclear neutrophiles in tissues, completely absent in 8 cases (90%).

Injections of leukocyte extracts and leukocyte cream preparations were used in the early days of treatment and recently have been revived with encouraging reports (Strumia, Custer, *et al.*). Certainly these, too, are harmless and should be tried. The same may be said of the other items of treatment enumerated except for arsphenamine.

mine and fixation abscess which are no longer recommended as routine measures.

The prognosis of pernicious leukopenia is difficult and uncertain. It is, generally speaking, a grave disease in which the mortality is probably more than 50 per cent. The first picture of it in 1922 by Schultz was entirely gloomy with 100 per cent mortality. Since then the relative number of reported cases with favorable outcome has steadily increased, partly owing to earlier diagnosis and better treatment but more especially representing the inevitable emergence of a more nearly true picture of the disease in its various manifestations and grades. With this thought in mind one is justified in viewing all specific therapeutic claims with due caution.

A summary of our first 18 cases¹ seen in the University Hospital (1927-1932) will give you our own rather unhappy perspective.

If our view of the mechanism of pernicious leukopenia is somewhere near the truth it gives reasonable basis for hope that soon a specific maturation-stimulating or releasing principle for the white cell arrest of this disease may be discovered to match the spectacular "specifics" now available for treating the red cell arrest of pernicious anemia.

2020 Locust Street.

REFERENCE

1. Fitz-Hugh, Thomas, Jr., and Comroe, B. I.: Agranulocytic Angina (Pernicious Leukopenia)—A Study Based on 18 Cases with 9 Necropsies. *Am. J. Med. Sc.* **185**: 552, April, 1933.

POLYCYSTIC KIDNEY DISEASE*

CARLYLE HAINES, M.D., SAYRE

Polycystic kidney disease is primarily a medical condition and becomes a surgical one only if complicated by, or associated with, uncontrollable hematuria, infection, calculus formation, severe pain from pressure, or displacement of abdominal viscera.

The etiology of polycystic kidney disease is more or less questionable. Various causes have been ascribed, but of these, probably the most plausible is that it results from malformation, nonunion, or displacement of proper embryologic structures, to be followed later by neoplastic growth. There is a difference in degree, etiologically, between polycystic kidney disease occurring in infancy, or early life, and polycystic kidney disease not manifesting itself until middle, or late adult life, as is usually the case. In the former it is usually a rapid fulminating affair ending in early death; many times in the latter it produces no symptoms and is not recognized during life, only to be found at necropsy, as it occurred in two of our patients. One of these, aged 60, died as the result of a brain abscess; the other, aged 51, was admitted to the hospital in a moribund condition, dying 2 hours later. Necropsy in each case showed both kidneys to be practically destroyed by polycystic formation; in one it was associated with marked cystic liver changes. Some very interesting associated anatomic anomalies were found, strongly suggesting embryonic malformations as the etiologic factor in polycystic kidney disease. Two had clefts of the neural sacral arches; one had spina bifida occulta; two had cystic liver disease; and one had

congenital bilateral inguinal hernia, bilateral spermatocele, hypospadias, and bilateral hydro-ureter.

Heredity has been mentioned by several observers as a congenital or causative factor. Many such cases have been reported occurring in the same family. In our series no history of heredity was elicited.

There is also a difference of opinion whether or not polycystic kidney disease is ever unilateral. I have never seen the condition unilateral, nor do our necropsy records show that it was ever found. I have observed 2 patients in whom a supposedly unilateral condition existed, and upon whom a nephrectomy was performed. One patient was operated upon in the Guthrie Clinic and the other elsewhere 12 years previously. In both cases surgery was advised and carried out because the condition was believed to be tumor in one, and hydronephrosis in the other. In both instances, when the kidney was found to be cystic, the opposite one was palpated intra-abdominally and found to be grossly normal before the affected one was removed. Later, however, in both cases, the remaining kidney enlarged and showed definite polycystic changes. On the other hand, necropsy reports from many hospitals show that unilateral polycystic kidney disease does occur.

Although our series of 21 cases is not large, nevertheless it gives a fair average of what can be expected to be found, and forms the basis for fairly accurate conclusions. The ages ranged from infancy to beginning old age. One patient was a few weeks old; one was age 18; one was age 24; five were between age 30 and 40; two

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

were between age 40 and 50; ten were between age 50 and 60; and one was age 60.

Blood pressure for age and sex was about normal, except in those associated with cardiovascular disease or circulatory disturbances; in those it was high.

Blood urea was slightly higher in all cases, but markedly so in two associated with cystic liver changes.

Blood sugars in all but one patient were within normal limits. This patient had diabetes mellitus.

There was nothing suggestive found in the urine except possibly a lower specific gravity than would be expected in a given number of average normal individuals. In the complicated, or more advanced cases, however, casts, albumin, blood cells, and pus cells were found, and sugar in the patient before mentioned.

There were 12 females and 9 males. The kidney was palpable only on the right side in 5, and on the left side in one (excluding the patient on whom a nephrectomy had been done elsewhere). In 11, there were bilateral palpable masses. In 3, neither kidney could be palpated to the extent of suggesting pathology.

Of the 6 patients in whom only one mass was palpable, along with one in whom neither kidney was palpable (the other 2, not suspected, that were found at necropsy), 3 were diagnosed polycystic kidney disease by intravenous urography, 2 by bilateral pyelography, but not at the same examination, and 2 were diagnosed tumor. In the latter 2, no study of the opposite kidney was made except examination of urine and estimation of function.

Seven gave as their chief reason for consulting a physician, pain, either in the side or abdomen, or both; 4, a palpable mass in the side or abdomen (including one infant whose parents felt the mass); 3, blood in their urine; 2, cloudy urine; 2, heart trouble; one, repair bilateral hernia. The remaining 2 were not recognized before death, but found at necropsy, as before stated.

The duration of symptoms ranged from a few days to 15 years. Of the outstanding cases for duration of symptoms, 2 stated, a few days; 2, several months; one, 2 years; one, 4 years; one, 9 years; one, 10 years; and one, 15 years.

Nephrectomy was performed 6 times, with one death; and Rovsing's operation twice, with no deaths. Ethylene anesthesia was used in 6 cases and ether in 2. Ethylene anesthesia proved entirely satisfactory for all types of kidney surgery.

One patient had a large infected hydronephrosis that was caused by an anomalous vessel; one

had pyonephrosis; one had pyonephrosis with multiple calculi; 2 had persistent hematuria, and one had severe increasing pressure symptoms. Rovsing's method was employed without benefit on the remaining kidney of 2 patients who had previously been nephrectomized. Of the 6 patients who were nephrectomized, one died 4 days following operation; 3 remained well for 2 years. All died, however, before the third year. One patient lived 4 years, and one is still living after 7 years.

CONCLUSIONS

In a series of 21 cases of polycystic kidney disease, it occurred more often in the female than in the male; in the ratio 4 : 3.

It was found to be present in one infant, in one patient age 18, in one age 21, and in 2 who were in their forties. It was found in the ratio 10 : 5 in the fifth and third decades of life, respectively.

Nothing was found in the urine of the uncomplicated cases that was pathognomonic.

Blood pressure and blood urea were unaffected in the uncomplicated cases except those with well advanced cystic degeneration.

Phthalein excretion on the average was low in all cases.

Anesthesia, especially ethylene, was no contraindication for surgery. Patients with polycystic kidney disease, from the standpoint of both anesthesia and postoperative recovery, had less reaction than those often operated upon for kidney tumor.

Uncomplicated polycystic kidney disease is a medical condition, and should be looked upon and treated as one of renal insufficiency. Surgery is indicated only if the condition is associated with, or complicated by, persistent hematuria, infection, calculus formation, or both, or if it reaches such proportions that too great discomfort ensues.

By following a regimen of proper hygiene and diet, 9 patients, including one who was nephrectomized 7 years previously, are living, who otherwise, would be incapacitated or dead.

Guthrie Clinic.

ABSTRACT OF DISCUSSION

JOHN B. LOWNES (Philadelphia): I wish to mention the case of a mother and daughter, as Dr. Haines called attention to familial tendency. At the Jewish Hospital we recently had for study a woman about age 55 whose mother some years prior had polycystic kidneys. The diagnosis was made in the mother at necropsy but in the daughter by the regular urologic study. This woman is still living and is comfortable.

We found polycystic kidneys of great size in a small child, at necropsy. There was one other case, that of a male, age 37, who was brought to the hospital in coma

and died 3 days later. Necropsy showed bilateral polycystic kidneys.

WILLIAM J. EZICKSON (Philadelphia): About 1½ years ago, a young man about age 30, who had been treated for several years for gastro-intestinal symptoms, possibly half-a-dozen doctors or more had seen him, saw some blood in his urine, and was referred to me for study. I do not know why the masses in his abdomen had not been discovered. It was typical polycystic kidney so far as the feel was concerned. He bled profusely and the hemoglobin kept decreasing; the red cells were down to 1,700,000 and we felt that unless we did something he would die. We advised the patient he had some chance, but not very much. Bleeding was coming entirely from the left kidney, and the right kidney was only fair in function. He was given a few transfusions and then his left kidney was operated upon. The mass was so huge that the upper pole could not be palpated. The upper pole of the kidney could not be felt as far up as the fifth rib; the lower pole was down in the pelvis. All the cysts that could be seen and as far as they could be felt were punctured with the cautery. Puncturing required about 30 to 45 minutes and after drainage, he was returned to bed. After receiving some more transfusions, he made an uneventful recovery. The other day his family doctor said he has gained possibly 30 pounds in weight and feels per-

fectly well. That is of great interest and shows what can be done if you sometimes have to operate upon one of these cases on account of hemorrhage. Probably the cauterization sealed off some of the vessels that were causing the hemorrhage. Today he is in fine condition and has some years before him.

GEORGE L. ARMITAGE (Chester, Pa.): A complication in polycystic kidney that I have had occasion to treat, was hemorrhage within the cyst without free bleeding in the urine. It is manifested by a sudden increase in size of one kidney, and if this clot becomes infected the patient becomes very ill. I had occasion to treat one such case; and, as Dr. Ezickson did, cauterized the surface of these cysts and scooped out from one of the cysts a huge amount of clotted material, possibly a quart of clots, and packed the cavity. The patient did very well; is still living, and in good physical condition.

WILLARD H. KINNEY (Philadelphia): I should like to report a case and ask the percentage of gastric hemorrhage. The patient, a male, always had a gastric hemorrhage, prior to the hematuria. Hematemesis always preceded the hematuria. These symptoms had persisted for more than 10 years. The diagnosis was obvious, and no surgical intervention was attempted. The man finally succumbed to polycystic disease.

STERILIZATION IN GERMANY

The recent redrafting of German's laws governing health, sanitation, eugenics, sports, and other aspects of hygiene, personal and public, is especially notable for the new so-called sterilization law. This became effective on Jan. 1. It specifies 9 different diseases, provisionally enumerated, for the attention and consideration of the sterilization boards and the judges to whom appeals may be made. In an interesting and instructive article in a recent issue of *Volk und Rasse*, Dr. Lothar Gottlieb Tirala summarizes the law, presents figures, and draws conclusions significant to the medicolegal aspect of the problem.

One of the most arresting of Dr. Tirala's statements is that hereditary mental defect alone will be responsible for prevention of procreation in more than 200,000 Germans. Since most of these unfortunates are at large, or kept closely at home by protecting families or relatives, they will either have to be persuaded to offer themselves voluntarily to the authorities, are made to do so by relatives, guardians, government officials, or others patriotically inclined. The law provides for the automatic sterilization of the inmates of institutions for the feeble-minded if their condition is a hereditary one.

Mental diseases to which the law applies will be much more easily discernible and manageable. Other afflictions covered by the new legislation include chorea, blindness, deafness, alcoholism, epilepsy, and physical deformities. This type of ease will be much more difficult; the genius of a deaf Beethoven, of an epileptic Nietzsche or Dostoevski, should certainly be free of all law. Poor Nietzsche! When he was dying, insane in an institution for such cases, he wrote in his autobiography: "My digestion is ruined whenever one of these

Germans approaches me." He must indeed have had prophetic vision.

In the same number of *Volk und Rasse*, whether accidentally or intentionally, appears an article by another doctor, Friedrich Stumpf, which tends to take the wind out of the sails of the current eugenical propaganda. Dr. Stumpf writes of a family of criminals in which nothing of a hereditary nature was traceable. Both father and mother were healthy, mentally and bodily, and no particular antisocial tendencies could be found in the family forebears or connection. Evidence this that every human being may be a host of bad genes ready to flower into crime at the urge of various conditions—early environment, bad companions, unwholesome sex life, and a host of other inciting causes.

In an interesting résumé of Germany's new law and of the results which may be expected to follow, a writer in the *New York Times* of Dec. 17, 1933, comments: "That German geneticists are fully alive to the difficulty of weeding out bad genes is evident from their discussion of the Sterilization Act. The first to be sterilized will be the sufferers themselves. But brothers, sisters, cousins, aunts, may be ultimately caught in the dragnet, though they are apparently normal. If Teutonic thoroughness is to be given full play, it may turn out that not more than a 1000 or so in all Germany will escape denunciation. Even these may not be sure of their sacred right to hand on their mental and physical perfection. Man is notoriously unstable in the genetic sense, as the anthropologists have shown. Hence the perfect 1000 must also tremble. If they begin to mutate in some undesirable way—the way being decided in a certain brown building in the Wilhelmstrasse, Berlin—they, too, must fall a prey to the scalpel."

EDITORIALS

MAY DAY—NATIONAL CHILD HEALTH DAY

In all the confusion resulting from the multiplicity of groups organized for bearing the new loads of social responsibility, there sounds the spring call of May Day—Child Health Day.

For a decade this annual summons to give attention to the health of young children has grown louder and more insistent as the years have rolled around. There seems to be an increasing conviction that the on-coming generations shall, in fact, show better specimens of manhood and womanhood than we ourselves present to the world because we are learning how to give children a better chance to be "strong and free."

We see, battling against all the untoward happenings which have menaced the health of hundreds of thousands of young and old in Pennsylvania for three years or more, stronger and stronger forces taking up the offensive against such hazards. It has been a cardinal necessity for physicians and laity alike to get into effective action for combat while awaiting the delayed economic recovery. We know full well that saving life and health, when dollars remain scarce, is something upon which to bring mighty efforts to bear.

The true and tried veteran organizations, whose prime health interests are centered on mothers and babies, are more active this year than ever. Such, for example, is the National Congress of Parents and Teachers with their well known nation-wide Summer Round-up. The May Day—Child Health Day movements sponsored now by the State and Provincial Health Officers' Association of North America, and promoted especially by the American Child Health Association, is another organization leading in the health field. Many other groups have their "days" or "weeks" coincide with the spring health activities. The interlocking of health programs, especially as we know them in Pennsylvania, and the teamwork of scores of organizations have resulted in giving an increasing impetus to campaigns and drives at this season. This year also sees newer agencies in the field specifically called into being in the present emergency. The Child Health Emergency Committee now in its second year of work is one such, seeking to bring into prominence everywhere the undernourished child of any age, and secure for him remedial feeding and medical care.

The persistence of the low general death rate and a new low infant mortality rate in our State must not give us a false sense of security. The general good health of the nation for the past year in which Pennsylvania shares must not tempt us to abate our efforts to safeguard life and reduce health hazards at every possible point. If in a period of economic stress we are making more use of recently acquired health knowledge, in all strata of society, it may in part account for the favorable morbidity and mortality rates. Scientific information on food and nutrition and on preventive and protective measures was not formerly placed within such easy reach of the public at large as it is today, and the application of simple measures together with the wider distribution of safe milk and safe water supplies, would in part explain the favorable figures of the vital statistics tables.

Relaxing efforts to reach more and more parents with the right kind of health instruction, reducing even slightly the efforts to secure health supervision of all ages especially of infants and young children, would be blind folly. There are still areas of life in which little difference has been made in the deplorable health situation. There is very much land still remaining to be occupied. Can the medical profession afford not to quicken its pace leading on in all public health matters?

Plenty of parents still need to be taught the rudiments of infant care. Plenty of families need to know the meaning of early and sure protection against diphtheria and smallpox. Plenty of little preschoolers need to be put into good physical condition for school entrance. Plenty of mothers need to know more about how to secure the best nutrition values in food for families on restricted budgets.

May Day gives us the chance we ought not to side-step of making the celebration a really great health occasion.

MAKE CHILDBEARING SAFE!

The expansion of the meaning of Mother's Day for the past few years has given it great additional value. The rising tide of fine sentiment in the idea of paying affectionate attention to the mothers of the nation bears now upon its bosom a life-saving challenge as well. Childbearing in this our enlightened land is so far from being safe that we urgently need a great arousing of the medical profession on the one

land and the public at large on the other, in order to bring about a reform.

Pennsylvania lost 781 mothers in 1933. A very large proportion of these deaths were avoidable. Wherever studies have been made into the causes of maternal deaths it has been found that two-thirds of them were preventable.

Comment has already been made in these columns on the study of all maternal deaths over a period of 3 years in New York City under the Academy of Medicine. It is of the greatest importance that the facts of that report, probably the most important of its kind that has ever been made, should be kept before us until something is done about the high maternal death rate in this country. If it is *known* that two-thirds of the mothers who die every year could have been saved, how long is it going to be before we begin that saving in earnest? The present emergency might prove a blessing in disguise if it actually pushes us to give more heed to the *kind of care* provided for pregnant women and their confinements by the organizing of an "emergency" service, so that no women need be unattended in delivery and prenatal care may be widely extended.

The major part of the responsibility for better obstetrics certainly lies with the medical profession. Society should as certainly share part of the load because much of the educating of men and women may be done through lay organizations. The information concerning the meaning of and necessity for prenatal care can quite suitably be passed on through lay channels and there should be a corresponding interest aroused to receive adequate care during and after confinement as life-saving measures. Let it be repeated again, the responsibility assuredly rests primarily with the doctors.

If the physicians of every community were determined that every maternity case should have the best care that can be given in that community; if every County Medical Society took the steps it might take to make sure that its members gave before, during, and afterward to every one of their confinement cases, the best of care; if every hospital with an obstetric service lived up to the best that is known, and regarded it as of paramount importance to be a center for distributing information about, and for providing for, prenatal care as well as good care at the time of labor and afterward, the maternal mortality rate would almost immediately drop.

The study and appraisal of a community's resources of one sort or another is fashionable today. The suggestion that a community should study itself and make appraisal of its maternity facilities—know precisely what the facilities are

and whether they meet the standards of adequate care—is entirely practicable and could engage doctors and laity in its promotion to the very greatest advantage. *Why not* know what facilities exist and suggest improvements? *Why not* do it *now* and lead up to a genuine community-wide and State-wide interest in the whole matter? *Why not* make Mother's Day this year one of the most profoundly impressive Sundays that the communities of the Commonwealth have ever experienced because it is used as an occasion to arouse every one to a realization of the needless loss of life in childbearing? We as physicians can make childbearing safer when we *want* to act collectively.

OUR DUTY TO THE PUBLIC

What should be our attitude, for the public welfare and for our own sakes, with regard to irregular practitioners? Undoubtedly the solution lies in the legislation restricting the practice of medicine to those properly qualified and such laws as are for the benefit of the public it is right to urge upon that public even though it be not wise enough to commend us. Were there no legislation restricting the milk supply, the people at large would be content to take any filthy stuff the milkman might bring but, by putting before their more intelligent representatives the need of a pure milk supply, we virtually protect the people from themselves. If it be asserted that people have an inalienable right to use dirty milk if they so prefer and that our laws interfere with this privilege, still they do not possess such right in regard to the milk they shall give their children and it is clearly the duty of the law to guard the helpless from harm. It seems to us that this matter as well as many others of public hygiene in which the public is protected from itself and the helpless from the ignorant is paralleled by that of irregular practice. If we can teach legislatures that medicine should be practiced only by those qualified by proper education, the question is at once solved. If a cultist desires to practice healing let him first study medicine, pass a State Board, then he may practice legally whatever system of the healing art seems to his clarified judgment the most efficient. That he might be guilty of devious methods is true but so might be, and occasionally are, physicians who yet have been regularly admitted to practice and cannot be debarred therefrom. But what such laws would do is to protect from the ignoramus, who with no knowledge of premises sets himself up to cure disease in some new fashion, not only the adult public, who perhaps should be allowed to attempt the descensus

Averni in its own way, but the helpless children who have now to be sacrificed to whatever fad is uppermost in their parents' unbalanced minds. To educate the public and especially the law-makers against such practitioners is not only our right but our duty; but it must be done sanely and with moderation, for even so our only reward will often be an accusation of professional jealousy. Misunderstanding should not deter us; the health of the people in many ways depends upon what physicians have done and are doing in the face of the bitterest opposition; and the measures that they have caused to be enacted and enforced have led to anything but selfish benefit.

BULLETIN OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

The Cancer Commission of The Medical Society of the State of Pennsylvania takes a very keen interest in anything which would tend to increase the knowledge of cancer among the physicians of the State. The Commission considers that *The Bulletin of the American Society for the Control of Cancer* is a very useful publication for this purpose. It always contains a number of short practical articles written by distinguished experts. These are easy to read and always helpful, and the Commission considers the fact that many physicians in the State of Pennsylvania are subscribing to and reading this *Bulletin* will have a very potent effect on the cancer problem in general. The subscription is only \$1.00 a year, which should be sent to the American Society for the Control of Cancer, Rockefeller Center, New York City. The price of a subscription does not cover the actual cost of furnishing subscribers with the material received. The Commission hopes that a great many physicians in the State of Pennsylvania will promptly subscribe for this valuable bulletin. It is the easiest way of keeping abreast of progress in cancer work and what the medical profession should do to help with this progress in general and with their patients in particular.

MENTAL HYGIENE AND MEDICINE

It must be very gratifying to the workers in mental hygiene to observe the gradual increase of interest displayed by medicine in mental hygiene matters. The aroused interest in our medical schools as to the importance of psychiatric teachings in all aspects of medicine is constantly going forward. The effort put forth in establishing psychiatric wards in our general hospitals

has not been lost. The interest manifested in our county and State medical societies is most encouraging.

One of the most gratifying aspects is the wholesome coöperation of the medical journals. A brief index to such activities is revealed in a cross section of journal clippings of April issues which have been forwarded to the writer for review by our own editor, one of the pioneers in the medical journalistic work to coöperate wholeheartedly.

In the April clippings, journals from nine states, widely scattered, are pounding away through space given to mental health matters. The subjects, likewise, have a wide range, such as instincts, dementia precox, organic psychoses, legislation, psychoanalysis, behavior problems, psychiatry and crime, personality studies, feeble-mindedness, state hospitals, etc.

It would appear that we are making progress in all these matters and it certainly must be gratifying to the medical profession of Pennsylvania to know that they were among the pioneers in this particular field and that our own JOURNAL, through the vision of the editor, blazed the trail in journalistic coöperation.

SEES PROVINCIALISM IN COLLEGE PRESS

Many of the members of the medical profession have sons and daughters who are in attendance on colleges and who are more or less interested in the official publication of the college on which their children are in attendance. Dr. Alfred M. Lee, Sterling Fellow in Sociology at Yale University, at the Conference of Eastern College Newspaper Editors, at Smith College, Feb. 24, 1934, stated that the inaccurate notions generally held regarding student life in eastern colleges had arisen and persisted largely because of the unprogressive nature of college newspapers, magazines, or whatever they may be called in the individual institution. Dr. Lee referred particularly to the student news publications at Bryn Mawr, Smith College, Yale University, Mt. Holyoke, Vassar, Harvard, Princeton, and Dartmouth. He scored the extent to which college publications were "padded" and their featuring of unimportant facts. That some times the northern and eastern schools forget there are good colleges west of the Alleghenies and in the South. From time to time some of the college publications should be censured for unwarranted attacks and criticisms should the particular institution and its policies not be to their liking; throttling too frequently features and activities of the students which should be con-

denmed. The youth of today must be served, but youth must bear in mind its responsibility to parents, state, and nation, and remember that they are laying the foundation for proper placement in the affairs of the country. Education is of no value unless it instills into the students culture, state and national fulfillments, to the end that they will best serve their country and humanity.

PROGRAM OF THE PHILADELPHIA HEART ASSOCIATION

An intensive demonstration in the latest methods of diagnosing and treating heart disease will be held under the auspices of the Philadelphia Heart Association, in Philadelphia, on May 15 to 18, inclusive.

A registration fee of \$5 will be charged for this demonstration. A copy of the program is given below.

Physicians wishing to register should notify Miss Helen E. Heikes, executive secretary, Philadelphia Heart Association, 311 S. Juniper St., Philadelphia, Pa.

Tuesday, May 15, 1934

(Daylight Saving Time)

9:00 a.m.-12:00 m.

Department of Pathology, U. of P. Laboratory.
36th and Hamilton Walk (1 block south of Spruce St.)

9-10:30 a.m.

Edward B. Krumhaar, professor of pathology, U. of P. School of Medicine.

Subject: "General Pathology of the Heart."

10:30 a.m.-12 m.

John Eiman, pathologist, Abington Memorial Hospital.
Subject: "Special Pathology of the Conducting System and Coronary Arteries."

12 m.-1:00 p.m.

H. C. Bazett, professor of physiology, U. of P. School of Medicine.

Subject: "Use of Blood Pressure to Estimate Cardiac Output."

Department of Physiology (Room No. 136).

2-3:30 p.m.

Eugene Pendergrass, assistant professor of radiology, U. of P. School of Medicine.

Subject: "The Value of the Roentgen Examination in the Study of the Heart and Great Vessels."

Department of Radiology, U. of P. Hospital
34th and Spruce Sts.

3:30-5:00 p.m.

Carl F. Schmidt, professor of pharmacology, U. of P. School of Medicine.

John Reisinger, instructor in pharmacology, U. of P. School of Medicine.

Subject: "Action of Certain Drugs on the Heart."
Department of Pharmacology.

Wednesday, May 16, 1934

9:00 a.m.-1:00 p.m.

Jefferson Medical College Hospital.
First Floor Clinical Amphitheater (entrance on Sansom St.)
10th and Sansom Sts.

9-9:40 a.m.

Ross V. Patterson, dean, Jefferson Medical College.
Subject: "The Clinical Approach to Cardiac Affections."

9:40-10:20 a.m.

Edward J. G. Beardsley, clinical professor of medicine, Jefferson Medical College.

Subject: "Familial Rheumatic Fever."

10:20-11:00 a.m.

Thomas McCrae, Magee professor of practice of medicine and clinical medicine, Jefferson Medical College.
Subject: "Discussion, Syphilis of the Heart."

11-11:40 a.m.

Henry K. Mohler, associate professor of medicine, Jefferson Medical College.

Subject: "Heart Block."

11:40 a.m.-12:20 p.m.

David W. Kramer, assistant professor of medicine, Jefferson Medical College.

Subject: "Discussion of Various Methods of Investigating the Circulation of the Blood in the Extremities." Presentation of Patients.

12:20-1:00 p.m.

Edward L. Bauer, professor of diseases of children, Jefferson Medical College.

Subject: "The Diagnosis and Management of Various Types of Heart Lesions Occurring in Children."

2:00-4:00 p.m.

S. Calvin Smith and Thomas M. McMillan, associate professors of cardiology, Graduate School of Medicine, U. of P.

Subject: "Demonstration and Discussion of Electrocardiography in Diagnosis and Treatment of Heart Disease."

Philadelphia General Hospital, 34th and Pine Sts.
(Heart Station.)

4:00-5:00 p.m.

Leonard G. Rowntree, director, Philadelphia Institute for Medical Research.

Subject: "Present Status of Our Knowledge of Hypertension."

Philadelphia General Hospital, 34th and Pine Sts.
(Main Clinic.)

6:30 p.m.

Gertrude Jackson Chandlee, physician in charge of the Joseph Sailer Cardiac Clinic, Philadelphia General Hospital.

Subject: "Demonstration of Adult Heart Clinic."

Thursday, May 17, 1934

9:30 a.m.-1 p.m.

Pennsylvania Hospital, 8th and Spruce Sts.
(Chapel)

9:30-10:30 a.m.

Joseph P. Vander Veer, resident in cardiology, Pennsylvania Hospital.

Subject: "Clinical Comparison of Whole Leaf and Purified Glucoside Preparations of Digitalis."

10:30-11:30 a. m.

William D. Stroud, professor of cardiology, Graduate School of Medicine, U. of P.

Subject: "Treatment of Cardiac Arrhythmias."

11:30 a. m.-12:15 p. m.

James E. Talley, emeritus professor of cardiology, Graduate School of Medicine, U. of P.

Subject: "Cardiovascular Phenomena of Thyroid Disease."

12:15-1:00 p. m.

George C. Griffith, assistant professor of cardiology, Graduate School of Medicine, U. of P.

Subject: "Hypertensive Cardiovascular Disease."

2:30-5:30 p. m.

Temple University Hospital, Broad and Ontario Sts. (Erny Amphitheater)

2:30-3:00 p. m.

Hugo Roesler, associate professor of radiology, Temple University Medical School.

Subject: "Clinic on the Diagnosis and Treatment of Chronic Pericarditis."

3-3:30 p. m.

Mary H. Easby, instructor in medicine, Temple University Medical School.

Subject: "Clinic on Heart Disease and Pregnancy."

3:30-4:00 p. m.

O. Spurgeon English, clinical professor of psychiatry, Temple University Medical School.

Subject: "Clinic on Emotional Life in Relation to Heart Disease."

4:00-4:30 p. m.

Gerald H. Pratt, clinical assistant in surgery, Temple University Medical School.

Subject: "Clinic on Thyroidectomy in Angina Pectoris and Congestive Heart Failure."

4:30-5:00 p. m.

Joseph B. Wolfe, associate professor of medicine, Temple University Medical School.

Subject: "Clinic on the Etiology and Treatment of Angina Pectoris."

5:00-5:30 p. m.

W. Edward Chamberlain, professor of radiology, Temple University Medical School.

Subject: "Roentgen Diagnosis of Tumors of the Mediastinum and Pericardium as Differentiated from Aneurysm of the Aorta and Cardiac Enlargement."

Friday, May 18, 1934

9:30 a. m.-12:30 p. m.

University of Pennsylvania, 34th and Spruce Sts.
Robinette Foundation—Third floor Maloney Clinic.

9:30-10:30 a. m.

Alexander Margolies.

Subject: "Angina Pectoris—Symptoms and Differential Diagnosis."

10:30-11:30 a. m.

Francis C. Wood.

Subject: "Coronary Occlusion—Symptoms and Differential Diagnosis."

11:30 a. m.-12:30 p. m.

Charles C. Wolferth.

Subject: "The Clinical Picture of Coronary Artery Disease."

Motors will meet physicians to take them to the Children's Heart Hospital in which luncheon will be served.

2:00-4:00 p. m.

Children's Heart Hospital.

2:00-3:00 p. m.

Francis Q. Thorp.

Subject: "Report of Results of Intravenous Streptococcus Vaccine, in Children with Rheumatic Cardiovascular Disease."

3:00-4:00 p. m.

William D. Stroud and Francis C. Wood.
Ward Rounds.

MEDICAL RELIEF PROGRAM IN PENNSYLVANIA

ALLEN R. ECKMAN*

High praise for the medical relief program of the State Emergency Relief Board and the work of The Medical Society of the State of Pennsylvania being carried on through the Emergency Child Health Committee was given recently by Dr. Paul Henry De Kruif, popular writer about medical and scientific subjects.

Dr. De Kruif, who has just completed a survey of many states to determine the effects of the recent depression upon public health, said that the operation of these units in behalf of preventive health work will confer on the people of this Commonwealth a benefit that will be felt for ages to come; and that the example set by Pennsylvania ought to be an inspiration to every other state in the Union. In connection with the survey, Dr. De Kruif said he had been so alarmed at his findings throughout the country that he considers now the time to "blow off the lid and tell the public of the new peril" which is the outcome of "an idiotic desertion of public health defenses and imbecilic dislocation of modern life," that have come about as a result of the depression.

Recently Dr. De Kruif was in Philadelphia conferring with Alexander Fleisher, vice chairman of the Emergency Child Health Committee and executive secretary of the Child Health Society. He was enthusiastic both over the medical work of the State Emergency Relief Board, of which Eric H. Biddle is executive director, and the preventive health work of the Emergency Child Health Committee, of which Dr. Samuel McClintock Hamill, of Philadelphia, is chairman.

"They are giving tremendous service for public good," he said, "and a vitally necessary one for the conservation of the health of the present and certainly of the future generations." He added that his own survey had revealed "startling evidence of a widespread breakdown," in the health of both children and adults.

"Malnutrition," he said, "was encountered in alarming numbers. In a number of the states, 30 per cent of the people were undernourished; 50 per cent needed attention to tonsils and adenoids; and 55 per cent were in need of dental work.

"In the face of this, I was thrilled to learn that the organized medical profession in this State has awakened

* Manager, Public Relations, Pennsylvania State Emergency Relief Board.

to a man to its social responsibility and is now assuming the leadership by ferreting out and treating thousands of undernourished and ailing children whose parents are unable to pay for such services.

"This work was recommended a year ago by The Medical Society of the State of Pennsylvania and received the approval of the Governor. Under the leadership of the Emergency Child Health Committee appointed by the Governor on recommendation of the State Medical Society, their program was inaugurated in February, 1933, and has coöperated with the medical relief program of the State Emergency Relief Board since its inauguration in December, 1933.

"Physicians, dentists, and nurses by the hundreds are volunteering their services. In addition, thousands of lay people, specially equipped men and women, dietitians, and others are flocking to the cause, paying their own expenses and giving many hours a week of their time.

"I understand that in all the 67 counties in Pennsylvania medical care is organized and in more than half the counties preventive work is in full swing through county medical societies. It is the first evidence I have found in which medicine is trying to remedy this tragic derangement which permits a famine in the midst of plenty.

"At the present time, I am told by Dr. Harold A. Miller, Director of Emergency Medical Relief of the State Emergency Relief Board, not a single person in Pennsylvania on relief, even in the most remote rural districts need be denied necessary medical care at the hands of physicians of their own choosing.

"The Medical Society of the State of Pennsylvania is enthusiastically interested in that work and is intensely desirous of seeing the program a success. The medical relief program begins with the expectant mother, continues through her period of confinement, is in attendance at the time of birth of the child, and does not relax its vigilance later.

"It includes an agreement by the relief administration to recognize within legal and economic limitations the traditional family and family-physician relationship in the authorization of medical care for unemployment relief beneficiaries in their homes; the traditional physician-nurse relationship in the authorization of bedside nursing care; and the traditional dentist-patient relationship in the authorization of emergency dental care. The same is true of the preventive health program.

"The common aim is the provision of good medical service and preventive care at a low cost—to the mutual benefit of the unemployment relief beneficiary, physician, nurse, dentist, pharmacist, and taxpayer.

"One can see what this means coming as it does in the wake of one of the most stupid depressions in the world's history. Former depressions sprang from actual famines. In this depression there is no famine; on the contrary, there is an overabundance of everything; food, clothing, goods of all kinds, and doctors and nurses. Yet people are living half-starved and without adequate medical care and supervision because of the imbecilic dislocations of modern life.

"There is enough of science and material goods to transform the world if they can be utilized by the masses. Yet doctors have been driving taxicabs and swelling the relief rolls while tens of thousands of children are ailing. There is an overabundance of food while untold thousands of children are undernourished. Public health departments cut their staffs just as the need for them was the greatest.

"One county in Pennsylvania in 1930 had 90 dentists,

all earning a living from the practice of dentistry alone. In 1933, only 30 of the 90 were practicing dentistry exclusively; 30 more of them practiced dentistry in connection with some other job; the remaining 30 had disappeared from the ranks of the profession because they were unable to earn their living at that practice.

"Statisticians will produce all kinds of figures to prove that the death rate is declining. Those figures are grossly misleading. What we are still enjoying is the momentum in improved public health gained during the fat years. Death statistics do not record morbidity; they do not touch upon the prevalence of illnesses and ailments; even health statistics do not record those ailments which follow in the wake of malnutrition and broken health. Furthermore, I would venture to say that fully 30 per cent of the decline in the death rate is due to a heavy decline in the birth rate. This is a matter of record.

"The splendid example now being set by interested and determined professional and lay people in Pennsylvania ought to be an inspiration to all other parts of the country."

MILBANK PLAN FOR MEDICAL CARE

A plan of medical care for the American people, providing for more extensive prevention and treatment and more adequate payment for private physicians, will be proposed for public consideration as the result of present studies by the Milbank Memorial Fund, according to its annual report.

The undertaking by the Milbank foundation was decided upon, states the secretary, John A. Kingsbury, in the introduction to the report, following the "meager proposals" offered by the Committee on the Costs of Medical Care "to meet the recognized deficiencies." The task of the Committee having been left unfinished, the Milbank Memorial Fund determined to carry on the study to a point at which a thoroughgoing, well-rounded program might be proposed for consideration. A summary of deficiencies in the medical care of the population and a clear-cut statement of the underlying problems constituted the first step. The second was "a critical appraisal of voluntary experiments in providing medical care for the United States, medical practices under Workmen's Compensation Laws, and the accumulated experience of health and sickness insurance in European countries." The third step, according to the report, will be an attempt to discover the principles and standards upon which state-wide programs might be based. There will be a presentation of "various kinds of action which may be taken according to local facilities for furnishing medical service and local abilities to pay the costs."

Groups of physicians, dentists, nurses, and other experts are assisting the Milbank staff and boards of counsel, which also include many physicians, in the task of outlining the proposed program. Two volumes to contain the results of these studies and the new proposals will be published by the Milbank Memorial Fund during this year, it is announced. In charge of this work is Edgar Sydenstricker, the Fund's director of public health activities, who is assisted by Dr. I. S. Falk, formerly associate director of study for the Committee on the Costs of Medical Care.

The expenditures of the Milbank Memorial Fund for all purposes in 1933 totaled \$390,987.56, raising the aggregate appropriations of the foundation since its establishment in 1905 to \$9,716,567.56. The bulk of this money has been used in aid of public health activities;

most of the remaining has been given for social welfare and education. Among the direct beneficiaries last year were: The Mulberry Health Center, East Harlem Nursing and Health Service, Judson Health Center, The New York Academy of Medicine, the Bellevue-Yorkville (New York City) Health Demonstration, the Committee on Neighborhood Health Development, the Department of Public Health Nursing, Syracuse University, the Edward L. Trudeau Foundation, and the Welfare Council of New York City.

Referring to local activities in social welfare, the report gives an account of aid to the projects of 7 other organizations in which the foundation participated "both for the immediate relief of economic suffering and for the promotion of constructive social measures intended to prevent the recurrence of similar catastrophes in the future."

Although the benefactions of the foundation are as a rule limited to America, more especially the State of New York, some grants have been made for aid and experimentation in foreign countries. Last year, for the fourth consecutive year, financial aid was given to the Department of Health in Ting Hsien, China. In previous years assistance has been given to child welfare work in Yugoslavia.

In collaboration with the United States Public Health Service and the international health organization of the League of Nations the Milbank foundation is completing a nationwide appraisal of the health of population groups as affected by the economic depression.

After analyzing the various types and policies of American philanthropic foundations, the report characterizes the Milbank Memorial Fund as "a foundation that seeks a solution rather than the alleviation of a situation." It is "gradually becoming more of an operating agency than a donor of money, and engages in constructive activities selected as most needed and fruitful by the most competent counsel." The Fund coöperates directly and indirectly with other organizations, both official and voluntary, including local, state, federal, and international bodies, says the report. It is advised by "groups of distinguished counselors and has gradually added a competent technical staff to its resources . . . No project or research involving medical technic has been carried on except with medical participation. A large proportion of its boards of counsel are physicians and several of its staff have medical degrees."

COMMENTS AND EXCERPTS

Science and Research

Dr. Walter V. MacGivra, a dental surgeon of the Harvard University Dental School, announced to the American Association for the Advancement of Science a means of quickly reversing the deep unconsciousness caused by ether and other anesthetics. Miss Pearl L. Moorman, a nurse-technician, in charge of the Duncan Medical Laboratory and supervisor of the city's public health department and Freeman Hospital, Joplin, Mo., is the discoverer of palinesthetic, reversing anesthesia. The Harvard scientists have demonstrated the effectiveness of this new medical method, after reading an account by Miss Moorman of the success of the method in restoring laboratory animals that were near death from anesthesia. The method, which consists of injecting a weak solution of hydrochloric acid into the veins of the patient, has been used successfully on eight human patients, each time with striking results. Dr. MacGivra believes that injections of weak hydrochloric acid will

prove effective in rescuing and bringing back to full use of the faculties, those who suffer from extreme alcoholic intoxication, asphyxiation, near drowning, severe electric and other shocks, in addition to those purposely induced anesthetic states caused by drugs.

Dr. Clive M. McCay, of Cornell University, has discovered a use for the cockroach. Insects, Dr. McCay points out, can be kept in larger numbers in a laboratory space, and since the cockroach is omnivorous, and thrives perfectly under ordinary house or laboratory conditions it makes an ideal test animal. Because of the small quantity of food the cockroach requires it is less expensive to use in making tests and the tests may be more sensitive, or micro-tests.

According to *Science News Letter*, a method for obtaining pure vitamin B₁ in large quantities has been developed by Drs. R. R. Williams and Walter H. Eddy, of Teachers College, Columbia University. Chemical details of the method are given in a report to the Carnegie Institution of Washington just made public. By this method, yields of from 250 to 300 mg. of vitamin in crystalline form have been obtained from 50 kg. of rice polish, representing a yield 5 to 15 times as great as that obtained heretofore by investigators.

Dr. H. Meltzer, of the St. Louis Psychological Service Center, has discovered that children who stutter are more talkative and use more words when they do talk than do children in an average group. Children who stuttered were found to use 200 words in contrast with the 135 words used by a child of the average control group. To quote Dr. Meltzer: "If the number of words used in the total time taken is considered as an index of rate of talkativeness, the mean rate of talkativeness, the mean rate for stuttering children is 51.08 per cent greater than it is for the control group."

Drs. D. H. Wenrich, R. M. Stabler, and J. H. Arnett, of the University of Pennsylvania, as a result of a survey of 700 freshmen entering college in 1931 and 1932, conclude that minute animal parasites, some of them the kind of ameba that caused dysentery which was reported as epidemic and took death toll in Chicago, 1933, are more widespread than is usually believed. Of the survey, a single examination made for each person, showed that about 1 in 20 harbors the *Endameba histolytica*, which causes the amebic disease. Five or more examinations would be required to determine the actual percentage, so that probably about 10 per cent of those examined harbor these parasites. Most of those with the parasites are not ill, but may through carelessness become carriers and infect others.

Under the leadership of Dr. W. A. Sawyer, medical research scientists of the Rockefeller Foundation have been working on vaccination technic to protect humans against yellow fever. In 1931, at the time the announcement was made of the production of a vaccine against yellow fever, it was not known for how long a period immunity caused by the inoculations would last. Experience shows that it will last at least two years. At present it is possible adequately to protect missionaries, government officials, and scientists, those most in danger, against yellow fever, though it is not yet practical to protect the entire population. Dr. Sawyer, and his colleagues at the Rockefeller Institute, Drs. S. F. Kitchen and W. Lloyd, are working to make the injections less difficult and less costly in human blood.

Prof. F. Joliot and Mme. Irene Curie-Joliot have produced artificial radioactivity. This is the first time that

radioactivity has been produced by an external cause. Experiments to confirm the work of the Joliot's are being made in the Cavendish Laboratory, Cambridge University, England. The artificial radioactivity produced by the Joliot's consists of obtaining positive electrons from bombardment of boron with alpha particles. For many minutes after the bombardment ceases, the activity of disintegration continues. It is the hope of the physicists that through artificial radioactivity medically useful radiation will be produced.

MEDICAL ECONOMICS

Control of Dispensary Abuse.—In the *Weekly Roster and Medical Digest*, Jan. 6, 1934, is published an outline of a plan to control dispensary abuse, furnished by Mr. Melvin R. Sutley, superintendent of the Delaware County (Pa.) Hospital. Reports from several members of the staff of the Delaware County Hospital are in agreement with that of Mr. Sutley that the plan has functioned successfully since the clinic was opened five years ago. The plan follows:

1. Patients applying to the emergency ward for treatment receive full emergency treatment without consideration of their financial ability to pay. As soon as treatment has been rendered, the patient is requested to pay a fee; the amount of this is based upon that which a general practitioner might be expected to receive if the patient had gone to his private office. If the patient pays, or if he states he does not have the money with him, and requests that a bill be sent him, he is then given a slip setting forth the accident ward diagnosis and treatment, which he is requested to take to his family doctor for subsequent attention. If he gives the name of his family physician, the hospital by letter informs the physician that emergency treatment has been administered, and that the patient has been advised to return to him for further attention.

2. Every patient treated in the emergency ward is given a bill to cover the service rendered, and if the bill is immediately paid, it is receipted. If the patient states that he cannot afford to pay, his word is accepted in the emergency ward, but he is requested to sign on the duplicate of the bill, as presented, that he is financially unable to pay the amount demanded. If the dispensary doctor decides he should have further treatment, such patient is told to report to the appropriate outpatient clinic.

3. If the patient treated in the emergency ward is found to need immediate hospital attention, he is asked to state the type of hospital accommodation he can afford; if unconscious at the time of admission, he is placed in the ward. If later he asks for a private or semiprivate accommodation, and his family physician has not yet seen him, he is transferred to a private or semiprivate room, at which time he, or a responsible member of his family, is required to sign a statement that he will pay the fee to be charged by his private physician, which fee, of course, is not included in the hospital charge. All arrangements for payment of medical or surgical service are made directly between the family physician and the patient.

4. If the patient is admitted to the ward, the credit worker, as soon as practicable, interviews the patient, or a member of his immediate family, in order to (a) ascertain whether the patient can actually afford a private or semiprivate room, and pay the fee for the services of a private physician, and (b) if the patient is properly a ward case, the credit worker ascertains the

amount, if any, that shall be charged to the patient for such ward service.

5. Ambulatory patients treated in the emergency ward, who claim that they cannot pay for the services of a family physician, are referred to the appropriate clinic; these patients, and all other patients originally applying to the outpatient clinic, are interviewed by a credit worker prior to being seen by the clinic physician. If, in the opinion of the credit worker, a patient can afford to pay for the services of a private physician, admission to the clinic is refused, on the grounds of his ability to pay the hospital for medical service. If the patient is classified as a clinic patient, he may attend the proper clinic. In this event the patient, or a member of the family if the patient is a minor, is required to sign a statement certifying to the fact that he is unable to afford the services of a private physician. The signing of this statement protects the hospital from future accusation of bad faith by patients who might have deceived the credit worker as to their financial status.

6. The hospital considers it the duty of physicians attending patients in the clinics to report to the credit worker every instance in which the physician believes that the patient being treated is financially able to pay for the services of a family physician. Such cases are reviewed by the credit worker, whose decision is then considered final. Letters from physicians, the clergy, or the general public, while given consideration by the credit worker in making a decision, cannot be considered as conclusive.

To quote from a statement concerning the submitting of this plan, as made by the Commission on Medical Economics, of Philadelphia County Medical Society:

"This plan is not submitted with the thought that it should supplant the requirements laid down by the Philadelphia County Medical Society through its Commission on Medical Economics, but is herewith presented to show how hospital dispensaries can be regulated through a coördination of effort embracing the Superintendent, the Social Service Department and the members of the Staff in order (1) that every patient shall receive the type of service which he can afford and for which he should be required to pay; (2) that the hospital be protected from financial loss on account of supplying free service to patients able to pay for private or semiprivate accommodations; and (3) that there shall be returned to the members of the staff and to physicians practicing in the community legitimate sources of income which have been so frequently lost through carelessness in the management of hospital dispensaries."

"We would emphasize particularly that 'The hospital considers it the duty of physicians attending patients in the clinics to report to the credit worker every instance in which the physician believes that the patient being treated is financially able to pay for the services of a family physician.'"

Collective Medicine.—Dean William C. Rappleye, Columbia University School of Medicine, in his annual report to President Nicholas Murray Butler, has something to say about the change which he predicts will take place in the field of medicine. He is of the opinion that our national economic and political activities are undergoing basic changes. This will require collective planning in many fields of industry and finally in medicine.

He contends that the far-reaching ideas of collective responsibility, which are rapidly gaining foothold, will have an influence which will vitally affect the physician. It will have a distinct bearing on the medical profession

and the physician as an individual. It will rearrange the entire picture which has previously existed in the care and treatment of the ill.

In view of the broad changes which are taking place, there will be much confusion. He feels that the growth of collective bargaining and the increased power of the government in the conduct of national affairs will bring radical changes in medical practice. He does not prophesy what direction these changes will take, but he feels that they are inevitable.

He urges that the entire matter be given careful consideration. He feels it imperative, in view of the changing conditions, that there be sound planning and proper direction and guidance, in order that plans for proper medical service can be properly worked out.

We believe that Dean Rappleye's injunctions are worthy of careful consideration. We have long suggested that there is a more intimate relationship between economics and medicine, social systems and medicine, than has generally been accepted. It is high time that the medical profession know what is going on in the field of sociology and economics, so that the relationship between medicine and the community could be worked out beforehand, rather than be made to fit in haphazardly with situations as they rise.—Editorial, *Medical Record*, Jan. 3, 1934.

Hospital Economics Committees' Meeting.—On Feb. 6, 1934, the Hospital Economics Committees, in response to an invitation issued by the Commission on Medical Economics of the Philadelphia County Medical Society, met at the Philadelphia County Medical Society Building, to discuss certain aspects of medical economics involving the relation of staff members to their governing body, and their contacts with the patients in the dispensaries and in the hospital, and to consider in detail certain recommendations made by the Commission on Medical Economics, and approved by the Board of Directors of the Philadelphia County Medical Society.

Hospital Economics Committee members representing the following hospital staffs were present: Jefferson, Frankford, Woman's, Jewish, and Presbyterian.

In addition, unofficial representatives were present from the following hospitals: Stetson, Northeastern, St. Joseph's, St. Mary's, and Abington.

The opening address was made by Dr. Francis A. Faught, who explained the object of the meeting and extended the following warning:

"It is unlikely that even those whose interest in medical economics is shown by their presence here realize either the extent or the power of the forces that are now endeavoring to introduce some form of voluntary or compulsory health insurance as the entering wedge for the complete socialization of medical practice."

In order to bring the matters for consideration squarely before the meeting, brief papers were read by the chairmen of the following sections: Section on Counter Prescribing and Dispensing Practice, Douglas Macfarlan; Section on Workmen's Compensation, Moses Behrend; Section on Encroachment of Lay Workers on Professional Field, Edward W. Beach; Section on Dispensary Abuses and Social Service Departments, L. Waller Deichler; Section on Hospitalization Abuses, Charles A. Heiken; Section on Contract Practice, Gordon Saxon; Section on Medical Representation on Hospital Boards, R. W. Larer.

John T. Farrell, a member of the Commission, then spoke on the value of a closer organization between hospital staffs and lay boards of directors, citing the

recommendations made by the American College of Surgeons, in the model by-laws of hospitals which that organization provides.

Dr. Francis F. Borzell, also a member of the Commission, stressed the psychologic effect upon the work of hospital staffs by reason of the control of medical policies of hospitals by the staffs themselves.

Jewish Hospital

William H. Teller, representing the Economics Committee of the Jewish Hospital, stated that several months ago a committee had been appointed from his staff (Drs. William H. Teller (chairman), A. I. Rubenstone, C. J. Stamm, B. Cohen of the Majority Staff, and M. Jacobs of the Associate Staff) to draft resolutions requesting, first, representation on the Board of Managers; second, asking power to control the medical policy of the hospital and jurisdiction over the nursing school. These requests have been granted.

Many other questions were written in concrete form for presentation concerning the right of physicians to charge for certain types of hospital treatment and the Board of Managers has assured the staff that as many of these recommendations will be approved as is possible by a hospital carrying a deficit.

Speaking of prescribing of drugs, Dr. Teller stated that the average student knows little or nothing about it and suggested that the professors of the teaching institutions be informed that the students should be given a more rigid preparation in the field of pharmacology, materia medica, and therapeutics. He stated that this would result in improved practice, higher ethics, and better economics.

Dr. Teller assured the Commission of the coöperation of the staff of the Jewish Hospital.

Woman's Hospital of Philadelphia

Dr. D. Case-Blechsmidt, representing the Economics Committee of the Woman's Hospital of Philadelphia, reported that her hospital has compiled a list of drugs other than proprietary and that their interns have been carefully instructed to use them; that the staff of the hospital has an executive member who meets regularly with the Board of Incorporators and that fine coöperation exists between the 2 bodies.

Jefferson Hospital

Dr. J. Torrance Rugh, chairman of the Economics Committee, reported that Jefferson Hospital has a staff committee which coöperates with the Board of Trustees. He further stated that the endowment of beds by the Teachers' Association was made with the understanding that the patients would receive free medical treatment.

Dr. Henry K. Mohler, member of the Committee on Economics of the Jefferson Hospital, stated that such an organization has been in force for 15 years; that their interns are taught to prescribe the inexpensive drugs and that the lists are made in cipher in order that the drug houses will not pirate them. He warned that the drug houses would secure and use such lists if published unless they could in some way be copyrighted.

Presbyterian Hospital

Dr. William C. Ely, representing the Medical Economics Committee of the Presbyterian Hospital, stated that the staff was organized and in working order. He further stated that publicity should be given to the laity informing them that staff doctors working in hospitals do not get paid. He stated that doctors should have the privilege of charging ward patients who pay full ward

rates—viz., That if they pay one dollar it is fair to treat them for nothing, but if they pay three dollars they should pay the physician.

Dr. Teller, in discussion, stated that the Jewish Hospital was trying to establish a \$3.50 ward rate, giving the physician the privilege of charging the patient for medical care. He thought this met with the approval of the hospital but that at present it could not be done for lack of space.

Frankford Hospital

Dr. Francis F. Borzell, a member of the Commission and also a member of the Committee on Economics of the Frankford Hospital, stated that the staff of this hospital had adopted the by-laws of the American College of Surgeons and that the matter was now pending approval by the Board of Trustees. Further, that the staff had asked the trustees for the privilege of charging patients who pay full ward rates and that the matter was now in conference. If the medical problems of every hospital were supervised by the staff the hospital would receive the moral support of the medical profession at large.

Dr. Ely, in discussion, stated that at the Presbyterian Hospital the physicians were instructed to charge the patients in endowed rooms except in the case of teachers whose contracts provided for free medical care.

Dr. Teller stated that at the Jewish Hospital they have 7 endowed rooms and the physicians are privileged to charge patients in all but 2 of them. In these cases the physician who sends the patient must state that the patient cannot afford to pay.

Stetson Hospital

Dr. Stephen E. Tracy, representing Stetson Hospital, assured the Commission of the coöperation of the staff.

Northeastern Hospital

Dr. T. Turner Thomas, representing Northeastern Hospital, stated that the staff will shortly appoint a committee on economics. That ward patients pay full ward rates and that if Frankford Hospital allows the physicians to charge these patients he feels certain that the Northeastern will do likewise.

St. Joseph's Hospital

Dr. V. R. Manning, representing St. Joseph's Hospital, stated that full coöperation would be had from their staff.

St. Mary's Hospital

Dr. Manning stated that in St. Mary's Hospital they have an advisory committee which acted as a liaison between the staff and the Board of Directors; they have no social service department; that some patients who report for prenatal care are much better dressed than some of those whom they treat in their homes and who are able to pay; that the occupations of the dispensary patients are not always listed and this led to abuses; that the most abused clinics are the Eye Clinic and the Maternity Clinic.

He also stated that patients and interns both use too many proprietary drugs; and that there appears to be something wrong with the method of teaching materia medica and therapeutics in colleges since the graduates do not know how to prescribe U. S. P. and N. F. drugs and do not know how to write prescriptions.

Abington Hospital

Dr. Louis S. Dunn, representing the Abington Hospital, stated that their problems are different from City Hospitals; that physicians refer cases and it is hard to control the situation regarding ward patients.

Dr. Deichler stated that rules and regulations governing the medical economics recommendations of the Philadelphia County Medical Society should be presented to all hospitals; that all complaints of lack of coöperation should be sent to the Commission. He stated that a group of physicians are now making a charge of \$3 for refracting and \$3 for glasses to the patients of limited means; he asked all doctors to coöperate by making nominal charges when necessary.

Dr. Seth A. Brumm, president-elect of the Philadelphia County Medical Society and a member ex-officio of the Commission on Medical Economics, stated that it was illegal for a hospital to charge a flat rate for an obstetric case. He amplified this by saying that there was no thought on the part of the County Society to bring any hospital to the bar for such practice, but that he advises extreme care in handling such cases.

Dr. James B. Mason, of the Presbyterian Hospital, stated that Dr. Ely did not touch fully on the outpatient department; that in this department if there is any question regarding admission of a patient, the case is turned over to Dr. Mason, who goes over the record with the Social Service Department. He stated that he has turned many patients back to the family physician (or perhaps to other dispensaries).

Dr. Faught in closing the meeting stated that to solve the many economic problems the support of the entire profession must be given and that it must be given fearlessly. A library of Medical Economics is being formed in which he wanted every one to assist by sending to the Committee any article which they may read in a lay journal or furnish the reference in order to enable the Commission to secure it.—*The Weekly Roster and Medical Digest*, March 3, 1934.

Additional Articles on Medical Economics

- Medical Relief Program in Pennsylvania—p. 589.
- Milbank Plan for Medical Care—p. 590.
- Tuberculosis Abstracts—p. 601.
- Summary of Pennsylvania Poor Relief Laws Affecting Care of Indigent Sick—p. 604.
- Medical Service to the Chronically Indigent—p. 607.
- Dauphin County—p. 612.
- Lackawanna County—p. 614.
- Mifflin County—p. 620.
- Montour County—p. 621.
- Warren County—p. 625.

PHYSICAL THERAPY

Physical Therapy as an Aid in Neurosurgery.—According to an article by Winchell McK. Craig, published in *Physiotherapy Review*, many neurologic and neurosurgical lesions result in temporary or permanent paralysis caused by interference with the conduction of the nerve impulse to a muscle or group of muscles. This interruption may be central within the brain or spinal cord, or peripheral in the nerve plexuses and nerves after they have left the spinal cord.

The nonoperative and postoperative treatments in general should be directed toward preventing overstretching of paralyzed muscles by maintaining the limbs in a suitable posture, preventing adhesions between the tendons and their sheaths and in their periarticular struc-

tures, and finally should maintain nutrition in the paralyzed areas. Suitable postures are readily attained by the use of splints but complete and continuous immobilization of certain parts of limbs should be avoided to prevent adhesions. Large joints are not so likely to become stiff during fixation, but small joints, especially those of the wrist and fingers, must be given freedom of movement, assisted by daily active or passive exercise. Nutritional treatment is highly important because the restoration of function of the muscles, or group of muscles, is greatly facilitated by having their physical condition at as high a level of nutrition as possible while the nerve impulse is being restored. Heat, as a hot bath, is a most useful aid and easily available; if trophic ulcers are present, radiant heat may be used instead. Massage, which must be regular and methodical, not only improves the tonus but removes from the whole area products of metabolism which may accumulate as a result of lack of motion and a sluggish blood supply.

Electric stimulation of the paralyzed muscles is of value in maintaining a maximal physical condition, if it is applied at the proper time in the convalescence of the muscle or group of muscles.

Improved circulation resulting from physical therapy measures is of great benefit, although clinically there seems to be some evidence that the effect produced by various measures differs somewhat. For instance, a sinusoidal current is supposed to have some direct action on the metabolism of the muscles, but it has been observed that by adding massage to the application of the current the appearance and nutrition of the part affected has been greatly improved. On the other hand, it has been observed that the use of sinusoidal current in a case in which massage has been given, has been followed by great improvement in circulation. It is possible that those two forms of treatment act somewhat differently and perhaps complement each other.

Physical Therapy of Neuralgia of Brachial Plexus.—Farneti reports his experiment with infrared and ultraviolet rays, light baths, and diathermy in 42 patients. He obtained better therapeutic results with erythema doses of ultraviolet rays in essential or idiopathic neuralgia of the brachial plexus due to deforming osteo-arthritis of the cervical segment of the spine. The author has introduced a modification in the technic of diathermy of the cervical column and the brachial plexus: The patient reclines on a physical therapy table with raised back. A rectangular electrode measuring about 8 or 12 cm. is placed on the cervical segment of the vertebral column with its longer side in a transverse direction, adapted to the form and dimensions of the nuchal region and held in place by a sand bag. Instead of the sand bag a fairly long elastic bandage may be used which encircles the neck, passes under the axilla, and is knotted at the back. This nuchal electrode, which constitutes the active electrode, is connected with a pole of the apparatus. Two other rectangular electrodes, from 9 to 18 cm. in size, are applied to the middle third of each arm and are connected to the other pole of the apparatus; these, which are larger than the nuchal electrode, constitute the negative electrode. In this way, 2 currents run from the middle of the arms and converge on the cervical segment, at which the active electrode is placed and where in cases of arthritic alterations of the cervical segment the greatest quantity of diathermic heat is desired. This method is also applicable to unilateral neuralgia in which, by applying an electrode to the healthy arm, a more unified diffusion of

diathermic current is obtained on the cervical portion. The author concludes that: 1. The diathermic currents and ultraviolet rays possess a more efficacious therapeutic action in comparison with light rays, infra-red rays and light baths. 2. The best therapeutic action was obtained by treating the essential neuralgic forms of osteo-arthritis of the cervical segment of the vertebral column with diathermy carried directly to the cervical vertebra. 3. Regarding the mechanism of action of ultraviolet rays in the treatment of neuralgia of the brachial plexus, the best theory is that of a reflex stimulation which modifies the circulation in the nutrient vessels of the nerve assisted by a general action of humoral nature.—Abst. in *J. A. M. A.*

New Apparatus Aid to Diabetics.—A new apparatus for inducing better blood flow in the lower extremities of sufferers from diabetes or from arteriosclerosis and Buerger's disease has been developed through researches of the Robinette Foundation of the Hospital of the University of Pennsylvania. In a number of instances it has made unnecessary amputations which otherwise would have been unavoidable.

The medical profession has been informed regarding this new apparatus in a paper published in the *Journal of Clinical Investigation*, by Dr. Eugene M. Landis, associate in medicine, and Dr. John H. Gibbon, Jr., research fellow, on the staff of the Robinette Foundation.

The new apparatus provides an automatic method by which suction and air pressure are applied in alternation to a lower extremity. When suction is applied blood flows more freely into the tissues than without this aid. When air pressure follows the blood is helped to continue on its way back to the heart. The treatment is given several times a week, for 2 or 3 hours at a time.

The development of this treatment was preceded by careful laboratory studies of the physical phenomena of the flow of liquids in tubes and by careful observation of the results of applying alternate pressure and suction to the lower extremities of normal individuals. And now for more than a year the apparatus has been used successfully in the treatment of patients suffering from lack of proper flow of blood in the lower extremities.

MEDICOLEGAL NOTES

Prevention of Malpractice Suits

Dr. I. S. Trostler, Chicago, states that statistical compilations show that malpractice suits against physicians, surgeons, and medical groups and institutions are increasing to an alarming degree.

The causes of the increase are apparently such a twisted and distorted mass of contradictions that the medical profession is not in a position to accept the reasons, or to modify them, under the present conditions.

There are numerous important causative factors, both within and outside of the profession, which are apparently acting as fuel to the flame, and the victims of these malpractice suits are so frequently physicians and surgeons of the highest type and character.

Malpractice suits brought against physicians, surgeons, groups or clinics, in which two or more physicians have not played an exciting part are few and far between. Because of this, the most important preventive—or perhaps prophylactic—remedy toward the abatement of these suits, is to institute some active method of procedure within our own ranks to curb

and silence loose and malicious tongues from peddling uncalled for and entirely unnecessary innuendoes, or from throwing out suggestions or allegations of negligence, incompetence, ignorance, or wrong treatment. This is particularly true when for any reason they succeed to or take over the treatment of patients previously attended by other physicians. Exactly how many malpractice suits are actually incited by such unnecessary tongue wagging can of course be only guessed at, but unquestionably the number is very large. There is, and can be no question about the existence of this condition and that it reacts against the high as well as the low in the medical profession. This is all the more deplorable if we realize that the statistics of malpractice cases show us that these suits are relatively few and seldom brought against osteopaths or chiropractors, because they have been instigated or incited by the too loose or blabbering tongues of their fellow cultists.

The available data prove that though physicians will incite and actually stimulate the bringing of malpractice suits against other physicians, it is decidedly a rare event if we find a physician inciting or stimulating the bringing of a suit against an osteopath, chiropractor, or other cultist. And this in the face of scientific fact that the cultists' treatments unquestionably result in a far greater amount of damage than does regular medical treatment.

It is with the idea and purpose of advancing a remedy for this condition, which can and should be instituted, or at least seriously considered by organized medicine that the writer is presenting this; and although it is aimed to be a prophylactic measure rather than a remedial measure primarily, there is no question that at times defensive litigation in the form of counter suits for libel and slander, may be an effective check to some of the wagging tongues.

The figures definitely show that the great majority of judgments in malpractice suits are finally rendered in favor of the physician defendants, and if they were—and many of them certainly are—instigated by the lying and disparaging remarks of some other physician, why would it not be a good and entirely licit suggestion to advise every physician who has been thus unjustifiably maligned, disparaged, and libeled to start a suit for slander and/or libel?

It is the author's belief that every unjustifiable malpractice suit which is based on slanderous statements, should be met by the immediate filing of a suit for slander. The fact that most unjustifiable malpractice suits are lost by the plaintiffs leads one to think that the testimony given at such trials may be of such a nature that it may be useful in the physician's slander suit.

Another observation, and probably a most important one in malpractice suit prevention, is the certain and undeniable fact that very few—practically none—of these suits can be successfully prosecuted without the use of expert medical testimony. The presence of this element gives an important and extremely effective means of combating the malpractice suit evil, if it would be used.

No one can deny that any physician has the right to testify for whomsoever he pleases or elects; but when such testimony borders on, or is actual perjury, and is the result or the product of collusion, one has the right—and should assert such right—to take a hand.

It is a common observation, that the apparent willingness and even eagerness of some members of the medical profession to testify against their fellow practitioners, has done much to create judicial impressions

that are apparently reflected in some of the judicial opinions, that inasmuch as the state has granted the physician the right to practice his profession, it may demand expert testimony from him without adequate—expert's—compensation.

Good competent trial lawyers (for the plaintiff in malpractice cases), have said that no physician's or surgeon's testimony aids any malpractice case unless it is of distinct value as evidence to prove that the defendant physician actually did something wrongfully or negligently, or omitted doing something that he should have done. In other words, we are of no use or value unless we say nasty, mean things about the other fellow.

Unquestionably and unqualifiedly, no medical witness when giving expert medical testimony against a physician in a malpractice suit, can possibly refrain from depreciating the defendant physician, and at the same time be a useful and valuable witness for the side for which he is testifying. The mere fact that he is giving testimony against another physician, is a strong suggestion to the mind and perception of the jury—and even to the judge—that he thinks that the defendant physician did something wrong. It must be admitted that such depreciation, even if based entirely upon differences of opinion, may be justified; but when measured by the yardstick or gauge of the decisions rendered in such suits, it promptly becomes evident that the depreciation and disparagement of the defendant physician are usually not justifiable or merited.

For these reasons and the absence of other effective legal remedies, except that of a countersuit for slander and libel, it seems to the writer that it would be highly beneficial and salutary if organized medicine could plan to abate or suppress this evil, from an ethical, just, and moral basis.

There is no good reason why every member of every regular medical society against whom a malpractice suit is being brought, in which another member of the same society contemplates giving testimony for the plaintiff and against the physician, should not receive some protection on ethical ground from the society.

Every member of every medical society should be forbidden voluntarily to testify against another member of the society in a malpractice suit, unless and until a board or committee authorized for that purpose by the society had reviewed the essentials of the proposed testimony, under penalty of expulsion from that society.

The writer recommends that some competent physician, who is interested in the subject, could be delegated to investigate each malpractice suit that is brought against a member and if such investigation disclosed that another member of the society is scheduled to appear as a voluntary expert witness in the case, the latter should be required to submit the nature and substance of his proposed testimony to the investigator who, in behalf of the society, should have unlimited consultative privileges among its members who might have special knowledge of the medical points involved in the litigation in question. The investigator might then submit the proposed testimony to 2 or 3 competent consultants for their written opinions. If after such investigation and review of the impressiveness of the consultants' opinions, the report is favorable to the proposed testimony to be given against the defendant physician, then the physician witness could and should receive every possible encouragement to testify. But if, on the other hand, the consultants report that the proposed testimony would wrongfully and improperly depreciate and disparage the defendant's reputation and not serve to advance the cause of justice, the investigator could and should notify the plaintiff's physician

who proposed to give the expert testimony, that if he give such testimony he will be subject to discipline for unprofessional conduct.

It must of course be understood that absolutely no publicity need nor should be permitted to enter into this plan or program and that it must be strictly and most rigidly *entre nous*. The consultants to whom the investigator submits the proposed testimony need not know the names of the men involved, and the medical witness need not know who the consultants were who passed upon the advisability of his testimony. The investigator could and should be the only one who need know the names or identity of the parties involved in the entire affair, unless or until cause for expulsion (or other discipline) from the society would cause the disclosure.

Even an unscrupulous physician, who might claim that he testified as an involuntary witness, need not defeat this plan; because it would be clearly obvious to and easy for an experienced investigator to learn whether the testimony was fair or biased, or whether the witness had planned to have himself subpoenaed, in order to evade the prior review of his testimony. Either reading the transcript or listening to the testimony would be ample for any one with judgment to determine if trickery was used to avoid the usual procedure in such cases.

Unquestionably, such a plan or scheme based upon these principles, would greatly reduce unjustified malpractice suits against members of medical societies, while it would not affect the outcome of cases in which real malpractice had occurred.

It is no secret that influences outside of the medical profession are at work with the purpose of stimulating malpractice suits. These range from organized gangs who operate in typical racketeer style, sometimes after the fashion of the old "badger game," on the personal injury racket against transportation companies; to secret investigation as to who among our profession do not carry insurance against malpractice suits, so that they may entrap and intimidate them.

The foregoing plan, if adopted, while incapable itself of preventing the filing of malpractice suits, would, if conscientiously enforced, go a long way toward reducing their incidence; beside what is more important, it could be entirely possible, within our own ranks, with means now at our own disposal and entirely without the necessity of any additional legislation.—*Illinois M. J.*, October, 1933.

HOSPITAL ACTIVITIES

Fire Department of Hospital.—The Danville State Hospital for Mental Diseases (Danville, Pa.), maintains a complete and up-to-date fire department, similar to those in many small towns. This fire department was organized 35 years ago; it has many thousands of feet of hose; hook and ladder truck; water mains; fire alarm system; and booster tanks; with a full-time paid foreman. The other 30 men of the fire department are selected from various departments of the hospital. Each month the fire department drills a half-day and conducts periodic drills for the 1900 patients and 300 employees in the institution.

Drug Costs Rising.—According to an article in the Feb. 15, 1934, issue of *Hospital Management*, one of the leading manufacturers of drugs selling to the hospital field, recently called attention to the increasing prices that are in prospect for 1934. Increases are based on the fact that a large number of the basic in-

redients are imported, and costs of these imported materials have increased very much because of the decline of the dollar in terms of European currency. It is estimated that this increase has averaged around 60 per cent.

The effect of NRA also tends to increase prices of manufacturing. A third reason why prices of drugs may be expected to continue to increase according to this manufacturer is that in some instances manufacturers, in their eagerness to obtain business, have quoted prices that have meant distinct losses, and this practice cannot be continued indefinitely.

Suggests Home Obstetric Care.—A recent newspaper release from the Visiting Nurse Service of the Henry Street Settlement Headquarters, New York City, tends to encourage prospective mothers to remain at home rather than go to the hospital for obstetric service. Statements in this notice, attributed to Marguerite Wales, director of the Henry Street Visiting Nurse Service, are: "For many years the visiting nurses, social workers, and others, urged mothers to have their babies in hospitals because of the emphasis of obstetricians on this point. The recent report of the New York Academy of Medicine on maternal mortality, however, seems to have caused our leading obstetricians to advocate home care for maternity patients whenever home conditions make this safe."—*Hospital Management*, Feb., 15, 1934.

PUBLIC HEALTH

Treatment of Whooping Cough*

In *Jurnal Po Rannemu Detskomu Wosrastu* (Sur le traitement de la coqueluche) Moscow, TXIII, V5, 1933, Dr. A. N. Ivanoff reports the comparative results in the treatment of 150 cases of whooping cough with quinopryne, adrenalin, and ether during an epidemic in 1929-1930.

Several observers claim that small doses of adrenalin, administered regularly several times a day, abated the vomiting and terminated the illness in 3 weeks.

Ether alone, or given as oil and ether enemata, has numerous advocates. Olive oil combined with ether reduces the volatilization of the ether and the painfulness of the injections.

Intramuscular injections of adrenalin in 1:1000 solution were used in 10 children whose ages ranged from age 9 months to 4 years. Injections were given once daily in doses from 0.15 to 0.5 c. c., according to age, for 3 days, then one every other day, a total of 6 injections. Neither the duration of the illness prior to the injections nor the age of the child seemed to influence the results. The paroxysms of cough were reduced from the usual 12 to 15 to 4 or 5 in 24 hours. Each paroxysm was shorter and less severe and vomiting was allayed. Adrenalin seemed to have little influence on the duration of the illness as the children continued to cough though less severely for 2 months.

In a series, ether and adrenalin were administered intramuscularly in a single injection. Marked improvement followed in all cases in which there had been cough for less than 10 days. The younger children showed more marked improvement in cases in which the cough had lasted longer. The paroxysms were reduced to 5 or 6 a day and were not severe. The dura-

* The following article has been presented by the Pennsylvania State Department of Health to afford our members a timely review of the treatment of whooping cough.—*Editor*.

tion of the illness, however, was not influenced by this treatment as the cough continued for 2 months or more.

Ether alone was used to treat 118 cases. Injections of ether, *Pro Narcosi*, in doses of from 0.5 to 2.0 c.c. according to age, were given intramuscularly into the buttocks, once daily for 3 days then one every other day until 8 injections had been given. The average dose of ether was 1.5 c.c. The ages of the children ranged from 3 months to 7 years and the stages of the disease varied from the early catarrhal to a month or more after the onset of the whoop. If early treatment was instituted, the illness took a mild course with 4 or 5 paroxysms a day and terminated in about a month. In more protracted cases, the subsidence of the symptoms depended upon the duration of the illness and the age of the child. Younger children were much more susceptible to the ether therapy. In none of the treated cases did the illness persist for more than 2 months.

Pneumonia complications were observed in 7 of the 118 cases, all in children under age 18 months and present before treatment began. None of the cases under treatment developed pulmonary complications. In some instances following the ether injections there was a rise of temperature to 38° to 39° C., persisting for several hours, but no other unfavorable concomitant results. There was no necrosis nor abscess formation.

Though the process of injection was strenuously objected to, it was soon superseded by several hours of cough-free, peaceful sleep.

Adrenalin is thought to act as in bronchial asthma by reducing the hyperemia, swelling, and hypersecretion, and causing a relaxation of the musculature of the respiratory organs. The therapeutic action of ether is less clear. It evidently has a sedative effect on the coughing center and respiratory tract. Bactericidal action is denied by many authors.

As a prophylactic and therapeutic measure, intramuscular injections of whole blood taken from the mother were used daily, but with only slightly favorable results.

To quote the summary:

1. Adrenalin, though it appears a valuable measure, especially in severe cases of whooping cough, evidently has little effect on the duration of the course of the disease.

2. Ether appears to be one of the best measures against whooping cough. Though it does not immediately terminate the disease it reduces considerably the frequency and diminishes the intensity of the paroxysms and shortens the course of the illness.

3. Ether of the anesthetic type (*Aeth. Pro Narcosi*) is harmless and causes no undue complications by its intramuscular use.

4. In the early stages of the disease and in younger children ether is a more efficient remedy than in older children and in later stages of the disease.

5. The presence of râles in the lungs is not a contraindication to the use of ether treatment.

6. The complication of measles during the course of whooping cough is not a contraindication to ether injections. Ether seems to act favorably in measures against pulmonary complications.

7. Ether therapy is especially useful, during the nursing age and in enfeebled children, in preventing pulmonary complications.

8. Ether injections are better given at night as they have a sedative effect and facilitate sleep.

9. Ether produces no ill effects on the general well-being.

10. Maximum outdoor life, during the course of treatment of whooping cough, aids in a more rapid recovery.

Legal Sterilizations

More than 10,000 sterilization operations have been performed legally on human beings in the United States.

Twenty-seven states now have laws for eugenic sterilization, and in 1905 Pennsylvania came close to having such a measure. The legislature passed a sterilization bill, but Governor Samuel W. Pennypacker vetoed it.

These and other facts, made pointed by the present widespread interest in Adolf Hitler's decree ordering sterilization of unfit in Germany, are brought out in a survey just made by Science Service.

While the world watches the present sterilization experiment in Germany, the fight to spread legal sterilization in the United States goes on unabated.

The first of the eugenic sterilization laws put into effect in the United States was in Indiana in 1907. California and Connecticut enacted their laws 2 years later, and the parade of states continued until 1931, when Vermont and Oklahoma became the most recent to enact such legislation.

Most of the sterilization edicts in effect in this country provide that inmates of state (or county) institutions for insane, feeble-minded, or epileptics are to be sterilized on the recommendation of the superintendent, when approved by a board of physicians.

The board must be convinced that the patient is unlikely to recover and, consequently, that he will never be able to care for children he might beget. It must also feel certain that the disease from which he is suffering is likely to appear in children, should he have any.

In some states the sterilization of inmates may be performed only with the consent of the inmate or his legal guardian. In others, the inmate or his guardian is given the right to appeal to the courts before the operation is performed.

The whole subject of sterilization is a topic of almost endless controversy. Opponents argue, emotionally, that neither society nor the State has the "right" to deprive an individual of the power to produce children.

Dr. J. H. Landman, of the College of the City of New York, expresses the principal scientific argument of the opponents of sterilization.

Not enough is known about heredity, he argues, for any one to say definitely that a child of given parentage will positively be so diseased or defective as to become a burden to himself and to society.

Another argument is that sterilization may prevent the birth of a genius or a great benefactor to humanity, some geniuses having been born of stock that eugenicists would label "unfit."

It is also said that unscrupulous persons in authority in penal, reform, or mental disease institutions might use sterilization unfairly.

Dr. Frank C. Richmond, director of the Wisconsin psychiatric field service, advances the argument that sterilization applied wholesale without discrimination or limit will be followed by immorality and demoralization.

The proponents of sterilization favor it as "an aid to nature in eliminating the unfit." They want "to prevent the birth of children destined by their heredity to be afflicted with idiocy, mental disease, hereditary syphilis, or some other incurable and disabling condition."

Economically, it is argued, sterilization will relieve the strong of the burden of supporting those who are not.

The late Justice Oliver Wendell Holmes, in the United States Supreme Court, summed up the argu-

ments for sterilization in upholding the sterilization law of the State of Virginia. The law was contested by a feeble-minded inmate of a State institution. She was the daughter of a feeble-minded woman and the mother of an illegitimate feeble-minded child.

"It is better for all the world," said Justice Holmes, "if, instead of waiting to execute degenerate offspring for crime or letting them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind."

"We have more than once seen that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the State for these lesser sacrifices—often not felt to be such by those concerned—in order to prevent our being swamped with incompetence."—*Philadelphia Record*, Jan. 22, 1934.

Home Treatment of the Eyes.—Dr. William L. Benedict, chief of the Section on Ophthalmology of the Mayo Clinic describes some popular fallacies concerning home treatment of the eyes in the winter issue of *The Sight-Saving Review*. To quote Dr. Benedict:

"There is very little understanding on the part of the public as a whole that a most potent antiseptic agent is supplied to the eye by natural means: that is, by the tears. Laboratory experiments have shown that for most disease-producing organisms, normal tears are hundreds of times more effective in protecting the eye than solutions of drugs in such strength as can be borne. The tears are supplied in amounts that are properly regulated, and counteract the effect of most air-borne bacteria.

"Because the general public has learned that many eye lotions are put up in a solution of boric acid, the better informed immediately turn to this solution as the one safe substance that can be used for any disorder of the eye. Hence, we find that many persons are using an eye cup, giving the eye a daily bath in boric acid solution, in the hope that their disorders will soon pass away and the necessity for visiting a physician may be obviated.

"The healing properties of boric acid are infinitesimal. It is used chiefly by physicians as a vehicle to carry small dilutions of more potent drugs; and because it retards the growth of fungi or of contaminating bacteria, it forms a convenient way to dispense medicines for the eye. There is not sufficient reason for the regular use of eye baths, as there may be for cleansing the teeth or gargling the throat. The practice of giving eye baths with any solution when eyelids are not diseased, except on the advice of an oculist, should be discouraged."

Unsanitary Books.—George F. Zook, commissioner of Education, as a result of a conference of representatives of women's clubs and educational associations, has issued a circular on the care and handling of books. These circulars will be sent to school authorities.

Under normal conditions a school book lasts about three years. Economic conditions have forced many communities to defer purchases of new school books, so that today the books being used by schools may be as old as 7 years.

In the circular issued by Commissioner Zook, the danger of communication of disease through books is stressed and the school authorities will be urged to maintain their textbook appropriations at present levels or to increase them.

Pneumonia Serum.—Researches at Bellevue Hospital and New York University on the effect of serum

in the treatment of pneumonia in children show a definite decrease in the duration of the disease in lobar pneumonia, and a definite decrease in the mortality rate of bronchial pneumonia.

Dr. Rosa Lee Nemir, of New York University and the Children's Medical Service, Bellevue Hospital, has reported that one group of 69 children were treated with serum; a control group of 96 children were treated without the serum. Of the 69 children treated with the serum, 60 per cent passed the crisis by the fifth day as compared with only 20 per cent for the same period in the control group. There was no appreciable decrease in the mortality rate in lobar pneumonia between the two groups, however. In bronchopneumonia, cases treated with serum showed a definite decrease in the mortality.

Physicians Victimized.—Many Pennsylvania physicians are being victimized by both resident narcotic addicts and by drifters. These unfortunates seek sympathizers for their feigned symptoms of distress, according to a statement recently made by H. V. Smith, chief of the narcotic section.

"While this practice has been markedly reduced in this State, it is yet sufficiently prevalent to justify a warning at this time," declared the director.

"Under the law, practitioners are permitted only to prescribe or dispense narcotics regularly to those persons who are suffering from a proved incurable or inoperable disease, or who are aged and infirm and whose collapse would result from the withdrawal of the narcotic. In such cases the person receiving the narcotic must be a *bona fide* patient of the physician.

"For the medical profession's protection as well as to comply with the law, physicians not only should promptly report all doubtful or suspicious cases to the section of narcotic drug control, but also all patients being regularly supplied with a narcotic. Such reports, which are strictly confidential, not only result in exposing the imposters and forgers of narcotic prescriptions, but they also protect the reputable physician and his legitimate patients."—*Pennsylvania's Health*, Nov.-Dec., 1933.

Mortality of Coal Miners.—As part of a study of the effect upon health of exposure to the dusts generated in the extraction of coal, mortality data for both the anthracite- and bituminous-coal miners in this country and in England and Wales have been analyzed, and the results are presented in a publication recently issued by the Public Health Service.

For hard-coal miners, transcripts were obtained of the death records of Wilkes-Barre, Pa., for the period 1915-23, and of smaller cities and towns nearby for different periods between 1906 and 1925. The record for soft-coal miners is presented through the courtesy of the United States Bureau of Mines, which obtained transcripts of all the deaths occurring among adult males in the coal-producing counties of Indiana, Missouri, Illinois, and Wyoming for the period 1919-23. No figures were available as to the total number of miners among whom the deaths occurred, and so mortality rates could not be computed; but the percentage of deaths from certain causes within given age limits (proportionate mortality) for the decedent miners was compared with the corresponding percentage for other adult male decedents in the same counties. On account of the large number of deaths from mine accidents, all percentages were based on disease mortality. For the coal miners of England and Wales, standardized death rates were available.

Both anthracite- and bituminous-coal miners in this country experienced an abnormally large proportion of deaths from influenza and pneumonia during influenza epidemics and also in interepidemic periods. The mortality data indicated, although not conclusively, that hard-coal mining involved special risk of death from tuberculosis of the lungs. There was no doubt about an excessive mortality from respiratory diseases as a whole among both anthracite- and bituminous-coal miners. This excess, however, was greater in hard-than in soft-coal mining. The ratio of miners' proportionate mortality from respiratory diseases to that of other adult males in the general population was higher for anthracite than for bituminous miners at every age.

—*Public Health Reports, Nov. 24, 1933.*

Morbidity in Pennsylvania in January, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	0	10	0	12
Allentown	2	42	22	0	6
Altoona	2	3	48	0	16
Ambridge	0	1	8	0	0
Arnold	0	0	1	0	0
Beaver Falls	0	0	1	0	0
Bellevue	0	0	9	0	3
Berwick	0	0	5	0	0
Bethlehem	1	32	3	0	1
Braddock	0	0	0	0	1
Bradford	0	0	11	0	0
Bristol	2	0	0	0	0
Butler	0	0	10	0	6
Canonsburg	0	0	31	0	1
Carbondale	3	0	0	0	0
Carlisle	0	0	0	0	3
Carnegie	1	3	0	0	4
Chambersburg	0	1	2	0	6
Charleroi	0	0	6	0	1
Chester	2	24	2	0	18
Clairton	1	0	2	0	7
Coatesville	0	24	0	0	1
Columbia	0	0	0	0	1
Connellsville	0	0	1	0	2
Conshohocken	0	3	0	0	0
Coraopolis	0	1	3	0	2
Dickson City	0	0	0	0	0
Donora	0	0	4	0	0
Dormont	1	0	0	0	4
Du Bois	1	2	0	0	2
Dunmore	0	0	5	1	0
Duquesne	1	0	12	0	1
Easton	2	339	2	0	5
Ellwood City	0	0	1	0	0
Eric	1	2	36	0	20
Farrell	0	0	0	0	2
Franklin	0	1	2	0	0
Greensburg	2	0	28	0	0
Hanover	2	1	4	0	6
Harrisburg	0	1	11	0	9
Hazleton	0	0	1	0	0
Homestead	1	0	4	0	0
Jeannette	0	1	7	0	0
Johnstown	7	6	30	0	20
Kingston	2	0	6	0	8
Lancaster	0	3	19	0	21

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Latrobe	1	0	0	0	2
Lebanon	0	0	6	0	1
Lewistown	0	0	1	0	0
McKees Rocks	2	2	8	0	0
McKeesport	0	1	2	0	3
Mahanoy City	0	9	0	0	1
Meadville	1	1	5	0	0
Monessen	4	0	2	0	0
Mount Carmel	1	0	0	0	0
Munhall	0	0	2	0	1
Nanticoke	0	0	6	0	0
New Castle	2	1	34	0	6
New Kensington	1	0	15	0	3
Norristown	0	5	8	0	0
North Braddock	0	2	2	0	1
Oil City	0	2	3	0	0
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	0
Philadelphia	10	1853	290	1	175
Phoenixville	1	59	0	0	0
Pittsburgh	20	36	91	0	122
Pittston	5	0	0	0	0
Plymouth	3	0	3	0	5
Pottstown	0	1	10	0	5
Pottsville	5	48	0	0	0
Reading	1	32	18	0	32
Scranton	1	1	25	0	18
Shamokin	0	0	2	0	0
Sharon	0	1	1	0	3
Shenandoah	0	0	0	0	0
Steelton	0	0	1	0	0
Sunbury	0	1	2	0	0
Swissvale	0	0	1	0	1
Tamaqua	1	6	4	0	0
Taylor	1	0	3	0	0
Turtle Creek	0	1	5	0	6
Uniontown	0	0	8	1	31
Vandergrift	0	0	7	0	4
Warren	0	0	1	0	9
Washington	0	0	12	0	32
Waynesboro	0	0	3	0	1
West Chester	0	22	1	0	4
Wilkes-Barre	4	0	15	0	15
Wilksburg	0	0	5	0	4
Williamsport	1	4	70	0	6
York	1	69	5	0	9
Townships					
Allegheny County:					
Harrison	0	0	10	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	0	12	0	0
Delaware County:					
Haverford	0	24	1	0	13
Upper Darby	0	97	5	0	20
Luzerne County:					
Hanover	3	0	0	0	5
Plains	0	0	3	0	1
Montgomery County:					
Abington	0	31	5	0	16
Cheltenham	0	7	0	0	1
Lower Merion	0	0	0	0	11
Total Urban ..	103	2806	1060	3	756
Total Rural ..	142	1770	1154	23	648
Total State ..	245	4576	2214	26	1404

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

TUBERCULOSIS associations realize that no one can, by his own efforts, protect himself and his family against tuberculosis. They are, therefore, calling attention this year to the need of intelligent, well-directed group action. The slogan of their 1934 educational campaign is "Tuberculosis Robs You—Public Health Protects You." The modern practitioner plays an important rôle in public health practice. The rapid development of public health and scientific medicine, and the need for social adjustments of various kinds are responsible, here and there, for misunderstanding if not actual conflict. How coöperative relationships between the health department and the medical profession have been effected in one city, Detroit, Michigan, has been reported by Henry F. Vaughan, Health Commissioner of Detroit, and Ledru O. Geib of the Wayne County Medical Society. A brief description of the Detroit plan follows.

THE DOCTOR'S OFFICE AS A HEALTH CENTER

Virtually every qualified physician in Detroit has become, to all intents and purposes, a deputy health commissioner, and his office a center for preventive medicine.

The ultimate objective of the plan is to have the family doctor take care of his patients in health as well as in time of illness. Another objective is to reëducate the public to look to the physician in private practice for such preventive services as diphtheria protection, smallpox vaccination, and periodic health examinations, rather than to depend upon public agencies and free clinics—in short, to impress upon the public mind the fact that preventive medicine is a purchasable thing, and something that is to be paid for in the same manner as any other desirable commodity.

Family Doctor Is the Unit

The Detroit Plan is a group plan—the group being the organized medical society. It is not

built about a unit or community health service constructed around a clinic or hospital center, but rests upon the family physician who becomes the unit on which medical practice is constructed. At present 1100 doctors are active participants. There is no insurance scheme but a reasonable honorarium is paid to physicians for services rendered in their own offices to those who are unable to pay. Funds for this purpose come from the budget of the health department.

Physicians who have agreed to coöperate abide by certain orders and regulations prepared jointly by the medical society and the health department. The plan began with a diphtheria prevention program. It was agreed that on certain days the coöperating physicians will give toxin-antitoxin or toxoid for one dollar per treatment. The agreement does not hinder the physician from charging his client any price he chooses if the patient comes at any other hour. The physician also agrees that if the patient cannot pay

he will render the service free to the patient and the health department agrees to reimburse him at the rate of fifty cents for each service. Each coöperating physician is supplied with record cards for his own use, and postcards which he mails to the health department for recording each series of toxin-antitoxin, or toxoid treatments.

This scheme enables the health department continually to broadcast to the public that diphtheria immunization may be obtained at a certain price or for nothing if one is unable to pay.

While the plan was introduced with the diphtheria prevention campaign the ultimate purpose is to secure the participation of every qualified and prepared physician in the practice of preventive medicine. Recently tuberculosis prevention was added to the scheme. This plan is regarded not as a substitute to the tuberculin testing and roentgen-ray service in the schools as at present conducted, but as a supplement to it. The procedure is outlined in the following circular which was sent to all physicians in Detroit.

Outline of Procedure

"Children and adults will be urged to come to you by an active educational program through the radio, billboards, newspaper articles, and speakers before lay groups.

"There will be issued to school children a 'Notice to Parents' urging that the children be taken to their physician. If parents do not have a regular physician the Wayne County Medical Society will furnish them with the name of one or two coöperating physicians who reside in their neighborhood.

"The first visit should include a tuberculin test and a general physical examination. Tuberculin for the Von Pirquet test can be secured without charge (for Detroit) from the Department of Health, at the Wayne County Medical Society, or at the Detroit Tuberculosis Sanatorium.

"Every individual who has a positive tuberculin test should have a roentgen-ray examination. The roentgenologists have agreed to accept your statement regarding the ability of the individual to pay for the roentgen-ray service. If you feel that the patient is unable to pay even a part of the roentgen-ray cost, he may be sent to the Herman Kiefer Hospital where the roentgen-ray examination will be made without charge (for residents of Detroit) and a report will be sent to you.

"The charge for this examination should be arranged between the physician and the patient but no one should be turned away because of inability to pay.

"We expect that a fee of ten cents will be paid for each report sent in.

"When a positive diagnosis is made, the case should be reported to the Department of Health on the regular forms provided for that purpose. The state law requires that these records be not open to public inspection."

With this outline was sent a letter signed by the Wayne County Medical Society, the Detroit Tuberculosis Sanatorium, and the Department of Health inviting the physicians to participate. Those who reported received a second letter thanking them for their coöperation, stating where tuberculin might be obtained and urging them to attend a series of clinical conferences arranged by the joint staffs of the sanatoria. With this letter were inclosed examination blanks, and postcards on which to report cases found.

Health officials and representatives of medical associations are watching with keen interest the experiment at Detroit. While it may not be adaptable for all communities, it throws light on the problem of medical and public health relationships and suggests the basis on which co-operation may be effected.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

PROBLEMS IN LICENSURE

Believing that our members will be interested in further evidences of the coördinating endeavors of our own Board of Trustees, we publish the following from the minutes of the Feb. 6, 1934, meeting of this Board. Readers will note a number of proposed amendments to Pennsylvania's Medical Practice Act which they should thoroughly understand before seeking legislative support for same in the 1935 legislature:

Chairman Buyers at this time introduced Irvin D. Metzger, M.D., Chairman, Pennsylvania Board of Medical Education and Licensure. Dr. Metzger, stating that the Board of Medical Education and Licensure in sympathy with the proposal received by him as arising from our 1933 Secretaries' Conference regarding the licensing of aliens to practice medicine in Pennsylvania, had not only approved the suggestion that an amendment to the present Medical Practice Act covering this situation should be offered, but had also developed other proposed amendments, and he was present under instructions from his Board to discuss same before proceeding further.

The Board of Medical Education and Licensure therefore recommended consideration of the following in relation to amendments (see Bulletin No. 18M, State Board of Medical Education and Licensure):

1. Page 24, paragraph 2, line 10, and paragraph 3, last 2 lines: Two years' college work should be required instead of one year as now stated in the Act, because of the fact that it misrepresents in medical education the two year qualification which has been in effect for a number of years in practically all cases.

Further discussion on this proposal brought out the fact that in the actual administration of the law the Board had for many years required 2 years' preliminary college work, although the graduates of foreign schools have escaped this requirement. Reciprocity with the New York Licensing Board has always been complicated by this discrepancy between the Act and its actual administration.

2. Page 25, line 6: The phrase "in different calendar years" should be stricken from the Act, where it refers to the length of time required for the medical course. Some acceptable schools have a continuous course of study so that the 4 years of work required by law can be covered in 3 calendar years. Obviously, the Board should not be compelled to refuse to license

graduates from such schools. With the modern standardization of medical schools this former safeguard is no longer essential.

3. Page 25, lines 13 and 14: There should be given to the Board the right, in its discretion, to accept postgraduate work as an equivalent for internship. This should apply after a certain number of years following graduation. The expediency of accepting ethical practice as an equivalent might also be considered.

Discussion of this proposal emphasized the fact that our Licensing Board had been made to appear ridiculous on occasions when graduates of schools in other states, who had completed a hospital residency or had other unusual forms of postgraduate instruction, were ineligible for license to practice in Pennsylvania because they had not had an actual rotating internship. In other words, our State Board should be permitted to interpret the principle involved and not be required to adhere to the letter of the law in such instances.

4. Page 25, line 23: The Act should be corrected in relation to the number of obstetric cases required in medical school and also in the hospital under internship. The Act now has the absurd provision that not less than 6 weeks shall be spent in the obstetric department during internship with the care of not less than 6 patients. Obviously this number should be cut off entirely or else it should be made large enough to mean something. As it now stands, candidates are insisting upon having the Board accept cases as meeting the requirements of the law.

The important point in this proposal is that in the law all reference to the number of obstetric cases should be eliminated.

5. Page 26, lines 5 to 8: An amendment should make definite the requirements in respect to licensure of all persons, whether engaged in incorporated institutions or not, who are assuming responsibility in the care of patients. Obviously some who are engaged in State institutions have been hired, and are carrying the responsibility for patients as they care for them without direct supervision. They should be required to be licensed in a manner similar to those who practice outside of such institutions. If the work is done under the guise of internship, it must be carefully supervised as is done in hospitals approved for internship. The indefinite character of the law as it now stands has caused a considerable amount of uncertainty in respect to the legality of the practice of many engaged in institutional work.

The discussion resulted in reference to a number of specific instances in which teachers or hospital staff

assistants unlicensed in the State were engaging in institutional or dispensary practice.

6. Page 26, 2d full paragraph: Certification of American citizenship should be required of all foreigners before licensure is granted: At least, a legal certification of intention to obtain such should be required before licensure is granted.

The idea expressed in the following quotation from the Constitution of our State Society was suggested as possibly applicable to meet the situation: "Article IV. Membership. Section 1. The membership of this Society shall consist of *citizens* of the United States. . . . Physicians otherwise qualified, who have taken their first citizenship papers, shall be eligible to membership. This membership (*license*) is conditional upon the completion of citizenship within six years of the granting of first papers. Failure to comply with this provision will automatically terminate membership" (*license*).

7. Page 27, lines 25 and 26: The Board should be given discretionary power in the licensure by endorsement of persons who received their licenses by registration as well as after examination. As the Act now stands these old practitioners can not come into Pennsylvania from another State without taking an examination. The Act now interferes with the transfer of older people into other states in many cases because of the fact that the other State may require the Pennsylvania Board to promise that it will deal likewise with its candidates who may apply for Pennsylvania licensure.

It was unanimously agreed that this section of the Act as it now stands is not only obsolete but again makes our Licensing Board appear ridiculous.

8. Page 32, 2d and 3d full paragraphs: The Board should be given control over licentiates who are blatantly unethical, or are advertisers or exploiters.

A most important proposed amendment which is said to have been already attained in the dental practice act of Pennsylvania.

9. Page 32, 2d paragraph, line 5: The Act should be changed in respect to the jurisdiction of the Board over persons who are convicted in Federal Courts of violation of the Harrison Narcotic Act. At present it is limited to the removal of licenses following conviction under the State Narcotic Laws.

10. Page 33, lines 13 and 14: The section of the Act which pertains to revocation of licenses should specifically state that the Board may reinstate a license removed by revocation as well as by suspension. Under a strict interpretation of the law as it now stands, only licenses removed by suspension may be reinstated.

All the above paragraphs having been considered seriatim they were approved for most careful consideration by the Public Health Legislation Committee of our Society.

In his concluding remarks Chairman Metzger stated that a director of enforcement, an attorney, had been installed in the Department of Education, with 11 investigators in his department, who were working throughout the State for all the various licensing boards at present under the Department of Education. He further stated that at the present time these Boards in their investigation and prosecution of illegal practitioners now have the aid of State patrolmen who may serve as witnesses. He also referred to a recently enacted law which requires all charters issued outside the State of Pennsylvania whose possessors seek recognition in Pennsylvania to be submitted to the particular State department concerned for its approval before being submitted to the Attorney General's office for final decision.

MEDICAL SERVICE TO THE CHRONICALLY INDIGENT

Reference to discussions under the above heading appearing in this Department in the February and March issues of the JOURNAL will disclose our plan for publicizing the various forms of information and comment presented on the subject. That which appears below is the last of the announced data, mainly an epitome of Pennsylvania's General Poor Relief Act as it may be applied to medical care of paupers. The reader will soon note an almost complete absence of specific reference to the subject of medical care, except as furnished in various kinds of institutions for the indigent. That the law, however, is capable of interpretation by county poor authorities, so as to provide medical care for paupers in their homes, on the basis of free choice of physician and private-physician—private-patient relationship, is already a matter of record. (See Northampton County plan, page 411, February, 1934, PENNSYLVANIA MEDICAL JOURNAL, also reference to similar plans in Crawford, Lehigh, and York Counties.)

SUMMARY OF PENNSYLVANIA POOR RELIEF LAWS AFFECTING CARE OF INDIGENT SICK

A Digest of Laws and Practices

1. RELIEF IS MANDATORY:

Section 214, Chap. II of the Pennsylvania Statutes directs that "it shall be the *duty*" (*italics ours*) of the directors of each poor district to remove all persons legally entitled to relief to such institutions where they may be cared for and relieved.

The statute is mandatory.

2. LAWFUL SETTLEMENT:

An *adult* shall be considered lawfully settled, with rights to participate in the provisions of the Poor Relief Act, if not already a public charge and if a bona fide resident in a given poor district for a period of not less than one year.

A *minor* shall be considered lawfully settled, with such rights, if born in a given poor district, whether legitimately or illegitimately, unless the parent having custody of such child be settled elsewhere. All children shall follow the settlement of their parent or parents, stepfather or stepmother, having their custody, until the age of 16 years.

3. TRANSIENT PAUPERS:

A transient pauper is one who is in a municipality wherein he has no legal settlement.

He is entitled to emergency relief only.

The expense of such relief is promptly charged to the district of his legal settlement.

In the event that such pauper dies before this notice can be given, the cost of burial is chargeable to the district of his legal settlement.

County may compel reimbursement from municipality of settlement.

If any pauper shall come from one district into another without funds to return, the latter district may

provide him with sufficient work to defray such expense from his earnings.

4. ORDER OF REMOVAL:

In case any person shall not be "settled" in the district wherein he is a public charge, the directors of the district of his lawful settlement shall be notified of the facts and from the time of such notice, the cost of his relief shall be charged to such district.

5. VAGRANTS:

Section 1100, Chap. XI of the Pennsylvania Statutes defines vagrancy under the following circumstances. In brief:

1. All persons returning to a district from which they have once been legally removed without bringing with them a sworn statement as to their now being legally settled in another district.

2. All persons refusing to perform the work allotted them by the overseers of the poor.

3. All mendicants, solicitors, or wanderers having no fixed place of residence in the district in which they are arrested.

4. All persons entering the State having no occupation and no visible means of support, and who can give no reasonable account of themselves or of their business in such place.

5. Husbands who desert or refuse without reasonable cause to maintain and support their wives or family.

Commitment: Persons accused of vagrancy are liable to commitment for offending against the Poor Relief Act. (Section 1101, Chap. XI.)

Employment: The custodian of any such vagrant shall provide work for all those who are not disqualified by sickness, old age, or casualty. In all such cases the work must be suited to the proper discipline, health, and capacity of such vagrant. (Section 1102, Chap. XI.)

Discharge: The commitments are subject to abbreviation for good behavior, and vagrants may be discharged upon satisfactory security that they may not become a public charge for at least one year from date of discharge (Section 1104, Chap. XI) and exempted thereby from any further arrest for vagrancy for a period of 5 days. They shall be given a sum of money (either out of earnings or at the expense of the district) to defray expenses in securing employment (Section 1108, Chap. XI).

6. WHO IS ENTITLED TO RELIEF:

It is the duty of the poor authorities to grant relief when the circumstances are such that the poor person is unable to maintain himself or those dependent on him, and to whom relief from public funds is necessary for his subsistence.

A "poor person" is defined in the Pennsylvania Law as "one who is unable to maintain himself or those dependent on him." The law does not specify whether he is of the temporarily unemployed class due to the depression or not; therefore, it would seem that all such might come under this ruling in a liberal interpretation of the law. This, however, is not the case. The average poor board rules that only the so-called chronic poor are charges upon the county, and will have nothing to do with relieving the temporarily unemployed.

Quarantined persons considered needy and indigent poor: Whenever any person is quarantined by authority because of infectious or contagious disease, and because of such quarantine becomes unable to pay the expense of the maintenance and treatment of his family or himself, during the period of quarantine, he shall be considered a "poor" person, and subject to relief thereby.

The ownership of property upon which funds cannot

be presently raised does not bar right of relief. It goes only to the question of reimbursement of the municipality for relief given.

The district may require work of applicants for poor relief.

Section 1000, Chap. X, provides that "The real and personal estate of any pauper shall be liable for the expenses of his support, maintenance, and burial incurred by any poor district, whether owned at the time such expenses were incurred or acquired thereafter."

Poor authorities may sue for moneys expended.

Poor authorities, when any person becomes a public charge, may make application to court to become legal guardian of the person and estate of such poor person.

Poor authorities may thereby lease real estate, sue for, and recover property, and collect moneys due paupers.

7. EXTENT OF RELIEF:

It is the duty of the Poor Directors of each district to provide suitable buildings and equipment for maintenance of the poor in such district.

If such poor person, by reason of age, disease, infirmity, or other disability, is unable to work—it shall be the duty of the Poor Directors to provide him with suitable means of subsistence.

8. SYSTEMS:

The care of the poor in Pennsylvania is provided for under 4 different systems, *viz.*:

1. County Commissioners acting as Poor Directors.

2. Poor Boards, consisting of 3 persons, elected by the people.

3. Some counties divided into townships and boroughs, each having a Poor Board of "Overseers of the Poor" (elective).

4. Poor Directors appointed by judges in some districts composed of townships and boroughs.

The necessary funds for poor relief are secured by local taxation and distributed by the county commissioners in the form of appropriations to poor boards.

9. VACANCIES IN OFFICE:

"In case of vacancy in the office of director by death, resignation, or otherwise, the said vacancy shall be filled by appointment by the court of quarter sessions; said appointee to serve until the first Monday of January, next succeeding the first municipal election, and at such election a director shall be elected to serve for the unexpired term." (Section 303, Chap. III.)

10. HOW RELIEF IS AUTHORIZED:

Section 800, Chap. IX, provides that the directors of every district shall provide for every poor person having lawfully settled therein, who shall apply for relief, when such directors are satisfied, upon investigation, that such relief is necessary.

11. WHO MAY AUTHORIZE RELIEF:

Such relief may be granted on the written order of a Director of the Poor, to be authorized by the Board of Directors within a month.

12. OBSTETRIC CASES:

There is no difference between obstetric cases and other medical care, in so far as the liability of the public is concerned. In most instances such cases are cared for in the hospitals under the same general plan of medical relief as exists in other conditions.

13. HABITUAL DRUNKENNESS:

The Poor Relief Act does not include any provision for habit cases.

14. HOSPITALIZATION, NURSE, *etc.*:

In most cases there is no provision for caring for the indigent sick except in the county homes.

It is provided, however, that hospitals for the care and treatment of tuberculosis and contagious diseases be acquired and maintained by the various counties.

15. RECORDS AND REPORTS:

Section 500, Chap. V, directs that all poor directors and all superintendents of charitable and correctional institutions of the Commonwealth are required to keep records as prescribed by the Department of Welfare and to make returns thereof to such department.

All persons in charge of hospitals, almshouses, lying-in hospitals, or other institutions—public or private—are required to make a record of all cases handled therein, under direction of the State Registrar.

In the case of persons admitted or committed for medical treatment of disease, the physician in charge shall specify for entry in the record the nature of the disease and where in his opinion it was contracted. These personal particulars and information shall be obtained from the individual himself, if it is practicable to do so, and when they cannot be so obtained they shall be secured in as complete a manner as possible from the relatives, friends, or other persons acquainted with the facts. (Section 502, Chap. V.)

All deaths among paupers cared for at public expense must be reported at once to the State Anatomical Board, and all such bodies unless refused by said Board shall be delivered thereto without fee or reward, to be used for the advancement of medical science. (Section 502, Chap. V.)

Notice thereof must be given to the Board of Distribution in all cases.

No such body, however, shall be so delivered in any of the following contingencies:

(a) If claimed by the family of the deceased within 36 hours after death, for private burial at the expense of the family.

(b) If claimed by any friend or fraternal or charitable organization of which the deceased was a member, within 24 hours after death, for private burial.

(c) If the deceased was an honorably discharged soldier, sailor, or marine of the United States or a member of the Pennsylvania State Militia.

16. MEDICAL CARE IN JAILS, *etc.*:

The Sheriff is lawfully required to furnish adequate medical care to all prisoners. This is not poor relief, but is furnished the prisoner just as are his food and bedding.

17. POOR RELIEF BY RELATIVES:

The husband, wife, children, father, mother, grandparents, and grandchildren, respectively, of every poor person shall at their own charge, being of sufficient ability, relieve and maintain such poor person at such rate as the court of quarter sessions of the county where such poor person resides shall order and direct. (Section 1012, Chap. X.)

The Act does not give the order of liability.

The poor authorities may secure an order of the County Court compelling relief by relatives. Non-compliance within 30 days may constitute contempt of court, and shall justify attachment and penalty.

18. MUST PHYSICIANS' BILLS BE ITEMIZED?

There is no statute in the Pennsylvania Law which requires an affidavit to statements for services rendered, but bills should be itemized.

19. IS DOCTOR'S PAY DEPENDENT UPON RESULTS?

In no instance should the final outcome of the case regulate the liability for payment of treatment.

20. WHAT SHOULD A PHYSICIAN DO WHEN CALLED TO TREAT A PERSON WHO IS OBVIOUSLY INDIGENT BUT FOR WHOM THE POOR AUTHORITIES REFUSE TO GRANT RELIEF?

Inasmuch as the district is lawfully required to relieve all poor persons legally settled therein, the doctor should notify the proper authorities that such person requires aid. If aid is then refused, such authorities are no doubt liable to penalty.

21. COMMITMENT TO COUNTY HOME:

Commitment is by the directors or overseers of the poor of each district within said county.

Any person having legal settlement therein, and who is thereby entitled to relief, may be committed to the county home. If the county has no county home, the person may be sent to the county home of another county.

22. COUNTY HOSPITALS:

A county may establish a county hospital for the treatment of indigents; persons afflicted with tuberculosis or contagious diseases. Persons not indigent may be received and treated when considered necessary by the Public Health Authorities.

23. COUNTY TUBERCULOSIS HOSPITAL:

Such a hospital may be established by any county. (Sec. 1200, XII.)

Indigents are cared for at the expense of the county of settlement.

24. COUNTY HOSPITAL FOR CONTAGIOUS DISEASES:

Such a hospital may, if deemed necessary or advisable by the poor authorities, be established by any county.

Indigents are cared for at the expense of the county.

Persons not indigent may be committed for treatment and isolation when, in the opinion of the health authorities, proper quarantine measures cannot be otherwise enforced.

25. DEPENDENT AND NEGLECTED CHILDREN:

All children between the ages of 2 and 16 years, unless unteachable idiots, epileptic, paralytic, or otherwise so disabled or deformed as to render them incapable of labor or service, shall be placed in some respectable family or in some educational institution or home for children. It is unlawful to keep such children in any almshouse for a longer period than 60 days unless thus afflicted. The directors of the poor are also required to visit such children in person or by agent not less than once every six months and make all necessary inquiries as to their treatment and welfare, and report thereon to the proper authorities.

26. DEAF, DUMB, AND BLIND:

Any deaf, dumb, or blind person, lawfully entitled to poor relief in any given district, may at the direction of the poor authorities of such district, be removed to the care of any association organized for the purpose of providing a home or remunerative employment for deaf and dumb and blind persons being situated within the boundaries of the State of Pennsylvania.

The district of settlement bears the entire expense, at a rate equal to the per-capita cost of maintaining inmates in the almshouse of such poor district.

27. MISDEMEANORS:

It is a misdemeanor and punishable for any one to:

1. Willfully interfere with the proper administration of the Poor Relief Act.

2. Fail to keep records as prescribed by the Pennsylvania Department of Welfare.

3. Fail to provide relief when indicated.

4. Failure of directors to bid for supplies and accept lowest bidder therefor.

5. For any director of the poor to be personally interested in contracts for supplies, maintenance, or construction or improvement of property under his control.

6. Bring or send any dependent person into any municipality for support, to relieve himself or another municipality of such duty.

7. Retain children between the ages of 2 and 16 years in almshouses for a period exceeding 60 days unless by reason of exceptions as noted in (25).

8. Solicit or receive any personal gain through the administration of Poor Relief.

CHESTER COUNTY*

Organization.—Chester County operates under the General Poor Relief Act, which provides for three Directors of the Poor. These officials are responsible for the supervision of the County Home and the Hospital for the Insane located on an 802-acre farm situated about 8 miles from West Chester; care and support of the feeble-minded, of whom there are 86; caring for the homeless children, which number 54. The Home in which there are 165 inmates, maintained at a weekly per-capita cost of \$4.32, is in charge of a superintendent, who is also steward of the hospital for the insane. A physician, who is a psychiatrist, looks after the sick in the Home and ministers to the needs of 315 patients in the mental hospital. All persons in need of surgical or general hospital service are taken to one of the general hospitals in West Chester for treatment. The report for 1933 shows 94 mental patients were cared for in State mental hospitals, at a cost to the county of \$10,687.

Chester County levies no poor tax. The Directors of the Poor submit a budget to the County Commission, which includes all the items necessary to carry on the functions of the Poor Board. The Commission in turn sets aside such an amount, taken from the taxes received, to be used for this purpose. For the year 1933 the Commission appropriated \$150,000.

The Directors of the Poor report that there is no provision for medical care for a large number of families for whom the Board provides food, clothing and fuel. The Poor Board holds that the law regulating the duties of Poor Directors does not permit expenditures for medical care. The Board also contends that there is insufficient money appropriated to give medical care to this group of persons. The medical care of such paupers is accordingly a matter of free medical service, except for such medical relief to paupers as is now being paid for by money diverted from State and Federal funds provided for emergency medical relief through State and county emergency relief boards.

This report would be quite incomplete without calling attention to the constructive work of the Chester County Medical Society. Much has been done through the active committees of the Society to coördinate the various agencies in the county, such as the State Nurses, Red Cross, Children's Aid Society, etc., to the end that a fine program of health service in all its phases has become a reality.

Persons interviewed: Directors of the Poor—Miss Isabel Darlington; Mr. Joseph W. Sharp, Jr.; superintendent of County Schools—Mr. Clyde Saylor; Drs. J. A. Farrell, chairman, Medical Economics Committee;

Thomas Parke, editor, *Medical Reporter*; Joseph Scattergood, Sr., secretary, Chester County Medical Society; Joseph Scattergood, Jr., William T. Sharpless.

Note: A total of approximately 555 indigent poor and insane are being cared for by Chester County. In my opinion Mr. Koch has made a careful, unbiased investigation of the situation regarding the "poor" of our county. Our Directors of the Poor have continuously maintained that the laws of Pennsylvania do not provide for the medical care of hundreds of indigents who are not in our county institutions. This entire burden is being carried by the doctors of Chester County, except as physicians as well as dentists are being paid, since December, 1933, on a reduced fee basis, from funds of the County Emergency Relief Board. There is no reason why Chester County, one of the wealthiest in Pennsylvania, could not provide continuously on a fee basis, with free choice of physician, improved medical service for its paupers living outside the county institutions.—JOSEPH SCATTERGOOD, *Secretary*.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Feb. 15. Figures in first column indicate county society numbers; second column, State Society numbers:

1934

Feb. 15	Lackawanna ...	81-113	2204-2236	\$247.50
16	Northampton ..	1-59	2237-2295	442.50
17	Mercer	29-35	2296-2302	52.50
	Blair	49-60	2303-2314	90.00
	Delaware	78-88	2315-2325	82.50
	Greene	16-18	2326-2327	15.00
19	Chester	37, 51-65	2328-2337	75.00
	Clearfield	11-25	2338-2352	112.50
	McKean	6, 13-22	2353-2363	82.50
	Dauphin	120-137	2364-2381	135.00
20	Lehigh	14-70	2382-2438	427.50
22	Erie	21, 52-58		
		60-62	2439-2449	82.50
	Potter	8-11	2450-2453	30.00
	Franklin	39-49	2454-2464	82.50
	Greene	20	2465	7.50
	Bucks	15-18	2466-2469	30.00
	Mercer	36-37	2470-2471	15.00
	Armstrong	21-26	2472-2477	45.00
	York	84-88	2478-2482	37.50
27	Allegheny*	1284	7760	7.50
	Allegheny	205, 483-686	2483-2687	1537.50
	Bedford	12-13	2688-2689	15.00
	Fayette	61-73	2690-2702	97.50
	Schuylkill	75-82	2703-2710	60.00
	Bradford	13-17	2711-2715	37.50
	Montour	26-28	2716-2718	22.50
	Washington	36-53	2719-2736	135.00
	Cumberland	30-31	2737-2738	15.00
	Northumberland	46-55	2739-2748	75.00
	Indiana	1-12	2749-2760	90.00
28	Somerset	30-32	2761-2763	22.50
	Carbon	20-25	2764-2769	45.00
	Bedford	14	2770	7.50
	Philadelphia	7-814	2771-3578	6060.00
Mar. 1	Montgomery	109-123	3579-3593	112.50
	Washington	54-61	3594-3601	60.00
	Delaware	89-91	3602-3604	22.50
2	Dauphin	138-154	3605-3621	127.50
	Lancaster	17-52	3622-3657	270.00
	York	89-93	3658-3662	37.50
	Perry	2-10	3663-3671	67.50
	Wayne-Pike	1-11	3672-3682	82.50
3	Adams	13	3683	7.50
	Columbia	27-28	3684-3685	15.00
5	Lycoming	65-79	3686-3700	112.50
	Clarion	14-19	3701-3706	45.00
	Schuylkill	83-86	3707-3710	30.00
	Mercer	38	3711	7.50
7	Luzerne	72-117	3712-3757	345.00
	Wayne-Pike	12-13	3758-3759	15.00
	Berks	102-118	3760-3776	127.50
	Somerset	33-34	3777-3778	15.00
	Tioga	1-14	3779-3792	105.00

* Should have been published with series in March JOURNAL.

* Indicates 1933 dues.

1934

Mar. 7	York	94-97	3793-3796	\$30.00
	Adams	14	3797	7.50
	York	98-100	3798-3800	22.50
	Dauphin	155-172	3801-3818	135.00
	Greene	21	3819	7.50
	Mifflin	16-21	3820-3825	45.00
8	Northumberland	56-61	3826-3831	45.00
	Adams	15-20	3832-3837	45.00
	Mercer	39-40	3838-3839	15.00
	Indiana	13-17	3840-3844	37.50
	Center	1-15	3845-3859	112.50
	Fayette	74-88	3860-3874	112.50
	Erie	59, 63-69, 72-90	3875-3901	202.50
	Crawford	21-27	3902-3908	52.50
13	Monroe	14	3909	7.50
	Lackawanna	114-138	3910-3934	187.50
	Jefferson	1-34	3935-3968	255.00
	Huntingdon	15-21	3969-3875	52.50
	Cumberland	32	3976	7.50
	Montgomery	124-139	3977-3992	120.00
	Venango	26-31	3993-3998	45.00
	Schuylkill	87-99	3999-4011	97.50
	Clearfield	37	4017	7.50
14	Westmoreland	32-86	4018-4072	412.50
	Beaver	45-56	4073-4084	90.00
	Mercer	41-44	4085-4088	30.00
	Cambria	71-96	4089-4114	195.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to March 15:

ALLEGHENY: *New Members*—John Paul Cameron, III, 366 Co. CCC Camp S. 125, Elmsport; Paul J. Dunn, 1557 Broadway Ave., Dormont; John F. Emmerling, 106 Arlington Apt., Center & Aiken Aves., Elmer Highberger, Jr., West Penn Hospital, John M. Hill, 96 Stratmore Ave., Crafton Heights, Paul H. Rankin, 2934 Glenmore Ave., Christian J. Stoecklein, Jenkins Building, Henry L. Westerman, 4822 Liberty Ave., LeRoy E. Wible, Pittsburgh Life Bldg., 219 Sixth St., Pittsburgh. Robert R. Macdonald, City Hospital, Seranton Road, Cleveland, Ohio. *Transfer*—Charles B. Forcey, Sewickley, from Beaver County Society. *Removal*—Paul C. Bruce, from Pittsburgh to U. S. V. Hospital, Oteen, N. C. *Resignations*—Charles A. Laufer, 521 Franklin Ave., Wilkinsburg; George J. Mohr, 3604 Victoria St., Pittsburgh.

BEAVER: *Death*—Theodore P. Simpson, Beaver Falls, Bellevue Hosp. Med. Coll., '77, aged 76, March 6.

BEDFORD: *Death*—William P. S. Henry, Everett, Univ. of Pa., '82, aged 77, Feb. 17.

BERKS: *New Member*—Herbert H. Herskovitz, Wernersville State Hospital, Wernersville.

BUCKS: *Death*—William J. Wilkinson, Sellersville, Jeff. Med. Coll., '91, Jan. 2, aged 66.

CENTER: *New Members*—F. S. Campbell, Clara B. Owens, State College; Joseph A. Parrish, J. G. Weixel, Bellefonte; Robert J. Young, Snow Shoe.

CHESTER: *New Member*—Charles C. Rankin, West Chester.

CLARION: *New Member*—Newton C. McCollough, Rimersburg.

COLUMBIA: *Death*—J. Marion Vastine, Bloomsburg, Medico-Chi. Coll., '99, aged 60, recently.

CRAWFORD: *New Member*—Clarence M. Sonne, Titusville.

DAUPHIN: *New Member*—Earl H. Grim, 113 W. Main St., Middletown. *Transfer*—H. K. Petry, Harrisburg State Hospital, Harrisburg, from Westmoreland County Society.

DELAWARE: *New Member*—Richmond C. Holcomb, 306 S. Madison St., Upper Darby.

ERIE: *New Members*—Charles G. Gage, 106 W. Ninth St., Mitchell Burdick, 221 W. Ninth St., Erie. *Reinstated Member*—Usher H. Meyers, 812 Sassafras St., Erie. *Removal*—Ferdinand C. Sommer, from Erie to W. Oakwood & Crescent Sts., Buffalo, N. Y.

FAYETTE: *Transfer*—Joseph Brain, Isabella, from Indiana County Society.

FRANKLIN: *Transfer*—Edgar H. MacKinlay, McConnellsburg, from Blair County Society.

HUNTINGDON: *Death*—A. Hanks Evans, Saxton, Medico-Chi. Coll., '92, March 5, aged 77.

INDIANA: *Reinstated Member*—John Stewart, Marion Center.

JEFFERSON: *New Member*—William Craig Hendricks, Brookville.

JUNIATA: *Death*—Amos W. Shelley, Port Royal, Bellevue Hosp. Med. Coll., '74, March 2, aged 83.

LANCASTER: *New Members*—Stephen D. Lackey, East Petersburg; John H. Mentzer, Denver; Carl H. Myerly, Lincoln.

LEBANON: *Death*—Ulysses G. Risser, Campbelltown, Jeff. Med. Coll., '97, Feb. 10, aged 63.

LEHIGH: *New Member*—William M. Stauffer, 8th & Gordon Sts., Allentown. *Removal*—Louis C. LaBarre, from Allentown to Shenandoah.

LUZERNE: *New Member*—James T. Williams, 52 Graham St., Wilkes-Barre.

LYCOMING: *New Member*—Morris W. Curtis, Trout Run. *Removal*—Charles W. Straub, Middleburg, from Hughesville. *Death*—Frederic G. Sanford, Jersey Shore, Univ. of Pgh., '01, Jan. 28, aged 56.

MERCER: *Resignation*—Samuel V. King, Grove City.

MONTGOMERY: *Reinstated Member*—Paul D. Hanley, Pottstown.

NORTHAMPTON: *New Members*—Max Littner, 734 Linden St., Bethlehem; Thomas R. Morgan, Wind Gap; George S. Smith, 718 Berwick St., Easton; Sydney E. Weintraub, Jessup. *Transfer*—Frederick O. Zillessen, 244 Bushkill St., Easton, from Northumberland County Society.

NORTHUMBERLAND: *New Member*—Clark B. Zimmerman, Lewisburg.

PHILADELPHIA: *New Members*—J. Claxton Gittings, Univ. Hospital, 3400 Spruce St., Maurice Jaffe, 1551 N. 29th St., Abraham Bernstein, 523 Pine St., Edwin Lee Keiser, Jr., 6933 Tulip St., Manuel M. Maeso, 1515 S. Broad St., William P. J. Ruddy, 1727 Girard Ave., Philadelphia. *Reinstated Member*—Albert A. Burros, 2265 N. 18th St., Philadelphia. *Death*—Harry A. P. Neel, Philadelphia, Univ. of Pa., '77, Feb. 5, aged 79; Peter N. K. Schwenk, Philadelphia, Univ. of Pa., '82, Feb. 17, aged 80.

POTTER: *Reinstated Member*—Carroll W. Kjelgaard, Galeton.

SCHUYLKILL: *New Member*—George C. Hohman, Pottsville. *Death*—Lewis C. Robinhold, Auburn, Jeff. Med. Coll., '91, March 9.

SUSQUEHANNA: *Transfer*—Charles J. Haines, Hallstead, from Philadelphia County Society.

WARREN: *Resignation*—Willard C. Trushel, Shinglehouse.

WASHINGTON: *Reinstated Member*—Fernand N. Parent, 1st National Bank Bldg., Charleroi.

WAYNE-PIKE: *New Members*—H. C. James, Robert C. Canivan, Honesdale. *Reinstated Member*—Frederick A. Lobb, Honesdale.

WESTMORELAND: *New Member*—Harry E. Harkcom, Donegal.

YORK: *Death*—William F. Bacon, York, Bellevue Hosp. Med. Coll., '82, Feb. 15, aged 75.

COMMITTEE ON SCIENTIFIC WORK

RICHARD A. KERN, M.D., *Chairman*
Philadelphia, Pa.

PROGRAM OF THE SECTION ON MEDICINE

This year a determined effort has been made to place papers upon the program of the first session of the Medical Section on Tuesday, Oct. 2, explaining the various exhibits. Drs. G. Morris Piersol and Walter Karr are to speak on "Biochemistry in Clinical Medicine, from the Standpoint of the General Practitioner." Dr. Max Strumia will speak on "Blood Pictures in Infections, from the Standpoint of the General Practitioner." Dr. Sydney J. Hawley will speak on "Arthritis of the Spine." Dr. John A. Kolmer will speak on the "Diagnosis and Modern Treatment of Amebic Infestation" and Dr. H. R. M. Landis will speak on "Pneumoconiosis." There will be exhibits related to each one of these subjects.

For Wednesday afternoon, Oct. 3, the program has been arranged around the chief guest speaker, Dr. Herrman L. Blumgart, associate professor of medicine, Harvard Medical School. The title of his paper will be "The Clinical Management of Patients Before and After Total Ablation of the Thyroid for Chronic Heart Disease." Dr. Edward L. Bortz will discuss "Dinitrophenol and Weight Reduction"; Drs. James J. Quiney and John T. Farrell, Jr., will each give papers outlining their results with roentgen-ray therapy in cases of hyperthyroidism. Dr. Ronald L. Hamilton will read a paper on "Hypertension Simulating Hyperthyroidism," and Dr. William G. Leaman, Jr., will present his work on the clinical determination of venous pressure, closing the presentation with a 5-minute motion picture film depicting the technic of this procedure.

The program for Thursday afternoon, Oct. 4, will probably be arranged in relation to the subject of the guest speaker (to be announced later).

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

IMPORTANT NOTICE!

COÖPERATE WITH YOUR LOCAL SOCIETY IN THE MEDICAL WORK IN CONNECTION WITH THE PUBLIC WORKS. THE

PUBLIC WORKS DIFFERS FROM THE EMERGENCY MEDICAL RELIEF IN THAT IT IS ADEQUATE MEDICAL CARE PAID FOR BY THE PUBLIC WORKS AND INCLUDES PAY TO THE PHYSICIAN OR SURGEON AND HOSPITALS, IN ACCORDANCE TO THE FEE SCHEDULE ADOPTED BY THE STATE COMPENSATION ACT.

Concerning Annual Registration Fee for Participants in Emergency Medical Relief.—The director of Emergency Medical Relief has requested the Department of Public Instruction of the Commonwealth of Pennsylvania to defer for a month's period the compulsory annual registration fee required of all practicing physicians in Pennsylvania. After these 30 days of grace, the name of the physician participating in the emergency medical relief program must appear on the list of those having paid the annual registration fee, before the physician will receive compensation for his medical service to the indigent. The physician rendering emergency medical relief who has neglected to pay his annual registration will be ineligible to participate in the emergency medical relief fund. The annual registration fee is \$1.00 and should be sent promptly to the Department of Public Instruction, Harrisburg, Pa. This annual registration fee is required by the Medical Practice Act, effective in 1926. There is a penalty of a fine of \$10 to \$100 for failure to register.

PRESENT STATUS OF OBSTETRIC ORDERS

MARCH 23, 1934

To: Executive Directors, Supervisors, Auditors, Chairmen, Local Medical Advisory Committees, President and Secretary of County Medical Societies.

From: HAROLD A. MILLER, M.D., Director, Emergency Medical Relief.

Six prenatal visits are required in all obstetric cases delivered on and after March 1, 1934, except as here noted:

1. The Relief Director should mark all medical orders given for known obstetric patients, as obstetric orders. These should be presented to the physician within 48 hours in order to prevent "shopping" on the part of the patient.

2. The physician once having this obstetric order in his possession is paid for the same even though the patient is taken off relief prior to the time the child is born.

3. Six prenatal visits are required provided the patient has been on relief 6 weeks, or more, prior to the date of delivery.

4. The physician is compensated for obstetric cases and they are considered as complete provided the physician has made 6 prenatal contacts; one when the medical order was first obtained, one at the beginning of the seventh month, one the middle of the seventh month, and the remaining visits at weekly intervals during the continuation of the pregnancy. If the order was given at a date which precluded the possibility of making the 6 prenatal visits, but a visit a week was made following the issuance of the medical order, the case is considered as complete and the compensation will be \$20. At least one prenatal visit and a complete examination is necessary; otherwise it is an emergency and paid for as per No. 5. To illustrate: (1) Patient put on relief Jan. 15, delivered March 1, 6 prenatal visits. (2) Patient on relief 3 weeks; 3 prenatal visits prior to delivery. The date on the medical order is evidence of its issuance.

5. Patients seen who do not have a medical order are paid for as an emergency, one home visit for delivery and 3 home visits postpartum. The maximum is then \$8.

6. Patients who have been on relief a sufficient length of time to have complied with the prenatal requirements, and the prenatal contacts have not been made, are paid for as emergencies as per No. 5.

The purpose of this prenatal program is to reduce the obstetric mortality. One pregnant woman dies each hour of the day in the United States because of obstetric complications.

ADEQUATE MEDICAL CARE

The work of the State Emergency Medical Relief Board naturally divided itself into several stages.

The first, to procure a free flow of medical attention to the relief recipient, was made possible a few days after the program was announced. It can now be said without fear of contradiction that every relief recipient in the State of Pennsylvania receives medical care when necessary.

The second consists in bringing about a clear understanding of the service by both the relief recipient and the medical attendant, and is well under way. The dental, medical, nursing, and pharmaceutical professions now have a reasonably clear understanding of their respective participation. Mistakes and misunderstandings are becoming less frequent.

In many counties the local medical advisory committee has had to advise severe disciplinary measures and a few physicians and dentists have been removed from the participating list. This action, in instances reviewed by the State Medical Advisory Committee, has been supported. Coöperation with the local committee is essential and must be given by all physicians participating in the medical relief program.

Compensation for medical, dental, and nursing care is now being distributed to all who have rendered approved service. To date (March 29, 1934) the Emergency Relief has paid \$245,148.35 to the doctors of the State. These figures do not include the \$120,000 paid, or to be paid, physicians of the City of Pittsburgh for obstetric service during the period August, 1933, to July 1, 1934.

Federal Relief inspectors are now asking the question, "What constitutes *adequate* medical care?" "Adequate medical care is that type of medical care which meets the approval of the recognized leaders of medical thought." (Waters.) This is the type of care which is insisted on by Federal Regulation No. 7 and guaranteed to relief recipients by your State Committee. Federal and State Governments, State Relief Department, and Medical Advisory Committees all feel that less than adequate care should not be supplied through public funds.

This Department indicated in the December JOURNAL the examination thought necessary at the time of the first visit or contact. In later numbers other subjects were discussed, including obstetrics and diabetes, but in many instances local advisory committees have indicated to the Relief Department that in some cases the examination of the patient was cursory and no record was kept of the condition of the patient at the time of the first examination. Physicians must keep card records which show the completed first examination, the working diagnosis, treatment given, final diagnosis, and the result of the treatment. It has been suggested that this is only possible if a preferred list of physicians be used

and that all ambulatory patients go to clinics, in which complete examinations are made and records kept.

The future will offer increasing difficulties to your State Committee in preserving the right of all physicians to participate, and the right of the patient to employ the physician of his selection, unless they have evidence of adequate medical attention in the way of clinical record (including a complete physical examination) showing the above facts on all medical and surgical cases, plus the obstetric chart published in the March JOURNAL. Short, concise, and convenient charts in the form of cards or looseleaf sheets, are available through commercial houses and the obstetric chart, through the office of The Medical Society of the State of Pennsylvania, 230 State St., Harrisburg, or the Federal Government, at a nominal cost especially if purchased in quantities through the county medical society.

To physicians wishing to continue participation in the relief program, the Department of Emergency Medical Relief suggests that you install such a system immediately, thereby anticipating the time when the physician will be required to show such records, perhaps to substantiate claims for compensation in treated cases. Such medical records will also furnish a basis for the establishment of a "preventive medicine" program, which is most effective when given to the ambulatory patient, and should be given in the first health center which should be "The office of the physician of choice."

On the basis of providing adequate medical care, the universal adoption of this suggestion is urged upon physicians participating in State Emergency Medical Relief.

County Society Reports

BERKS

Feb. 13, 1934

The meeting was held at 3:15 p.m., at Medical Hall, Reading, with President Ralph L. Hill, presiding, about 65 present. Burton T. Simpson, director of the New York State Institute for the Study of Malignant Cancer, spoke on the "Responsibility of the Medical Man in the Control of Cancer."

Dr. Simpson said in part: The principal thing to impress on lay audiences, who are much afraid of cancer in any form, is that lack of knowledge on this subject is most to be feared. Even among our county medical societies today, there is quite a pessimistic feeling about cancer, because it seems that surgery has reached its limit in treatment; so surgery is not the complete answer. The average general practitioner usually sees about 4 or 5 cases of cancer a year, but the fate of all these cases rests in the hands of the first physician consulted, who either refers the patient to the roentgenologist or the surgeon. It usually happens that the majority of such cases are advanced, and he is more or less doubtful of a cure. Cancer kills about 120,000 human beings annually, and ranks second in the causes of mortality. The real question is when is cancer curable. Many lesions are curable, and among these are the precancerous conditions. A quarter of the deaths are due to cancer in an accessible region, and many of these could be prevented if the medical man could give them the study they require.

Although the exact origin of cancer is not known, it is however known to be noninfectious and not caused by any microorganism. It is the result of a chronic

extrinsic irritation, associated with inherited susceptibility.

Cancer of the lip is often found in pipe or cigar smokers, but may follow excessive cigarette smoking. There is doubtless a relation there, but we do not yet know the exact facts. Probably the next 10 or 15 years will produce some interesting data, now that smoking among women has become so popular; more cases of cancer of the lip in the latter sex will be seen.

Cancer of the bladder is generally found among workers in aniline dyes. In the abdomen it is frequently found in the natives who inhabit the Himalaya Mountains because of the charcoal stoves they carry during cold weather, resulting in continual burn irritation.

Epithelioma has been produced in mice by freezing the area with carbon monoxide snow; but in this kind of artificial irritation, a long time is required.

Mouth, cheek, and tongue cancer is associated with ragged-edged teeth, which cause repeated ulceration and regeneration. Once cells acquire it, the growth habit continues, and these unstable cells are hypersensitive to irritations from practically any cause.

Cancer of the stomach is the most common cause of death from that disease because it is nearly always too far advanced before any symptoms appear to suggest its presence. It is a very difficult problem to solve, and for this reason all chronic gastric symptoms should be carefully studied. Cancer never thrives in perfectly healthy tissues, but its relationship with ulcers of the stomach is very close. Such ulcers in 10 per cent of the patients usually develop into cancer. It is common knowledge that a chronic ulcer is a potential cancer, and should be removed with that idea in mind. If rest and diet for a period of 6 weeks do not clear up gastric ulcer symptoms, the real trouble is probably a gastric carcinoma.

Cancer of the uterus in women causes death mostly between ages 35 to 50, although some cases have been found occurring in persons under age 20. Cancer of the cervix, generally caused by injuries resulting from childbirth, ought to be a preventable disease. The lesions are not necessarily found in the scar, but the scar is irritant. Thirty per cent of cervical cases are curable; and if found early enough, 75 per cent may be cured.

The responsibility for early recognition depends on the first physician to see the case, for in all cases of cancer, pain is a late symptom. For instance, every doctor who delivers a woman patient is responsible for her not having cancer. She should be requested to come in semiannually for an examination of the cervix, and any change should always demand a biopsy, which is almost entirely painless.

Cancer of the breast constitutes the third highest cause of the cancer mortality rate. In any woman past age 25, a single lump in the breast is a potential cancer, and should be removed promptly. Cancer of the breast is often associated with chronic mastitis.

Because of the aptitude for metastasis, a biopsy should be done at the hospital, and not at the office, and if the report is positive cancer, the operation should follow immediately. In the pregnant woman, the milk should under no circumstances be allowed to stagnate, for stagnant milk becomes a real irritant. Cancer of the breast should be irradiated pre- and postoperatively to prevent metastasis. Twenty-five per cent of the patients with cancer of the breast survive the 5-year period following operation. The less palpation or handling of the tumor mass, the less danger there is of spreading the disease, if malignant.

In discussion, Erwin D. Funk said he believes the surgeon is correct even if he removes a mammary growth no larger than a thumb-nail. Dr. Simpson's warning about overmanipulation is also of much interest, and is certainly worth serious consideration. If there was some kind of a test, other than biopsy, such as chemical, biologic, or serologic, we could likely diagnose early cancer; but most of the cases we come across are beyond cure. Frank G. Runyon asked how much faith is placed in the "Gruskin" test for cancer? Some claim to have a considerable number of good results in diagnosing cancer by this method. Levi F. Wagner asked if a diagnosis of cancer of the prostate gland can be made? Gilbert I. Winston asked if a few small fibroids are inside the cervix, should an amputation, or panhysterectomy be done? In an early case, which method has the safest and most sure cure? Richard C. Travis made a plea for more irradiation of cancer cases, and asked if it is the opinion of the Institute that radium alone will afford a cure. Thomas Butterworth said it is interesting to note that on an outdoor worker one finds more skin cancer or epitheliomata. Ninety per cent of persons have moles somewhere, but those which appear on the face seem to be more likely to become malignant than in other parts of the body, especially at the age when senile waste becomes apparent. Even such cases can be handled successfully if treated in time. Dr. Funk asked if a pigmented mole has been removed from the axilla, can metastasis occur 6 years after the operation? Le Roy W. Frederick asked if in persons who seem to be predisposed to cancer from a hereditary standpoint, would it be advisable to administer prophylactic treatment to such persons every 6 months?

Dr. Simpson in closing stated there are certain types of cancer that are more or less benign and metastases occur relatively late. The scirrhus type is malignant and metastasizes early. Cancer has a certain rapidity of growth. In the scirrhus type, the connective tissue growth outstrips the epithelial; it metastasizes early.

Concerning the tests for cancer, all research workers have been hunting for years and the older ones have given up; as each new generation appears, it begins hunting all over. Cancer, however, is a purely local condition; there are no symptoms and no blood changes early in the disease. None has been brought forward except that which shows a positive reaction when the clinical diagnosis itself is obvious. Split proteins appear too late; "Gruskin's" test is not reliable in 100 per cent of the cases; it is positive only in advanced stages.

Cancer of the prostate is found only in old men; there are multiple adenomata. Large prostates are usually benign adenomata; malignant adenomata are usually small and found in the middle lobe.

Certain fibroids become malignant. Two small ones may be irradiated if near the menopause. Better not produce an early or artificial menopause as there is more suffering later. It is preferable to do nothing to those small fibroids. Adenomatous cancer is not found in the uterus until well after the menopause.

Certain types of cancer are better taken care of by irradiation. In the case of cervical cancer, have a biopsy taken first so that the pathologist can render an opinion. If the cancer is radiosensitive, it is possible to destroy it by external radiation; a lymphosarcoma will usually melt away under such radiation. A radioresistant cancer should be removed by surgical operation. Roentgen ray and radium are interchangeable.

able; whichever is the more convenient may be used; frequently the combination of both is preferable.

Among the precancerous conditions are lupus and keratosis. Cancer of the vulva is very malignant. First radiate and then remove with a cautery. Moles, especially the elevated pigmented moles, and those being constantly irritated are the most apt to develop malignancy. Metastasis has been known to occur 14 years after removal of a cancer. Since cancer is not hereditary, prophylaxis seems to be unnecessary. One never knows whether there is an inherited susceptibility to cancer or not; but it is always wise to remove any chronic irritant.

PEARL E. HACKMAN, *Reporter*.

CHESTER

Feb. 20, 1934

The meeting was held at the Chester County Hospital. Luncheon was served. President Howard B. Davis in the chair. The committee appointed to coordinate the medical fees in the various parts of the county reported that it was still at work on this rather difficult subject. The Board of Censors reported concerning the State Teachers' College, West Chester, refusing to permit John A. Farrell to address the students on the question of Tuberculosis Seals. The attitude of President Cameron is that he is responsible only to the State College Board of Trustees in the matter of selecting speakers at the college. Dr. Farrell asked for a vote of confidence from the Medical Society, and it was approved that the issue be referred to the Department of Public Instruction and Governor Pinchot for final solution. The Economics Committee reported the difficulty in adjusting fees for services rendered to patients on Emergency Relief. It was suggested that a committee be appointed to recommend to the Society business to be acted upon at each meeting. Dr. Davis made a constructive report as to the work in which the society should take part during the present year, and suggested that every attention be devoted to birth and death mortality as well as appendiceal mortality in Chester County.

William T. Sharpless, West Chester, gave an account of "A Romantic Period in Medical History," particularly that period between 1550 and 1660, which was rich in men who contributed so much value to the medical profession. He spoke especially of Galen and Hippocrates, emphasizing particularly the many contradicting stories concerning Hippocrates; of Paracelsus, and of Vesalius, who was really the greatest anatomist of all times. Dr. Sharpless recommended a small book written by Dr. Howard W. Haggard, entitled, "Mystery, Magic, and Medicine," which outlines the rise of medicine from superstition to science; and exhibited many old books of historic interest and value.

JOSEPH SCATTERGOOD, JR., *Reporter*.

CRAWFORD

February, 1934

The meeting was in the form of a dinner, tendered to the members of the society by the new president, Maurice T. Leary, at the Lafayette Hotel, Meadville, to a group comprising almost the entire membership. Mr. Edwin Dane, member of the Assembly, was a guest.

CLIFFORD W. SKINNER, *Reporter*.

DAUPHIN

March 6, 1934

The meeting was held 8:40 p.m., in the Academy of Medicine Building, President E. Kirby Lawson in the chair.

H. K. Petry and E. H. Grimm were elected to membership.

W. Drury Hawkins spoke on "The Bronchial Phase of Common Colds." He stated that acute bronchitis is occurring more frequently, due to the depression, as people with head colds are not going to the doctor early and are waiting until the cold becomes a chest affair.

J. Landis Zimmerman spoke on "Nasal Deformities and Accessory Sinus Complications." He emphasized the early treatment of sinus infections which almost always result from a common cold. Any cold that lasts over 2 weeks is sinus disease.

George F. Gracey spoke on "Ear and Mastoid Complications." He stated that ear infections are probably the last or latest complication of a common cold.

A letter was read on the emergency relief problems. Points to be remembered in making out bills are: First visit must be within 48 hours before or after the order was received; visits 10 in 2 weeks acute; chronic 1 per week for 2 months; fees, office \$1, home \$2; statements must be in duplicate; all signatures must be in ink.

All relief statements should be addressed to Dauphin County Relief Board. Checks are delayed for the following reason: Mistakes in the bills, 67 counties to be checked; orders are checked by State auditors; all orders not approved are returned to the doctor.

SAMUEL B. FLUKE, *Reporter*.

DELAWARE (EASTERN BRANCH)

Feb. 27, 1934

The society held its meeting at the Nunan-Slook Legion Post, Oakmont.

John A. Kolmer, professor of medicine, Temple University Medical School, discussed "The Treatment of Pneumonia," which was limited to lobar or croupous pneumonia.

Ninety-six per cent of lobar pneumonia cases showed infection caused by the pneumococcus. One to 2 per cent of the cases showed the bacillus of Friedländer, and these cases show a high mortality rate. Occasionally streptococcus infection is found, the causative organism being the streptococcus hemolyticus. These cases are commonly called the influenzal type, and the mortality is high.

Pneumonias are divided into types, called Types 1, 2, and 3; all others fall into what is known as group 4. Of the latter group, Dr. Parke developed 29 types, and the one type which predominates he designates as Type 7. The number of different types of pneumonia complicates the treatment. In this particular locality 50 to 60 per cent of all cases belong to Types 1 and 2, and it is in these types that serum therapy is so encouraging. Thirteen per cent of all cases belong to Type 3, and it is this type that is dreaded because of the high mortality. Thirty-four per cent of cases fall into group 4. Typing is advisable if possible and is the ideal thing to do, but it is expensive and not every laboratory is equipped to do this work in a satisfactory manner. Lack of sputum early in the disease makes it difficult, but in such cases a culture of the nasopharynx supplies the necessary material.

Both typing and blood culturing give an index as to the prognosis, and if one has to choose between the 2 methods, blood culturing will be of more service. Regardless of which method is used, the giving of serum early is of distinct advantage, as the chances of a Type 1 or 2 infection is far greater, and the benefits received are correspondingly greater. Blood cultures are valuable in determining the prognosis and to show the advent of septicemia. A positive culture obtained early indicates that the case is suitable for serum therapy. In cases in which a sterile culture is obtained, serum therapy will be of little value. If the culture at first, and about the third or fourth day, develops a positive culture, it is a sign that the resistance is breaking down with the advent of septicemia, with a bad prognosis.

The following records are from Dr. Kolmer's own cases treated without serum: Type 1, mortality, 30 per cent; type 2, mortality, 30 to 45 per cent; type 3, mortality, 40 to 50 per cent; group 4, mortality, 15 to 30 per cent.

Age influences mortality; less in children than adults. Extent of consolidation influences mortality, involvement of more than one lobe usually doubles the mortality rate.

As to mode of infection it is now thought that the infection travels from the hilar regions of the lungs between the connective tissue of the lobes, and lobules finally reaching the lung structure.

Group 4 infections are common to the mouth and saliva of many. Types 1 and 2 are contracted by means of carriers or contact with case, 50 to 60 per cent of cases are contracted in this manner. Less than one per cent of persons are carriers of the disease. Some persons are naturally immune. Patients recovering from an attack have developed an immunity, lasting for a few years, to the particular type from which they suffered. A second attack may occur but the type will differ from that of the original infection. Exposure and common colds predispose to pneumonia, just how, no one knows.

Recovery from pneumonia depends upon the formation of antibodies which usually appear in 48 hours. Early and large production of antibodies indicates good prognosis. The opposite is also true. Blood cultures are of advantage in determining the formation of antibodies and the oncoming septicemia. Pneumococcus serum contains antibodies, and the serum of Felton, as prepared by Lederle, contains in 10 c. c. as many antibodies as were contained in 100 c. c. of the old serums. Hinton's antibody solution may be useful, as it contains no protein and serum. A unit of serum is the smallest amount of serum which will protect a mouse from 1,000,000 smallest lethal doses of toxin. The ordinary case of pneumonia requires from 50,000 to 100,000 units of serum. Early administration of serum was stressed, and unless it is possible to give at least 4 or 5 doses of serum, it is better not to give any. In severe cases serum is given every 8 hours for 5 doses. It is important to give serum slowly, taking at least 3 minutes to give 1 c. c. Have a hypodermic of adrenalin ready for immediate use in case anaphylaxis develops. Never give serum to a known asthmatic, especially if allergy is known to be due to horse serum. Give serum at short intervals to prevent anaphylaxis. If serum has been previously given, it is best to test for sensitiveness, either by the eye test or the intradermal test.

Results of serum therapy on cases:

Type 1, receiving serum, mortality	12 to 17 per cent
" " no serum "	25 to 35 per cent

Type 2, receiving serum mortality	28 per cent
" " no serum "	46 per cent
Type 3, receiving serum "	40 per cent
" " no serum "	47 per cent
Group 4, serum in these cases sometimes reduces mortality	10 per cent

Treatment: Solis-Cohen long ago recommended the administration of quinine, given in the muscle in the form of quinine and urea hydrochloride; given by mouth it is of little benefit. Optochin tablets 5 grains, given by mouth with milk every 5 hours in the early stages tends to combat septicemia. Oxygen: Dr. Kolmer said his slogan is to keep the nails pink. He advised giving oxygen in a tent if possible, or by a tube in the nasopharynx. The giving of oxygen before the nose is of no value. Fluids: Give abundance, 2000 or 3000 c. c. daily intake. Opiates: To be used cautiously. Codeine is of little value. Morphine to combat pleurisy pains and excessive cough is of value. Digitalis: Young persons under age 30 require little if any, if over age 30 give small doses of the leaves, not sufficient to digitalize. Adrenalin: Best drug to combat cardiac failure. Alcohol: Of little value except in alcoholics. Pneumonia jackets applied to all patients. Tympanites best controlled by enema of equal parts of milk and molasses.

In discussion, I. Burton Roberts asked if during the administration of serum anaphylaxis develops and is controlled by adrenalin, may the doctor continue giving the serum. Dr. Kolmer answered, "No." Dr. Kolmer considers that the passing of a bronchoscope will cause such distress, the exertion will do harm, and he could not see how a drainage would influence a pneumonitis. He could see the advantage in atelectasis and advises its use in these cases. P. L. Mehning inquired if blood cultures should be taken at frequent intervals. Dr. Kolmer advised that one be taken early which is usually all that is required, however, if the case is severe another culture taken in about 4 days would aid in the prognosis. H. B. Fuller asked if a blood culture was made in the very early stages of the disease, would it show a positive result. Dr. Kolmer replied that this brings up the question of blood stream infection, and that most cases were not seen so early in the disease. Charles S. Aitken asked if the administration of serum affects the clinical course of the disease. Dr. Kolmer said only in type 1 cases in which the results are sometimes dramatic. The administration of serum lowers the incidence of complications especially empyema and otitis media. Incidence of empyema in type 1 is 6 per cent; in types 2, 3, and group 4 it is 3 per cent. Typing is to be preferred to blood cultures. All the hospital cases are typed as routine procedure. Serum therapy is of little value in streptococcus hemolyticus infections. Blood transfusions are advised. John J. Sweeney asked if mustard poultices are of value. Dr. Kolmer said they are if diluted 1 : 10. Dr. Kolmer stated that the administration of serum does not hasten the crisis, but it lessens the toxemia and most of his cases end by lysis. Hunter Cook inquired concerning lung puncture for obtaining material for typing. Dr. Kolmer said this could be done without much danger but it is a heroic procedure. Dr. Cook inquired concerning the developing of anaphylaxis. In answer, Dr. Kolmer said that aside from the acute alarming reactions, about 10 per cent develop a thermal reaction a few hours after administration of serum and the temperature rises; 25 per cent of cases receiving serum show a serum rash and joint pains about 10 days after administration.

AUGUSTUS H. CLAGETT, Secretary.

ERIE

March 6, 1934

The meeting was held in the auditorium of Hamot Hospital, Erie, Frank B. Krimmel presiding. A date in May was proposed for a postgraduate clinic under the auspices of the Erie County Medical Society.

Howard L. Stitt, Cincinnati, Ohio, discussed "Bronchiectasis." Dr. Stitt pointed out that in pulmonary suppuration of all types, the presence of the cough reflex saves the patient, since without it he would drown in his own secretions. While the cough reflex is valuable it is not sufficient to effect a cure since coughing releases only a portion of the secretions but the remaining secretions which are not raised by the cough do much harm since they contain bacteria and toxins. If complete drainage is accomplished by mechanical means, the body has a chance to cure itself. Any method which liquefies secretions and helps drainage does much to effect a cure. Fundamentally, the body must cure itself and the ultimate cure of all diseases depends upon a further knowledge of the chemistry of protoplasm. Dr. Stitt exhibited several types of instruments which he uses as well as the catheters used for bronchial lavage and drainage; and a motion picture illustrating the technic of bronchial lavage.

BENJAMIN GOLDMAN, *Reporter*.

HUNTINGDON

March 16, 1934

The meeting was held at the J. C. Blair Hospital, Huntingdon, William T. Hunt presiding. The meeting had been postponed one week on account of the funeral of one of its members, A. Hank Evans, of Saxton.

Harry C. McClain, Saxton, Bedford County, was proposed for membership, to be acted on at the next meeting. Howard C. Frontz announced that the Sixth Councilor District meeting would be held May 24, at the Nittany Lion Inn, State College.

John S. Herkness gave several case reports. Case 1.—A woman, age 35, showing 4 years ago an ulceration of the cervix. Cervix amputated and microscopic examination showed definite carcinomatous degeneration. Several radiation treatments also given. After 4 years there is no recurrence of cancer. Case 2.—Man, age 65, began to have fever 102° to 104° F. with tight cough. Did not appear very ill. No pneumonic signs demonstrable. After 6 days had a definite crisis with prostration. On the day following crisis both lower lobes consolidated. On third day following, patient died. Conclusion reached that first attack was a central pneumonia, spreading to lower lobes following the crisis.

Howard V. Locke reported several cases in which scarlet fever and diphtheria occurred simultaneously in same patient.

In discussion, Charles R. Reiners reported that several men advise using both antistreptococcic and antidiphtheritic sera in cases of severe sore throat. Cloy G. Brumbaugh stated his stand on any ulceration of the cervix with erosion is such cases that did not clear up under conscientious treatment by tampons and douches must be considered as cancer until proved otherwise.

George A. Parker was appointed chairman of a subcommittee on mental hygiene, part of the Public Relations Committee.

It was decided to adopt the offer of the State Sec-

retary's office to furnish the members of the County Society with a bulletin of County Society affairs.

WALTER ORTHNER, *Reporter*.

LACKAWANNA

Feb. 6, 1934

The meeting was held at Scranton, President Walter W. Propst presided. William F. Rienhoff, Jr., chief of the Thyroid Clinic of Johns Hopkins Hospital, Baltimore, gave an address on "Hyperthyroidism." Illustrations of pathologic sections demonstrated the histologic changes; the type of patient and mechanism of operative procedure were also illustrated by numerous photographic slides. "One of the greatest problems is the use of iodine therapeutically and preoperatively. Many patients take patent goiter cures, which contain iodine, before seeing a doctor. Today, we rarely see a patient who has not had iodine in some form. Because of this, there is great difficulty in establishing an 'iodine remission' and it is frequently necessary to resort to multiple stage operations. Iodine should never be used, excepting just before the surgeon is seen. The employment of iodine is a diagnostic test as well as a therapeutic aid. If cessation of the medication is followed by a rise in the basal metabolic rate, active and immediate operative procedure is indicated.

"If iodine is given postoperatively, it is uncertain whether the fall in pulse and basal metabolic rate is due to the medication or to the operation, as they will generally fall to normal after the fourth day in cases of true hyperthyroidism. There is no indication for iodine therapy after correct operative removal of the thyroid gland.

"Roentgen-ray therapy for hyperthyroidism, in the face of an operation which gives improvement in 85 per cent of the cases, is seldom indicated. Results of deep therapy have been questionable and operation has been generally eventual. Radiation makes subsequent operation much more difficult and there is always the question of how much damage is done to the parathyroids."

Feb. 13

The monthly business meeting was in charge of President Walter W. Propst. It was announced that C. W. A. workers were to be given full compensation privileges, including choice of physician. Examinations for entrance to "transient" and "jungle" camps have been very few. Instead of the expected 500 applicants during the winter months, less than 50 have been seen.

Plans have been shaping up rapidly for the establishment of a Central Rating Bureau by the local Community Chest. This bureau is to rate all those who apply for treatment on charity services of the several welfare organizations, eliminating duplication of effort and definitely establishing the economic status of the applicant.

Within the next few weeks, a mental hygiene clinic is to be established. Dr. Holbrook, superintendent of the Farview State Hospital for the Criminal Insane, will be one of the staff.

Feb. 20

The guest speaker was John T. Farrell, Jr., associate professor of roentgenology at Jefferson Medical College, Philadelphia, who spoke upon "The Role of the Roentgenologist in the Diagnosis and Treatment of Nontuberculous Pulmonary Disease." Dr. Farrell said in part:

"In the study of pulmonary disease, each roentgenologist must ask himself: 1. Is the chest normal? 2. Is there tuberculosis? 3. Is there other pathology? 4. Can there be effectual treatment? The case history and the presenting symptoms must be taken into consideration in arriving at any conclusions.

"A great advance in roentgenologic diagnosis has come through the use of pneumography, visualization by the employment of iodized oil. The oil may be given in many ways. Indirect methods include injection over the glottis by syringe; injection by needle through the neck; and the Ochsner method of first paralyzing deglutition and then running the oil into the larynx. By manipulating the patient under the fluoroscope, it is possible to direct the oil to the portion of the lung which is to be studied. This maneuver, however, is quite difficult. The most approved method of visualization of the pulmonary architecture is by administering the oil directly by means of the bronchoscope. Thus one may pick the suspected bronchus after aspiration of foreign materials.

"Two conditions which are frequently missed are syphilis of the lung and tracheal foreign body. The former diagnosis must be largely proved by therapeutic test. The latter causes little pathology and is most frequently missed. In the roentgen-ray treatment of pulmonary cancer, the results at first seemed brilliant. Some cases with adenocarcinoma have shown marked improvement, a few 10-year cures having been reported. A certain number of patients with lymphatic tumors get well. Most Hodgkin's disease patients do well at first and then go bad. Small doses of roentgen ray must be given in proportion to the general reaction of the patient.

"In asthmatics, there are frequently found changes in the lower portions of the lungs resembling bronchiectasis, most of which prove normal on lipiodal injection. In the deep therapy of this condition, radiation was tried over the spleen, the chest, and the sinuses. The best results were seen in those cases in which the sinuses were radiated.

"Treatment of pulmonary abscess should include: expectant treatment, with bed rest, cough medicine and postural drainage; then if postural drainage fails, bronchoscopic drainage must be used. In the presence of an empyema, open drainage is the method of choice."

Feb. 27

Professor Richard Bauer, of the University of Vienna was the guest speaker. At a dinner preceding the meeting, Dr. Bauer was entertained by a number of local physicians who had been his pupils in Vienna. He stated that reports of recent Austrian troubles in suppressing the Socialists were exaggerated. Work in the schools and hospitals with which he was connected has continued normally and without disturbance. Taking as his topic, "Certain Aspects of Coma and Their Treatment," Prof. Bauer said in part:

We are prone to consider all cases of uremic coma as being nephritic in origin. He discussed coma, uremic in type, but nonnephritic in origin. At times, we see a coma, hepatic in origin, in the acute stages of which the patient is frankly jaundiced. In subacute hepatic disease, jaundice may be in evidence only in the last stages. A pseudo-uremia is sometimes seen in edema of the brain with no marked increase in the blood nitrogen.

Another aspect of nonnephritic uremia, first described in 1927 is due to hypochlorhydria and dehydration.

This is seen in cases with loss of chloride, followed by a decrease in the nonprotein nitrogen of the blood. There is a marked drop in the blood chlorides in acute pancreatic disease. Likewise, one may have a supranal gland coma in Addison's disease.

Frequently, on large surgical services, one sees postoperative collapse and coma following a simple operation. It has been shown that in all postoperative cases, the blood urea nitrogen rises on the first and second day, decreasing on the third day, if there is a normal postoperative course. If complications occur, such as vomiting, there is loss of blood chloride and uremia results. The blood pressure is lowered, circulation in the liver is decreased and definite organic damage follows. Several case histories were given:

Case 1. Pancreatic Coma. A moribund, cachectic woman who had been vomiting for several weeks, complained of epigastric pain. There were no urinary chlorides and a diagnosis of secondary uremia due to hypochloremia and carcinoma of stomach and pancreas was made. She was given chlorides by rectum, intravenously and subcutaneously and came out of coma. The blood chlorides soon came up to normal but none could be found in the urine until the blood chlorides were 600 mg. per cent. In this case the blood urea nitrogen was not above 25 mg. per cent.

Case 2. Hepatic Coma. Markedly enlarged liver but no jaundice. Blood urea nitrogen was 320 mg. per cent. Given ampules of liver extract concentrate daily, subcutaneously, with cessation of coma, general improvement and gradual decrease in blood nitrogen.

Case 3. A man age 90 with orchitis, myocarditis, and chronic uremia was given liver extract hypodermically in daily doses with improvement and eventual recovery.

Liver extract has been shown to have a profound effect in all cases of hypochloremia of any cause. It is particularly of value in cases of hyperemesis gravidarum and postoperative shock. As a prophylactic measure, it may be given intramuscularly after narcosis.

The many deaths, in or following diabetic coma, are due to a decreased liver function and consequent rise in the blood urea. Liver extract, given hypodermically, definitely increases elimination of urea. This is not true following the commonly accepted treatment of hepatic disease by insulin and glucose.

Finally, when one considers the many chemical factors which come into play before the final production of the concentrated form of liver extract, one realizes that there must be an almost indestructible hormone present which can stimulate the hepatic cells to further function.

FREDERIC B. DAVIES, *Reporter*.

LANCASTER

Feb. 7, 1934

The annual banquet of the Lancaster City and County Medical Society was held on the regular meeting night. Women were invited and the entertainment took the form of dancing and cards, with a short floor show during the intermission.

The retiring president of the society, Elmer T. Prizer, before installing the new officers, gave an address on the history of medicine.

Theodore B. Appel, State Secretary of Health, District Councilor Clarence R. Phillips, of Harrisburg, and Moses Behrend, president-elect of the State Medical Society, were among the speakers.

LEHIGH

Feb. 13, 1934

The monthly meeting was held at the Hotel Traylor, Allentown. Frank S. Boyer presided. Edward J. G. Beardsley, clinical professor of medicine, Jefferson Medical College, Philadelphia, spoke on the "Golden Rule of Medicine." He said in part:

Before we criticize the members of the pseudomedical cults would it not be wise to set our own professional houses in order? These cults exist, in great measure, because we have failed to give our former patients either psychical or physical help. Physicians have, all too frequently, treated the disease instead of the patient.

A patient or, even more frequently the patient's family, expects a consulting physician to be able, in a brief interview and physical examination, to learn as much regarding the psychic and physical state of the patient as the family physician has been able to learn in years of continued observation. This attitude of mind of the nonprofessional is understandable but should not obscure the truth in the mind of either the consultant or the family physician.

A specialist who indulges in the tendency to center his entire professional attention upon an organ or set of organs and ignore the interrelation of all organs of the body is, as a rule, less helpful to his patients and to his fellow physicians than is the specialist whose training and experience have made the patient his first interest.

"The Golden Rule of Medicine" is but an every day application in our profession of the "Golden Rule" of life, namely, to treat every patient as one would wish to be treated if one were the patient; or, even better, to treat every patient as though that individual were near and dear to us.

Harold A. Miller, of Pittsburgh, head of the State Emergency Medical Relief Board, presented certain aspects of the administration of relief funds and invited a general discussion concerning any unfamiliar aspects. George L. Laverty, Harrisburg, opened the general discussion. B. Franklin Royer, of the State Child Welfare Committee, presented the plans and program of his Statewide Committee.

The following physicians were admitted as new members: Cornelius A. Gallagher, Allentown; Constantine J. Adamiak, Catasauqua; Warren Harris Endres, Chapman's Station.

VAUGHAN SPRENKLE, *Reporter.*

LUZERNE

Feb. 7, 1934

The regular bimonthly meeting was held in the Medical Building, Wilkes-Barre; Edward W. Bixby presided. D. H. Hershfield and S. R. Kaufman were elected to membership. It was reported that the library contains 9650 volumes; 225 volumes were acquired during the past year.

Joseph M. Harrigan read a paper on "Management of Maternity Cases and Their Complications." Of all the modern methods of diagnosis of early pregnancy, none can supersede the Aschheim-Zondek urinary test. In the Friedman modification of this test, white rabbits are used instead of white mice. The Bercovitz pupillary test is impaired greatly by the difficulty in reading the result. The Hoffman test consists of using blood serum instead of urine, is as accurate as the Aschheim-Zondek test, and requires only 24 hours for its result.

Prenatal care is the dominant factor in reducing the maternal and fetal mortality. The routine case should consist of: A Wassermann or Kahn test; urine analysis at regular intervals; pelvimetry, especially in primiparas; blood counts are important in suspected anemias; careful diet supervision; exercise, of a modified form, often is neglected; a careful check on the blood pressure is the most important single factor in all cases; and basal metabolic determination is imperative in suspected thyroids.

Such clinical findings as edema, arterial hypertension, and cerebral cardiac manifestations can all be attributed to a generalized tissue intoxication rather than renal inadequacy. Hoffman and Anselmino, during the past two years, have demonstrated that the nephropathies of pregnancy and eclampsia are due to secretory dysfunction, which are pluriglandular.

Dropsy is the first manifestation of eclampsia. Urinalysis will give a forewarning of developing nephritis. At the Marburg Clinic in Germany, nephritis combined with high blood pressure is treated with a salt-free diet with limited fluid intake of 200 c. c. in 24 hours. A patient, if in labor at this stage and with a blood pressure above 150 should be delivered at once. If not, eclampsia will develop. Oral use of alkalis as well as intravenous use, will prove most valuable in overcoming the acid intoxication. Hofbauer recommends the use of alkaline therapy in pyelitis. At present, encouraged by the success of it in pyelitis, he uses it as a routine prophylactic on all cases of pregnancy after the fifth month 3 times a week.

Cesarean section is the worst way to treat eclampsia. By the use of the dehydration method of Arnold and Fay, there is a lessening of the cerebral pressure, thus limiting the frequency of convulsive seizures. Lumbar puncture should be done judiciously. Venous section in cases of hypertension is of temporary aid. As to the use of morphine and magnesium sulphate; morphine decreases convulsive attacks through narcosis, and the latter has a relaxing as well as hygroscopic action.

Latent diabetes is a source of danger in pregnancy due to the difficulty of control. If danger of the unborn child threatens, cesarean section should be considered shortly before the apparent term. General anesthesia should be avoided, because of precipitating coma. If the blood sugar is checked carefully, and sufficient insulin is given, the danger from sloughing caused by infiltration anesthesia will be practically abolished.

The Gwathmey method of synergistic analgesia is very satisfactory for labor anesthesia. The barbiturates are mentioned only to be condemned. Nitrous oxide or ethylene and oxygen is an excellent anesthetic. Ether by the open method is ideal for the home. Chloroform is not safe. Parasacral anesthesia, as used by Tucker and Benaron of the Chicago Maternity, is ideal; the technic however is difficult.

Postpartum hemorrhage: Predominating factors are prolonged labor, especially in the third stage, hydramnios, multiple pregnancies, gigantic children, and the probable attachment area of the placenta. The use of intravenous pituitrin, uterine tampons, and blood transfusions are much to be desired in treating such hemorrhages.

The postulates for forceps delivery are: Hasty diagnosis of the indication for applying forceps is to be avoided; the presence of the necessary prerequisites for forceps delivery should be ascertained. No cephalopelvic disproportion. An absolute diagnosis of head position. Cervical dilation complete. A biparietal ap-

plication of the blades; sepsis; use the types of instruments with which you are most familiar.

In discussion, Joseph J. Kocyan considers that regularly ascertaining the weight of the patient is also important and will tell much of an impending disaster. Supply the needs in every way as well as watch the normal condition. Early diagnosis of abnormal conditions when in labor is important.

Feb. 21

Seventy-five members attended the meeting, Edward W. Bixby presiding. Henry F. Hunt, division of medical research and pathologist, Geisinger Memorial Hospital, Danville, Pa., read a paper on "Common Blood Dyscrasias."

He said in part: By diseases of the blood is ordinarily understood those pathologic conditions which are associated with abnormalities in the number or character of the blood cells. When such abnormalities occur, there is always evidence in the circulating blood of a more or less change in the so-called fixed or stationary blood cells. There may be, in certain diseases, an increase of the immature cells in the circulating fluid; in others a decrease. In either case if one attempts to understand these conditions the recognition of a fundamental change in the primitive blood cells must be admitted.

One of the greatest hematologic problems is the question of hematopoiesis. At the present time hematologists are divided into 2 main schools of thought, those who believe that each type of formed element of the blood has an ancestor whose developmental possibilities are strictly limited by its own constitution, and those who believe that there exists in the body a type cell capable of giving rise to all forms of blood cells. Basically, we know that all cells have a common ancestor, but the point of contention is whether this cell in turn develops a potential blood cell or a number of primitive blood cells. Warthin, in "The Creed of a Biologist," in discussing religion states that "man must believe something otherwise the universe cannot be rationalized and all is chaos or ultimate despair." This same thought holds true for one studying this subject.

According to the hematologists the theory to which Dr. Hunt adheres is considered a "Modified Monophyletic or Unitarian View," that is, that all blood cells originate from the same type cell—the reticulo-endothelial cell. This cell originates from the mesenchyme cell. They are found in many parts of the body, *i. e.*, the cords and medullary follicles of the lymph nodes, many of the cells of the splenic pulp, the lining cells of the splenic sinuses, the stellate cells of Kupffer in the liver, and the lining cells of capillaries in the formative bone marrow. The part that these cells play in the formation of the blood cells is clearly demonstrated by examination of tissues obtained from patients dying as a result of blood dyscrasias. For example, in acute or chronic leukemia, wherever reticulo-endothelial cells are present, there may be found areas of proliferation of these cells, resulting in the formation of myelocytes and/or lymphoblasts. In these cases the type of predominating primitive cell that results from the proliferation determines the type of predominating cell found in the circulation; this in turn gives a criterion for classifying, if possible, the disease as a myelogenous or lymphatic leukemia.

The myeloblasts are derived by direct descent the lymphoblast, the myelocytes, and in extra-uterine life the normoblast. During intra-uterine life, the megaloblast is one of the first cells to make its appearance in

the blood islet of the yolk sac and later in the primitive liver. It is from this cell that the majority of the erythrocytes present in the circulation during fetal life are derived. The appearance of megaloblast in post-fetal life is always associated with a poor quality of bone marrow in the person concerned, example, pernicious anemia. According to Piney, the ordinary normoblasts develop in the periportal connective tissue and later in the bone marrow. They are essentially of mesenchymal origin.

The adult monocyte has many of the morphologic characteristics of the myeloid cell and some claim to have found all varieties of transition between the myeloblast and the monocyte. On the other hand, the origin of this cell is thought to be direct from the reticulo-endothelium and hence from the myeloblast.

Clinical signs and symptoms of secondary anemia always occur as an incident in a primary disease. The diagnosis is clinically obvious if bleeding is external. If internal, it should not present difficulty except in typhoid fever, when distinction from perforation is necessary. There are a reduction of all elements of the blood, a deficiency in the hemoglobin in the red cells, a neutrophilic leukocytosis usually, normoblasts and other signs of red cell regeneration.

In pernicious anemia, the blood is thin and watery, marked diminution in the number of red cells which show all signs of immaturity—anisocytosis poikilocytosis, and polychromasia. The average size of the red cells is increased, and many megalocytes are present. Megaloblasts are always present but sometimes many slides must be examined before they are found. The finding of this cell makes the diagnosis of pernicious anemia certain.

Following a relapse, if recovery has occurred rapidly without liver treatment, a blood picture is a prominent polycrasia. Following liver treatment the picture is: Many normoblasts at first with a decrease later; presence of reticulocytes, becoming less until they disappear. This count is an excellent index as to the efficiency of the treatment. Under acute leukemia, all acute forms of the so-called leukemias, acute lymphatic, acute myelogenous and acute monocytic. The symptoms are: Weakness, headache, fever, asthenia, intense toxemia, and physical signs of stomatitis, pallor, hemorrhages from the mucous membranes, purpura, and lymph node enlargement. The blood smear shows many mononuclear cells of the lymphoblast, myeloblast or monoblast type. There is usually an increase in the number of adult forms of the predominating primitive cells. If the monoblasts and monocytes predominate, acute monocytic leukemia may be diagnosed. In all conditions a profound anemia may occur.

In chronic leukemia, the lymphatic and myeloid types are much more distinct. The onset is insidious with weakness, headache and fever. In the myeloid type the complaint that leads to consult a physician is abdominal enlargement or pain in the left side. In the lymphatic type, splenomegaly occurs but not so early or so marked in the myeloid. There is also enlargement of the superficial lymph nodes. The blood picture in the lymphatic form shows a preponderance of lymphoblasts and myeloblasts, if the latter predominate, the disease is always indistinguishable from the myeloid type.

In discussion, Gordon E. Baker said it is true that there should be a definite or standard nomenclature for this type of work as so many names are used. The laboratory has an important part but the diagnosis of pernicious anemia should be made before blood changes

occur. One finds an atypical type in which the blood picture is not definite. Thomas J. Dailey said that megaloblasts are an important finding in pernicious anemia. The acute mononucleosis has a less high leukocytosis. In the myeloid leukemia, there is pain often similar to arthritis. Marked dyspnea and marked jugular pulsation are present in the acute leukosis.

In closing, Dr. Hunt said that one can diagnose a case of pernicious anemia before the laboratory does.

March 7

The meeting was held in the Medical Building, Wilkes-Barre, with President Edward W. Bixby in the chair. Walter J. Larkin, Scranton, read a paper on "A New Office Procedure for the Treatment of Essential Dysmenorrhea."

The older writers knew that this was caused by a contraction of the uterus. Graves in his last edition says, it is a disturbance characterized by cramplike pains at the time of menstruation and free from the pains the rest of the month. They usually begin one-half hour or a day before and last one-half or a whole day after the flow begins. Mackintosh, in 1832, said it was due to a kink in the uterus or a contraction of the canal of it. Sims said that if the canal of the cervix is large enough there will be no pain.

In 1920, Emil Novak, of Baltimore, found that he could pass a probe through the cervix while the patient was having cramps and so concluded that there was no obstruction in the cervix. He thus broke down the theory that obstruction in the cervix was the cause of pain. A second theory is the psychic element. The fear which one has at the first menstrual period continues with the person and so pain is experienced at each succeeding period. A third theory is that of the hypoplastic group. Many women having an infantile uterus seldom have pain. Fourth theory is that constitutional factors, lowered resistance, overwork, anemia, etc., are causes. By correction, or relief of any of these conditions the condition is improved. The fifth theory is the hormone theory, and was first given out in 1932 by Samuel Reynolds and Emil Novak. The anterior pituitary body elaborates two hormones prolactin A and B. Prolactin A is the gonad hormone which governs the onset of puberty. It is called the stimulating apparatus of the pituitary body. It also has to do with the 28-day cycle of the menstrual function. Prolactin B luteinizes the follicles. Pregnancy can occur as low as the sixth day after the period. The estrin aids in preparing the endometrium for the reception of the fertilized ova. Prolactin B is converted into the corpus luteum. If no pregnancy occurs then the endometrium is cast off in the menstrual flow. The corpus luteum is elaborating large amounts of estrin to the twenty-seventh day. This theory was given by these last named men in *J. A. M. A.*, 1932. They proved that the cause of the irritability is in the uterus. Injected estrin caused contractions. Injected progesterin caused no contractions. Anterior pituitary hormone also caused contractions. The corpus luteum prevents one from going into labor. They said that essential dysmenorrhea was caused by too much estrin. At the twelfth day, the follicle ruptures and the ova is thrown out into the uterus.

We wondered if by dilating the cervix, one could increase the anterior pituitary hormone. With this question in mind we began by dilating the cervix of young married women with no children and later used a group of those with children. Group 1: 22 cases were dilated 10 to 14 days after the last period when the corpus luteum was forming; 63.6 per cent were improved; 36.3 per

cent were not improved. Group 2: 31 cases were done 1 to 3 days before the expected menses; 80.6 per cent were improved; 6 per cent not improved. Group 3: 54 cases were dilated twice a month as above; 90.7 per cent were improved; 5 per cent were not improved.

The procedure is simple. The necessary instruments are 3 graduated small dilators, a small or large speculum, and cleansing the vagina and cervix. Some pain is caused but not intense.

In discussion, Dr. Kocyan, Wilkes-Barre, said in part that a rational basis of therapy had been given by the speaker. The medical treatment has always been a failure. Remedies give only temporary relief.

Lachlan M. Cattanch, Wilkes-Barre, asked concerning the result in 5 to 6 months after the dilatation. Can the procedure be done twice yearly? Would subsequent dilatations be as effective as the first?

Dr. Larkin, in closing, said that the stem pessary is a cervical dilatation. It can be done in the office without an anesthetic. The procedure is safe. The largest dilator must be left in for several minutes. One can dilate again after several months if relief was obtained after the first dilatation.

MAJORIE E. REED, *Reporter.*

LUZERNE (HAZLETON BRANCH)

March 14, 1934

The meeting was held at the Hazleton State Hospital. Peter P. Mayock, of Wilkes-Barre, addressed the society on "Renal Anomalies." This paper was reviewed and summarized in the February *JOURNAL*, p. 438, after having been read before the parent branch of the Luzerne County Medical Society. Following the scientific program supper was served at the hospital; Robert A. Gaughan, superintendent, was host.

JOHN M. DYSON, *Reporter.*

LYCOMING

Feb. 9, 1934

The meeting was held in Medical Hall, Wilkes-Barre, at 1:45 p. m.

Reports of various committees included a report by Charles W. Youngman, Jr., of the meeting held with the local C. W. A. administrator covering medical work of such employees. Medical work is to be handled by the physician of the patient's choice. In the event of hospitalization and no choice, the work is to go to the chief of staff in that department. The same policy is to be followed in C. C. C. cases.

Considerable time was taken in discussion and explanation concerning Emergency Relief Work.

The scientific program included case reports of surgical lesions of the stomach by John P. Harley with roentgenograms and blackboard illustrations.

Case 1.—Male, age 39, white. Dilated stomach caused by adhesions at pylorus and duodenum. Studies revealed hyperacidity. Had had a cholecystectomy and appendectomy in 1918. Practically unable to retain food and had lost approximately 35 pounds. Operation was done through a right upper rectus incision. Dense adhesions from pylorus and duodenum to liver were separated and an omental graft used to cover the raw area. Duodenal ulcer which was one of the preoperative diagnoses could not be found. He was placed on the usual medical management of ulcer and has made a

very satisfactory convalescence, gaining about 35 pounds. Subsequent roentgenograms show the stomach smaller and tone greater.

Case 2.—Male, white, age 56, referred to abdominal service with a history of indigestion for 10 years, off and on, but of late growing worse. Has lost greatly in weight and has been vomiting. His physician thought he felt a mass in the epigastrium and referred him for study and treatment. Roentgen-ray studies showed ulcer at the pyloric region with annular infiltration, possibly malignant. Acidity normal. Operation: Subtotal gastric resection. Aside from vomiting some blood on the second day after operation the convalescence was uneventful. Following operation his diet was rigidly supervised and he has gained considerable weight. Follow-up roentgenograms show peristalsis and tone normal and anastomosis working well. Histologic study of lesion and glands removed were negative for malignancy.

Case 3.—Baby about a year old swallowed a good size safety pin, open, about 10 days prior to admission. There were no symptoms until a day or two prior to admission, then the child developed colicky pain in the abdomen with vomiting. Roentgen ray revealed the open safety pin in the first portion of the duodenum, with open end lying distally, thus preventing the pin from passing on. Because of the increasing severity of the symptoms a laparotomy was done. Considering the disadvantages of a duodenal fistula an effort was made to milk the pin back through the pylorus into the stomach, which was successful. An avascular portion of the stomach was selected and the pin removed through an opening at this site. The wound was closed in the usual manner. The child made an uninterrupted recovery. It might have been possible to have closed the pin and removed it with an esophagoscope, after bringing it back into the stomach, rather than to have done a gastrotomy.

Case 4.—An elderly obese female, Jewess, entered the abdominal service with a past history of inability to swallow, and vomiting. Food seemed to lodge in her throat. Finally everything swallowed was regurgitated. Roentgenograms, 2 months after the onset of the symptoms, were negative; a roentgenogram 1 month later showed a lesion in the lower end of the esophagus. By this time the patient had lost 30 or 40 pounds. A general physical examination was negative. A diagnosis of carcinoma of the lower end of the esophagus was made, with secondary anemia. Operation, gastrostomy.

Case 5.—White male, age 48. Admitted with chief complaint of pain in the upper abdomen, and a gnawing feeling in the epigastrium. For the past 3 years, has been developing a feeling of distention and belching of gas, with pains on an empty stomach, relieved by food. This patient illustrated the periodicity that often is characteristic of ulcer. About a month prior to admission had an attack of pain which was not easily relieved. Following study, a diagnosis of ulcer of the lesser curvature of the stomach was made. At operation it was found advisable to do an excision of the ulcer, and to follow the operation with appropriate medical treatment. Convalescence was satisfactory.

Case 6.—A thin, white female, age 50, with pain in the upper abdomen. She had been previously studied in the hospital and a deformity of the duodenal cap demonstrated with roentgen ray, but was discharged after refusing operation, with a diagnosis of cholecys-

titis and cholelithiasis. Has remained fairly well until about 3 months prior to admission when she began to have attacks of severe pain in the upper abdomen, accompanied by vomiting. The pain was worse in the late afternoon and at night. Because of the inability to retain food she had lost considerable weight. She also had been complaining of rather marked menorrhagia and metrorrhagia. An exploratory operation was done with the idea of removing the gallbladder but a normal gallbladder was found. An indurated area in the duodenum was found and diagnosed duodenal ulcer. A posterior gastro-enterostomy was then done. A D. and C. was also done and a sterilizing dose of radium introduced into the uterine cavity.

A. Rowland Kirch reported a case of trichinosis. The patient had been living alone in the country and had been cooking for himself, some of his food consisting of sausage insufficiently fried. He came to the outpatient department of the hospital complaining of severe muscular pains all through the body, including the face. A complete blood count revealed a definite eosinophilia. On the strength of this a biopsy was done from one of the calf muscles in which he was suffering pain and typical trichinosis cysts were found. The gastro-intestinal tract was emptied with a saline laxative and santonin administered as an anthelmintic, followed with symptomatic treatment. At the present time he seems improved but the prognosis is guardedly good.

LARUE M. HOFFMAN, *Reporter.*

McKEAN

Feb. 21, 1934

Werner Rose, assistant professor of medicine, University of Buffalo, Buffalo, New York, gave an address at the meeting held at the Emery Hotel, Bradford, on "The Importance of the Electrocardiograph to the General Practitioner." He emphasized that the electrocardiogram is not necessary to determine all is not well with the heart if it is greatly enlarged, or if the patient is confined in bed with congestive heart failure. The electrocardiogram is most valuable in those cases in which the physical examination is entirely negative. Dyspnea, palpitation, tachycardia, fatigue, or chest pain which is not typically anginal should not be attributed to heart disease, unless the heart can be demonstrated to be abnormal. These symptoms may be produced by primary or secondary anemia, pulmonary disease, or psychoneurosis.

The electrocardiogram may demonstrate evidence of myocardial damage if other signs fail to show that the heart has been attacked during the course of rheumatic fever or chorea, or during recovery from an acute febrile disease and thus lead to a guarded convalescence. The electrocardiograph frequently detects changes in the heart in essential hypertension before physical signs develop. The electrocardiogram is very frequently characteristic in coronary thrombosis, and often offers the only evidence that an infarct has taken place.

Large doses of digitalis should not be administered to patients with cardiac failure and rapid ventricular rate until the electrocardiogram has been taken. The tachycardia may be of the type which is made worse by digitalis.

The electrocardiogram is also important in diagnosing certain valve lesions when the murmurs may be inaudible or indistinct because of cardiac failure.

Lantern slides illustrating both normal and abnormal electrocardiograms were shown.

Dr. Rose reported a case of myocardial degeneration with hypertension, systolic blood pressure 195, in which the patient had frequent attacks of angina. All the usual methods of treatment had failed to give relief. Complete resection of the thyroid gland was performed; 2 weeks following the operation there had been no attacks of angina and the blood pressure had dropped to 124.

HILDING A. NELSON, *Reporter*.

MIFFLIN

Feb. 1, 1934

The meeting was held at the Lewistown Hospital, A. Reid Leopold presiding. Charles J. Stambaugh, of Reedsville, was elected to a term of 3 years as censor to succeed Frederick A. Rupp, resigned.

James G. Koshland, of Lewistown, read a paper on "Squint," saying in part: He deplored the prevalent opinion of advice given to parents that the child will outgrow a squint. This assertion has done so much harm that every physician should try to overcome it. The time to get the best results in the treatment of squint cases is before age 6, because the act of fusing the retinal images from each eye so as to obtain binocular vision starts before the sixth month and is fully developed by age 6. It is very difficult and often impossible to develop any fusing sense after age 6, especially in a child who has squinted from infancy and besides the sight of the squinting eye which was probably deficient to begin with has been greatly weakened by its years of disuse so that the eye has no incentive to focus or fix in direction because of the impaired vision.

Squint is caused by 2 things; poor sight in the squinting eye and partial or total absence of fusion sense. It is more difficult to cure a squint that has existed since infancy than cases developed around age 3 to 4. Cases of alternating squint where each eye takes a turn at squinting do not respond well to any kind of treatment. Glasses will improve the vision. As to treatment, the first step is accurate refraction, using atropine in those under age 16, and hyoscine for the older subjects. In small children a nearly full correction should be prescribed and the glasses worn continuously. A child age one can wear glasses. The usual suggestions were advised for developing fusion, the latest of which is the Maddox cheiroscope. The surgical procedures were mentioned as they are highly successful, more especially from the standpoint of cosmetic results.

March 1

The meeting was held at the Lewistown Hospital, Lewistown, President A. Reid Leopold in the chair. The latest interpretations of the rulings of the State Emergency Relief Board were discussed. Considerable objection to the prenatal requirements of 6 visits was made. Many of the women do not call a physician until labor ensues; according to the ruling made, the physician will not be paid for such cases. To meet this condition, some of the physicians have privately decided not to render any services at all for such cases. It is realized that emergencies arise, and that this act is for Emergency Relief, not for the working out of social and educational policies for prenatal women, even if the aim is for the reduction of fetal and maternal mortality. The class of persons who are "on the relief" in many cases resent this type of work and refuse to cooperate. This is not an isolated instance, but has occurred many times in the past 2 months when efforts to have cases checked up have failed.

James A. Clarkson, of Lewistown, read a paper on "Myxedema."

A. REID LEOPOLD, *Reporter*.

MONROE

March 8, 1934

Francis S. Dunne, Philadelphia, read a paper on "Antenatal Hemorrhage" which constituted a statistical study of results in abruptio placentæ and placenta previa at the Philadelphia Lying-In Hospital from July 1, 1929, to July 1, 1933. He stressed the fact that antenatal hemorrhage is one of the most important complications of pregnancy, that in many instances mild hemorrhage is looked upon too casually by the physician with the hope that it will not recur and cause serious trouble. Hence, the physician too frequently does not make an effort to determine its origin.

In the early months of pregnancy, the most frequent causes of hemorrhage are abortion, ectopic pregnancy, hydatidiform mole, malignancy, cervical polypus, and cervical erosion; the most frequent of these causes is abortion.

Hemorrhage in the later months of pregnancy as a rule is due to accidental or abruptio placentæ and unavoidable or placenta previa. The various aspects of these cases were detailed.

The treatment of abruptio placentæ depends upon the general condition of the patient, whether or not the patient is in labor and on the degree of cervical dilatation. If the cervix is closed, cesarean section is the procedure of choice regardless of the condition of the child. If the patient is in labor, a great deal depends on the degree of cervical dilatation and the amount of bleeding. In mild cases it is usually safe to allow labor to proceed under careful observation. If any indication for rapid delivery arises, the patient can be delivered with forceps or by version and extraction. If necessary, cesarean section may be the safer procedure. Blood transfusion often is necessary.

Concerning the treatment of placenta previa, it was stressed that no case of suspected pregnancy should be examined vaginally until the physician is ready to proceed with delivery, either by the vaginal route, or by cesarean section. Cesarean section is indicated in central placenta previa or in any case of placenta previa in which the hemorrhage is profuse and the cervix only partially dilated.

Version and extraction should be reserved for marginal and lateral types when the cervix is fully dilated. The use of bags should be avoided because of the increased danger of infection and the danger of obscuring a profuse intra-uterine hemorrhage. Blood transfusion is essential.

MONTOUR

Nov. 17, 1933

The meeting was held at the Danville State Hospital, with J. Allen Jackson presiding. The evening was devoted to a discussion of paresis and presentation of cases illustrating the various stages. Dr. Jackson described the older forms of treatment with arsenic, mercury, and bismuth and brought out the fact that before the advent of malarial therapy most paretics died within 5 years of the onset of symptoms.

Edward B. Shellenberger presented several patients illustrating the excellent results of malarial therapy. As an illustration, one man, age 40, previous to treat-

ment had marked delusions of grandeur, parietic gold curve, strongly positive blood and spinal Wassermann reactions. He is now mentally clear, has no grandiose ideas and does not recall his previous delusions. The blood and spinal Wassermann reactions are negative, but he still has the parietic type of gold curve.

It was brought out that as a result of malarial treatment, improvement occurs first at the intellectual level, then the social level, and then the serologic level. The parietic type of gold curve is the last abnormal finding to disappear.

Charles R. Yhost presented several patients undergoing treatment who still had some of their delusions. Some had delusions of persecution, others were emotionally elated. One of the patients volunteered the fact that she felt much better following the chills.

Robert R. Hays described treatment. He pointed out that the symptoms are probably due to reaction on the part of the body to the presence of spirochetes, therefore, treatment to be effective should remove cell collections as well as kill spirochetes. Bismuth, mercury, and iodide are apparently helpful by tending to remove the products of spirochetal activity. Arsenic is the best spirocheticide. Arsenic should not be used before malarial inoculations because it tends to prevent the development of malaria. Mercury and iodide are administered by mouth and bismuth is used intramuscularly. The length of treatment depends on the reaction of the patient. Bismuth salicylate is usually given in courses of 14 doses. Neosphenamine is given at weekly intervals. If the physical condition of the patient is too poor to permit the use of malarial therapy the prognosis is not good.

Horace V. Pike described the details of malarial therapy. The inoculation is accomplished by giving 10 c. c. of blood from a patient who has paresis and malaria to a patient who has only paresis, by intramuscular injection. Usually a lapse of 2 or 3 weeks occurs before chills begin. If, as a result of malarial chills, the patient becomes jaundiced or dangerously ill the malarial infection is terminated by quinine, grains 20 t. i. d., until blood smears are repeatedly negative for parasites.

During the past 6 years, 162 patients were treated with malaria. Of these 69 were sent home as cured. Cured means complete recovery from mental symptoms, but not necessarily permanent recovery from neurosyphilis. Paresis is defined as neurosyphilis with a psychosis. After mental improvement the neurologic signs may persist because they represent damage done to the nervous system. Cases are finally discharged only after they have been observed for a year at home and have been able to make complete adjustment to their surroundings. Dr. Pike said there have been no fatalities through the use of malarial therapy.

The evening's program showed clearly the excellent work that is being done at Danville State Hospital in the treatment of this heretofore hopeless disease. Dr. Pike's statistics for the entire group of patients with paresis are as follows: 17 per cent recovered; 24 per cent improved and are living at home; 3 per cent unimproved, but living at home; 19 per cent died during treatment; and 32 per cent are still in the hospital under treatment. The excellent follow-up system at the Danville State Hospital makes possible an accurate report of the end results of treatment.

Dec. 15

The meeting was held at the Geisinger Hospital, Danville. Roy E. Nicodemus, the retiring president, pre-

sided. He described "Management of the Posterior Occipital Position During Labor." This presentation of the head has long been regarded as a serious complication of labor, but it need not be so if the diagnosis is made early, and the position corrected before the head becomes tightly wedged in the pelvis. If the correct diagnosis is made early by means of forceps the occiput can be rotated to an anterior position without difficulty, provided an anesthetic is used.

The following officers were elected for 1934: Lester P. Fowle, president; Harry C. Brown, first vice-president; Francis W. Davison, second vice-president; Sydney J. Hawley, secretary; Edward B. Shellenberger, treasurer; Henry F. Hunt, reporter; and censors, Carl E. Ervin (1 yr.), Cameron E. Shultz (2 yrs.), J. Allen Jackson (3 yrs.).

Jan. 19, 1934

The meeting was held at the State Hospital, Danville.

The Committee on Medical Relief reported the rescinding of the order requiring 6 prenatal visits in obstetric cases until March 1, 1934. Also that county and poor physicians are now eligible to receive payments under the relief administration; will pay for hospitalization in necessary cases for those working under the C. W. A.

A symposium on suppurative diseases of the lungs was presented. "Roentgen-ray Findings in Lung Suppuration," by Sydney J. Hawley. He showed a number of roentgenograms indicating the gross morbid anatomy of various types of suppuration of the lungs, pointing out the value of roentgen ray in establishing the diagnosis and in indicating the extent and type of pathologic change present. The value and added information to be obtained by the instillation of lipiodol into the bronchial tree was demonstrated. This particular procedure is especially valuable in patients with bronchiectasis, because it frequently occurs behind the heart or diaphragm, and will not be visualized without the opaque medium being instilled. The value of roentgen ray in checking the progress of healing and in determining the success and rate of absorption of pneumothorax was detailed.

"Lung Suppuration from the Point of View of the Bronchoscopist," by Francis W. Davison. He stated that foreign bodies of long standing produce suppurative processes in the lungs. He also recommended that lipiodol be instilled to determine the presence and extent of bronchiectasis. The instillation is readily done; the throat and larynx are first anesthetized by spraying with cocaine, a small rubber catheter is then inserted between the vocal cords and pushed gently down the trachea. Under fluoroscopic control the catheter is run into whatever main bronchus is desired, and the oil is then injected down the catheter. By placing the patient in various positions it can be made to run into any desired bronchus, even the upper lobes. Bronchiectasis does not occur in normal bronchi, as a result of excessive coughing. It is always preceded by an inflammatory process in the lung tissue which injures the bronchial walls. Then the difference between the pressure of air which is normally present in the bronchi and the negative pressure in the pleural cavity causes the dilatation. Spontaneous healing does not occur, but rather the condition always tends to progress, as the dilated bronchi are areas of poor drainage, consequently the inflammatory process persists and even extends. In mild cases, postural drainage and general medical care may reduce the infection enough so the condition is relatively little annoying to the patient. In severe cases

some form of artificial collapse, most often phrenicectomy is necessary. It may be severe enough to require thoracoplasty.

In discussion, Carl E. Ervin stressed the value of team work between the internist, bronchoscopist and roentgenologist in making the diagnosis and deciding on the best type of treatment. In empyema he advised against hasty surgery.

Under the auspices of the Montour County Medical Society the Third Monthly Postgraduate Assembly was held at the Geisinger Memorial Hospital, Jan. 26. Percy S. Pelouze, associate professor of urology at the University of Pennsylvania, spoke on the "Treatment of Gonorrhea in the Male." Thomas C. Stellwagen, professor of urology, Jefferson Medical College, and Theodore R. Fetter, discussed "Stone in the Kidney." Hugh H. Young, professor of urology, Johns Hopkins Hospital, discussed "Some Problems in Urology of Interest to the General Practitioner."

Feb. 16

The meeting was held at the Geisinger Memorial Hospital, Danville, with Francis W. Davison, the second vice-president, presiding.

This being intern night, the scientific program was presented by the interns of the Geisinger Hospital.

J. V. D. Quereau read a paper on "Liver Function Tests." Four tests, the bromsulphalein, the icterus index, serum bilirubin, and galactose tolerance were compared in order to determine which were most effective in various pathologic conditions of the liver. Many readings were taken from the literature, an average was found and expressed as per cent rise above the normal. In this way all tests could be placed upon a comparable basis. In all cases of jaundice the icterus index showed the greatest change and was therefore most useful; the serum bilirubin was second, but readings varied greatly from day to day in the same patient and it was considered less reliable in following the progress of a case. The dye test was the most efficient in all cases of hepatic carcinoma and in hypertrophic cirrhosis; in these the average icterus index was within normal limits. The average serum bilirubin was normal in all cases showing no jaundice while the icterus index was to be chosen for chronic cholecystitis without stone and in pernicious anemia. Myocardial deficiency without jaundice resulted in higher average readings for the icterus index and dye tests than did any other condition of the liver without jaundice. The galactose tolerance test gave its highest readings in toxic, catarrhal, and infectious jaundice and was normal in purely obstructive jaundice; it is useful only in distinguishing between these 2 groups. An intravenous galactose tolerance test developed in this hospital was applied in cases of obstructive jaundice, atrophic portal cirrhosis and chronic cholecystitis with cholelithiasis, and was the most efficient in the latter two. The test showed its highest readings in obstructive jaundice. It measures the ability of the liver to reduce the blood sugar following an intravenous injection of galactose and is a test for carbohydrate function.

W. I. Buchert presented "A Case of Hydatidiform Mole." In this condition also known as vesicular mole, cystic degeneration of the chorion, or myxoma chorii, the terminal extremities of the chorionic villi are converted into transparent vesicles, with clear viscid contents. These vary greatly in size from that of a pinhead to that of a hazelnut, and hang in clusters, giving to the external surface of the chorion a grapelike appearance. Ordinarily all traces of a fetus and amnion have

disappeared, and a loose mass of thick decidua and cheesy cellular material, with blood clots interspersed between these bladderlike bodies is delivered. The actual exciting cause of the degeneration is unknown, but probably several exist. It is more common in multipara than primipara, and usually comes on early in pregnancy.

The clinical history is very characteristic. Briefly, the occurrence of painless bleeding in early pregnancy, associated with a uterus which is disproportionately large for the supposed stage of pregnancy is the usual picture. Rapid growth of the uterus, atypical uterine hemorrhage, absence of fetal heart sounds, a soft elastic not doughy feel of the uterus, and the general evidence of malaise should lead one strongly to suspect this condition. If the pregnancy hormone test with diluted urine is positive, the diagnosis is almost certain. There is an immediate mortality in about 10 per cent of the cases, and between 3 and 12 per cent of all the cases develop into a subsequent chorio-epithelioma. The uterus should be completely emptied as soon as a positive diagnosis is made. Owing to the possible subsequent developments of a chorio-epithelioma, every patient should be carefully watched for a period of at least a year, and if any signs of a chorio-epithelioma make their appearance, a panhysterectomy should be performed.

H. R. Yandell read a paper entitled, "The Diagnosis and Treatment of Acidosis and Alkalosis." The reaction of the blood as well as its composition and volume must be regulated within narrow limits for the proper function of each cell of the body. Neither acidosis nor alkalosis may be considered single entities since they are mere symptoms of an underlying cause. One of the chief aids in diagnosis of acidosis and alkalosis is the familiarity with the diseases in which these two conditions are apt to manifest themselves. The principal conditions in which acidosis may be present are diabetes; starvation; nephritis; dehydration; diarrhea; acute infections and toxemias; violent muscular exertion; thyrotoxicosis; poisoning by morphine, methyl alcohol, and carbon monoxides; after overdoses of ammonium chloride, calcium chloride, and salicylates; in hemorrhage and shock; and following anesthesia. Alkalosis occurs in hyperpnea from any cause in anoxemia caused by high altitudes and cardiac failure, with overdoses of alkali, in pyloric obstruction, high intestinal obstruction, persistent vomiting, and in tetany. The clinical diagnosis is often difficult and the symptoms are hard to differentiate from the underlying pathology. Hyperpnea, or dyspnea without cyanosis, is the most characteristic sign of acidosis. The only safe method of diagnosis is by laboratory methods which consist of chemical analysis of the blood, urine, and alveolar air. Determination of the plasma bicarbonate or the carbon dioxide combining power after the method of van Slyke is probably the most reliable and accurate method. The usual methods of testing for acetone bodies in the urine, the determination of urinary ammonia, and the Sellard test or alkali tolerance are the other commonly used practical tests.

The best treatment of acidosis is prevention, especially in diabetes. A high carbohydrate diet, orange juice, tomato juice, and adequate fluid intake tend to prevent acidosis. General measures of treatment include fluids freely by mouth and normal saline by vein and hypodermoclysis. Glucose should be given by vein if the carbohydrate intake is inadequate. Insulin given with glucose makes it rapidly available and prevents loss of renal excretion. Glucose therapy is more important than alkali therapy which may be used in tiding patients over critical periods, intravenously if necessary. Mor-

phine is contraindicated in impending acidosis. The most important factor in treatment is the diagnosis and treatment of the underlying condition, and this is also true in alkalosis. Alkalosis is also treated by the administration of sodium chloride solution and glucose. Dilute hydrochloric acid may be given by mouth and ammonium chloride and calcium chloride by vein. Inhalation of carbon dioxide and oxygen is useful in cases of alkalosis caused by perventilation. C. E. Phillips presented "General Considerations of Gastro-intestinal Neuroses." Gastro-intestinal neuroses are those functional disturbances of the gastro-intestinal tract manifesting symptoms of a nervous character and not based on any anatomic pathologic changes. Gastro-intestinal neuroses may be primary or secondary; primary if the seat of the nervous disorder is inherent in the stomach or intestine itself; secondary if the nervous mechanism of the stomach or intestine is reflexly affected. Approximately 55 per cent of all gastric disturbances can be classified as neuroses; about 45 per cent represent organic diseases. They are more common in females. The symptoms are usually those of a general neurosis, *i. e.*, irritability, lassitude, insomnia, depression, and a feeling of malaise. Hyperesthesia or anesthesia often exist in certain parts of the body. Subjective symptoms are changeable and capricious. The digestive complaint is frequently independent of the quantity and quality of food ingested, and frequently bears no relation whatever to meals. Before making a diagnosis of gastric neuroses organic disease should be definitely ruled out. HENRY F. HUNT, *Reporter*.

PHILADELPHIA

Feb. 14, 1934

MEDICAL DENTAL NIGHT

"Current Trends in Oral Focal Infection." Edward H. Hatton, professor of pathology and bacteriology, Northwestern University Dental College, Chicago, Ill., based the subject upon the acceptance of the existence of 3 general varieties of mouth diseases as to etiology: Those beginning in and limited to the mouth; those primary in the mouth but extending to other parts; and those oral manifestations of systemic diseases. In connection with the latter a passing reference was made to the oral manifestations of scurvy, rickets, agranulocytic angina, and diabetes. Among the primary mouth diseases were mentioned dental caries and pyorrhea because of their relation to focal infection and human bacteriology. The resistance of the human organism to the bacteria is not sufficiently appreciated. The soil should be studied as well as the seed. The solution of the problem of dental caries will influence the elimination of focal infection as it concerns the teeth. The bacteriology of pulpless teeth reflects the identification of the kind of bacteria, but not their virulence in connection with that particular individual human being. He urged direct attention to the behavior of the host. Quoting Hadley, one of the more modern bacteriologists, toward whose theories the essayist leans, bacteria instead of being organisms with very specific and firmly fixed characteristics are to be considered as organisms whose reactions and behavior are given to variations, dependent perhaps on environment or phases in their life cycle and, therefore, characterized by sudden changes in form and behavior. Another point stressed in connection with bacteria was that they retain the physical properties associated with other organic and inorganic substance.

References were made to the reaction of bacteria to electric discharges. These though somewhat involved were mentioned for the purpose of showing a certain degree of similarity between the experiments confirming these electric phenomena and those on elective localization. Agglutinability incidental to electric charge may determine the elective localization of bacteria. Such elective localization is a result of the diseased condition, not the cause. Infected vital pulps as primary foci were described and analyzed, and well illustrated by slides. One gathers from this paper that the condition of the patient that provided first the dental caries, and consequently all other dental conditions, prepares the soil for the ultimate growth of bacteria that thrive best in places where the resistance is least, and that pulpless teeth conform admirably to such specifications.

In discussion, E. J. G. Beardsley, clinical professor of medicine, Jefferson Medical College, stated that the dentist and physician had a common interest in rendering the greatest amount of service in the safest and best way to the patient. Reference was made to the pioneers in medicine who looked upon the teeth with suspicion when certain general symptoms were experienced, and the derogatory comment to which their radical views subjected them. The futility of much we are attempting to obtain by medication, may be confirmed by more frequent recourse to the necropsy room. In any case in which dental focal infection might be regarded as a possibility, it is essential that this factor be eliminated by a specialist in that field, the dentist. Reference was made to the value of the doctor as a proponent of such propaganda if he has had a trying personal experience, which has responded to treatment only after the removal of an offending tooth. Thomas Cook, assistant professor of oral diagnosis, University of Pennsylvania School of Dentistry, in answer to the possible contention that it is impossible to obtain pure cultures of bacteria from the teeth, showed that this was a rather commonplace accomplishment among the dental bacteriologists. The reduction in the vitality of pulpless teeth is a factor in their infection, especially since the chronic cases were mentioned as particularly troublesome. The effect of the winter season on the causation of an increase in acute painful teeth conditions was given as an illustration of the effect on the diminution in human resistance. The desirability of examining adjacent structures when teeth are submitted to the bacteriologist and pathologist was also remarked. Myer Solis-Cohen agreed at large with Dr. Hatton that too much attention is paid to the behavior of the bacteria and too little to the diseased condition or the reaction of the body. Regarding the bacteria found in connection with dental focal infection, what we desire to know is not are certain germs present in pure culture, or are they pathogenic for a guinea pig or a rabbit, or some human, but are they pathogenic for the patient under consideration. The recognition of the possibility of disease carriers such as typhoid carriers possessing a resistance to the disease of which they are the intermediate host was mentioned. The susceptibility of the isolated microorganisms is determined by bringing them in contact with the patient's blood. If they are killed by this exposure the patient's blood is assumed to be bactericidal for that organism; if they survive and multiply, the lack of the bactericidal property of the blood for these particular organisms, is indicative of unusual susceptibility on the part of the patient. Treatment is guided accordingly. The pulpless teeth become infected secondarily by reason of their lessened resistance—the same as any other area of lessened resistance. Another valuable point, confirmed by his own observa-

tions, is that infection of the nasopharynx and tonsils is the real primary focus and that the teeth obtain their infection from this region. Having determined by his own methods, the offending bacteria, he combats their activities by use of vaccines.

Feb. 28

A symposium on "Gonorrhea in the Male" was presented, the paper read by Edward L. Keyes, of New York City. The outstanding features were emphasized by texts on lantern slides. These were originally prepared as a part of the Scientific Exhibit of the American Medical Association.

Diagnosis of acute gonorrhea in the male: The first gonorrhea is always a vicious infection; subsequent attacks may be mild; nongonococcal urethritis may begin as acutely as gonorrhea; nongonococcal urethritis is often far more persistent than gonorrhea; urethral chancre causes a discharge of pus; even at the onset, smears merely strengthen an impression as to the presence or absence of gonococci. They prove nothing absolutely; smears are useful chiefly to mark the progress of the disease from day to day; if no gram-negative intracellular diplococci are found in the smear, they may still be in the urethra or prostate; if gram-negative intracellular diplococci are found, they may be staphylococci or other bacteria.

Treatment of acute gonorrhea in the male: Any local treatment that causes pain is harmful; do not conceal pain by local anesthesia; when symptoms do not promptly subside under local treatment this should be discontinued; the character of the injection used is of far less moment than the intelligence with which it is used, the man behind the gun is more important than the solution in it; when the inflammation has reached its height, local treatment will only make it worse; if one local treatment fails, do not shift, all other treatments will also fail; cultures are the final test; the best place to cultivate the gonococcus is in the patient's own urethra; this can only be done when the infection is chronic; acute posterior urethritis is acute prostatitis. It is the source of many grave lesions in the prostate itself, and is a port of entry for systemic gonorrhea; local treatment may excite abscess.

Treatment of the declining stage of acute gonorrhea: In the declining stage of an acute gonorrhea, the patient's physician has a unique opportunity for doing him harm; intemperate instrumentation causes more chronic gonorrhea than the gonococcus itself; do not introduce any instrument into the urethra except a soft rubber catheter; our great-grandfathers got well without local treatment; try all the new systemic remedies for gonorrhea, you will be surprised at their efficacy; anti-septics are useful only to control the mildest infections; the older the infection, the more benefit will be obtained from the astringents (zinc, permanganate, silver); gonorrhea becomes chronic when acutely inflamed glands instead of healing, remain poorly drained because of infiltration of orifices.

Treatment of epididymitis: The patient must rest; the sore epididymis requires immobilization against the wall of the abdomen, just as a sore joint requires immobilization. The adhesive plaster bridge across the thigh does not immobilize; local applications to the scrotum are of little value; ice numbs the pain; if immobilization fails to relieve symptoms, operate.

Diagnosis of the presence of gonococci in chronic gonorrhea: The smear is fallacious; the complement-fixation test is fallacious unless there is considerable infection (prostate, vesicle, joint); a positive culture

is the only positive proof of the presence of gonococci; the place to cultivate the gonococcus is in the patient's own urethra; the gentle passage of a sound cracks infiltrated spots containing gonococci. These set up a recognizable gonorrheal urethritis. This is controllable, thanks to established local immunity and to immediate antiseptics; rough instrumentation will do this, but it will be uncontrollable; the patient will draw his own conclusion as to the intelligence of the physician who attempts to diagnose the presence of gonococci when the clinical course of the infection points plainly to their presence. When the gonococci have gone, the infection settles down to a mild catarrh interrupted, if at all, only by sexual upheavals in prostate and vesicles; the formula, "complement fixation diagnoses prostate and vesicles, sounds diagnose anterior urethra," is fairly safe.

Diagnosis of the urethral lesion in chronic gonorrhea: The purulent discharge signifies a lesion on the surface of the urethra; a prostate full of pus is a silent pool unless its surface is ruffled; you cannot see pus in the prostatic secretion without a microscope; you cannot obtain adequate evidence of prostatitis and vesiculitis without massage; lesions in the anterior urethra are infiltrations; they are detected by the bulbous bougie; almost all mild morning drops are due to anterior urethritis; you may need a 28 F. bulb to detect the infiltrate; cut the meatus quickly; the urethroscope shows lesions of anterior urethra but rarely helps treat them; the urethroscope shows lesions in the posterior urethra and is often necessary to treat them.

Treatment of chronic gonorrheal urethritis in the male. They did so well in the army because: Their sexual hygiene was good; their general hygiene was good; the doctors had no time to poke them very much.

Before beginning to treat chronic gonorrhea consider what to expect: The gonococci will disappear of themselves in a year; a prostate showing pus in its discharge will probably show pus forever after. The prostatic prognosis depends more upon sexual hygiene than upon massage; the seminal vesicles behave like the prostate; infiltrations of the anterior urethra will disappear under gentle dilatation unless they contain real scar.

The gonococcus is often best driven out by patience and hygiene. The local attack upon the gonococcus must reach beyond the surface of the mucous membrane. Massage reaches beneath the surface. The sound is used to massage the anterior urethra. Not one man in five has gentle enough hands to use the sound profitably. If your patient gets an epididymitis, you have yourself to blame. The art of passing sounds is to prevent trauma. Pressure and haste are dangerous.

Treatment of gonorrheal stricture: The instrumentation that makes a stricture bleed, adds to its scar; recent strictures can be dilated; ancient strictures of the bulb can be dilated; ancient strictures of the penile urethra cannot be dilated; only that portion of the obstruction which has edema and cellular exudate can be absorbed. Only gentle dilatation-massage can do this; the scar is forever; the scar in the bulb is habitually so wide as not to require cutting; the scar in the penile urethra habitually requires cutting; three months after urethrotomy of penile urethra the stricture should be fully dilated and healed and a bulbous bougie should not detect recontraction a year thereafter; the Negro does not do so well; stricture in the bulb requires dilatation forever; strictures are avoidable. Stricture is scar.

In discussion, Joseph C. Birdsall emphasized the

points brought out by Dr. Keyes, by means of a very elaborate lantern slide exhibition, which was further amplified by a motion picture film, prepared a few years ago by the Pennsylvania Department of Health. Percy S. Pelouze's discussion showed that there had been a number of surveys made; United States Public Health Surveys; dangers of drug store treatment, and other improper therapy; proper diagnosis not made; proper treatment seldom given; no control of patient; the public health aspect and reason why gonorrhea patients should be in the hands of interested physicians. The outstanding facts shown were that: Forty-two per cent of patients were treated at drug stores; 21 per cent treated by physicians; 16 per cent treated at clinics; 4 per cent treated at home; 14 per cent did not know what to do.

WARREN

Feb. 19, 1934

Thirty-two members attended the meeting at Warren which was devoted to medical economics. James R. Durham, chairman for the program, spoke of the need for greater attention to medical economics. The income of the physician was being lessened by inroads of the hospital and welfare groups. The physician once derived a fair amount of money from anesthesia; now it is given mostly by a nurse. There could be more co-operation in having one person or agency attend to the bookkeeping and collection of accounts. Christian J. Frantz, who represented the doctor of 40 years ago, believed there was much more co-operation today than when he first began to practice. We are better organized, less prone to mean and unfair competition. Our problems are those of the business man in general. People in former times raised large families and could pay the doctor on small wages; today they afford an auto but cannot afford to pay the physician and yet we must not think old days were best.

Alden B. MacDonald, taking the specialist's standpoint, believed that in this depression, the specialist suffered even more than the general practitioner, but he felt inclined to think the trouble was of deeper origin, that ever since the World War, there exists a laxity in honesty, a tendency to want things for nothing, to expect the physician to serve the people and even perjure himself for them, as in compensation cases, as a matter of course.

William M. Cashman detailed the report of the Committee on the Costs of Medical Care, and the criticism of the same by the minority members, and others.

He thinks socialization of medicine would bring about deterioration of medical art as it has in other countries; it would induce malingering and dishonesty among the people; it would make a machine of the physician even though it gave the average physician a regular income and, therefore, greater security. He quoted statistics about hospitals showing many were controlled by the local, State, and national governments. He also cited the dispensary abuse and that in the cities interns were caring for patients who should be attended by private practitioners. He showed that 75 per cent of the diseases for which the people are treated could be handled by the general practitioner. There was an animated discussion which centered about the opinion that there was too much government interference with the practice of medicine, and that so-called welfare agencies were taking upon themselves medical duties and robbing the practitioner of his right-

ful practice. The model by-laws were recommended for adoption. Dinner was furnished by Drs. Krugh, Larsen, MacDonald, and Mervine.

MICHAEL V. BALL, *Reporter.*

WASHINGTON

Feb. 19, 1934

The meeting was in the form of a dinner at the George Washington Hotel, Washington. President William J. L. McCullough presided. R. Wesley Scott, of Cleveland, Ohio, presented the subject of "Modern Aspects of Heart Disease from the Practitioner's Point of View." His conclusions were drawn from 5000 necropsied cases and almost as many clinical cases. It was found that correct diagnosis, agreeing with the necropsy findings, was made in only 40 per cent of the cases; in 10 per cent of the cases there were errors in the main diagnosis, that might have had a bearing on the therapeutic procedures followed; for example, pneumonia in a patient with a cardiac lesion.

Under age 30 the acquired heart lesions are mostly due to rheumatoid infection. Diphtheria ranks next. In Dr. Scott's experience no case of heart block ever recovered, although the patient may live as long as 1 or 2 weeks. If a patient survives one month with some other heart involvement following diphtheria, he will recover.

In the rheumatic infections manifested by migratory arthritis, skin nodules, and chorea, more serious heart involvement is found in children than in adults. The cardiac condition in this disease should assume the most preëminent place in the management of the case, and the joint involvement considered insignificant in comparison. The main mistake in the handling of these cases is that they are discharged too soon as being well. From age 8 to 16 is the dangerous period in which 75 to 80 per cent develop cardiac involvement. Mild cases may severely ravage the heart. Rheumatoid arthritis is protein in its manifestation, recurring in the same interval at the same seasons, which should be taken into consideration in the management.

The best therapeutic measure that can be employed and which is the most important is long rest in bed and enforced long period of invalidism. One to 1½ years in bed is the period productive of best results. Salicylates do no good for the heart itself; they only relieve joint symptoms and inflammations. There is no medical therapeutic measure that can be given specifically for the heart. Digitalis is indicated if there is purplization. Keep the patient in bed until the heart rate is reduced to as nearly normal as possible for that particular heart. One or 2 years out of the life of a child is insignificant as compared with the later value derived around the ages of 30 or 35, when invalidism interferes more with the plans of life. Proper diet, increasing the nutritional body strength, correcting anemia, and giving the necessary vitamins are essential, also the use of ultraviolet rays.

Since the ravages of heart disease in the present century is twice that of carcinoma, and is the leading cause of death, it is very important that the problem be considered seriously, and if such management early in life will prevent trouble in adult life, the time "wasted" in bed is insignificant when compared with the importance in later life.

Beyond age 30 the most prominent infection is syphilis. Dr. Scott does not find the gummas of the myocardium as described by other investigators, and although there may be some inflammatory infiltration

present, he has never recovered the spirochetal organism. If an aneurysmal dilatation of the aorta is found, there is no syphilitic involvement of the heart itself. Latent syphilis is an important cause of heart disease after age 30. The reason why there is so much hindrance to the heart is that in this process there is an involvement of the coronary mouths, thereby producing a strangle hold on the heart nourishment. Latent syphilis, the most important cause of heart disease after age 30 may be clinically silent up to age 48. Occasionally a case is encountered up in the 60's and 70's. If aortic insufficiency is encountered later on in life without any previous history of infection, prince or peasant, syphilis is to be considered the cause. Aortic arteriosclerosis is no cause for aortic insufficiency. Stenosis may occur, cause rigid valves, producing a double sound. Ten per cent of these cases have negative Wassermann reactions. Once there is evidence of failure in the syphilitic heart, it is the beginning of the end. If any hope is entertained to stop the process, the treatment along specific lines should be instituted before heart failure is manifested. Slight diastolic murmurs over the aortic valves should not be passed up, for it is indicative of syphilitic involvement and treatment started may do some good.

Cases of subacute bacterial endocarditis have had rheumatism in the vast majority of cases. The symptoms are usually fever, weakness over a variable length of time, and is due to a streptococcus viridans involving the endocardium. Those that develop stenosis may live a long time.

Another group of vascular changes come on after age 45. The cause of arteriosclerosis is unknown.

An individual may have thickened arteries of the larger type and yet have a fairly normal blood pressure. Necropsies of cases of hypertension show that 65 per cent die of heart failure; 20 per cent of cerebral accidents, either hemorrhagic or traumatic. It is very often difficult to make an accurate diagnosis distinguishing between cerebral hemorrhage and cerebral thrombosis.

Because of the widespread use of the blood pressure apparatus, high blood pressure is a common expression and diagnosis, and creates a lot of fear in the mind of the patient. The height of elevation of the blood pressure is no indication for interference. It is only if there is apparent loss of physical strength or if there is symptomatic manifestation that methods should be directed toward the care of the patient in a general way, rather than against hypertension. As an example in the management of a case, a man age 45 at an examination following application for insurance is found to have a blood pressure of 165/110. This is brought to the attention of the individual who becomes excited, moody, and prostrated. Very often it disorganizes his life. It must be considered that one blood pressure reading is not sufficient; that individuals under excitement or stress can have an elevated blood pressure. The reading should be estimated under various circumstances, not advising such a patient as to diet.

Advice against red meat and "no eggs" is foolish. If the individual is overweight there should be some restriction in diet. If the man has a habit of drinking alcoholics, they should not be cut out entirely. If he is a heavy smoker, this habit should not be cut out entirely, but restricted to a comfortable amount. Activities as to exercise and the amount of business or work done should be regulated so as not to overstep the boundaries of endurance. If it is the type of individual who has been burning the candle at both ends, naturally

stricter advice should be given. Try to regulate the activity in a sensible manner, doing away with as much worry as possible. When an estimate as to how the individual has stood up to the ravages of his life is to be made, several things have to be taken into consideration: The size of the left ventricle, and if it is not enlarged to percussion or to roentgen rays taken in the two dimensions, it is a good sign. The less palpable blood vessels then have to be considered, for instance the retinal arteries, which is the best means of arriving at a conclusion as to the extent of the ravages of hypertension, and is much better than the blood pressure apparatus. In the management of a case in which there is manifestation of hypertrophy and thickening of the nonpalpable vessels, treatment should be started with nerve sedatives and a vacation; after such a rest test again for the effect on the vascular decay, then advise the patient in any circumstance to live sensibly, avoid excess, correct overweight. There is no specific medicine for hypertension.

In estimating the involvement of the coronary vessels of the heart as evidenced by mild angina pectoris, electrocardiograms are used. In estimating the involvement of the brain circulation, transitory aphasiae are gone into, investigate whether the mind is alert, whether there is dizziness, whether the memory is good.

As to the investigation of kidney involvement, repeated specific gravity tests are as valuable as any blood chemistry. A little albumin means nothing. A specific gravity of 1.020 to 1.025 shows good kidneys in hypertension. So, as a summary into the condition of the arterioles and capillaries in hypertension, the circulation in the brain, the heart, and the kidneys should be considered in estimating the amount of involvement.

Following the lecture, slides were shown of gross specimens of heart and kidney. When sudden death occurs it is not due to the so-called "indigestion" but to coronary thrombosis. A cerebral hemorrhage or thrombosis patient does not die suddenly. It lasts for a few hours to several days.

SAMUEL A. REUBEN, *Reporter.*

WESTMORELAND

Jan. 11, 1934

The meeting was held in the American Legion Home, Greensburg, 31 present. D. T. Lamon, the retiring president, gave personal observations on the work of the State Society. Oscar B. Snyder, of Greensburg, the incoming president, was installed. He announced the appointment of Stephen W. Nealon as chairman of the Committee on Investigation of County Tuberculosis and Contagious Disease Hospital Establishment. Louis J. C. Bailey is chairman of the Child Welfare Committee.

President Snyder addressed the meeting on "Looking Ahead." Gervaise F. Nealon read a paper on "Anal Cryptitis and Papillitis." B. F. Royer spoke about the child welfare project dealing with physical check-up of the children of emergency relief families within the county.

Feb. 8

The meeting was held in Greensburg. Oscar B. Snyder presided; 50 members were present. The meeting was devoted primarily to cardiopathies. James P. Strickler discussed "Angina Pectoris and Coronary Disease." A motion picture film prepared by Dr. Hurxthal of the Lahey Clinic was shown. It detailed electrocardi-

ographic tracings of the rhythmic and arrhythmic heart. This graphically paved the way for discussion of "The Electrocardiogram," by Nathan A. Kopelman who stated that from the cardiologist's standpoint the myocardium is the most important structure; the conduction mechanism the second in importance; and the valves of least import. Electrocardiographers are too modest about their instrument of precision. Among the benefits to be derived from such study are: Accurate diagnosis of clinically confusing arrhythmia; differentiation of degenerative from toxic heart lesions, thereby making for more precise prognosis; diagnosis of coronary occlusion; and providing a control in cardiorrhaphy.

March 8

The meeting was held at Greensburg, with 36 present; Oscar B. Snyder presided.

Grover C. Weil and Jack Henry of the Mercy Hospital, Pittsburgh, gave an address on "Diagnosis and Treatment of Fractured Pelvis," the main topic of the evening.

Dr. Weil mentioned that Scudder in his book just a decade past had little of comment on treatment of pelvic fractures. Anatomic sketches were presented to demonstrate the twofold purpose of the pelvis—namely, support of body trunk and provision for locomotion. Out of Dr. Weil's series of several hundred cases of fractured pelvis, never has a fracture through the sacro-iliac joint been noted. Roentgen study of a child with waddling gait, everted feet and abducted thighs showed congenital absence of the sacrum.

The pelvic bones lie in a vascular environment and in consequence, fractures of this area should unite when properly aligned. Stress was placed upon maintaining "good line" in reducing pelvic fractures, as shortening of lower extremities may ensue with attendant lumbar myalgia from compensatory scoliosis.

In diagnosis, press with the palms of the hands over the crests of the ilia. A sense of "give" is imparted to the palpating hands if fracture exists. Crepitus is demonstrable in the majority of cases. With simple pelvic fracture, the patient may walk about. With solution of bone continuity, it may not be possible for the injured to lift the lower extremity. If the inferior pubic ramus is fractured, adductor muscles of corresponding side will be spastic and pain complained of in the groin of the same side as injury. Patient may have pain over the bladder, slight distention, or possibly intercostal breathing. The appearance of hemorrhage or tissue boggyiness may reveal clinically the point of vesical rupture.

When first seen, the degree of shock must be ascertained and treated at once. Complications must be looked for—especially rupture of the urethra. If the latter complication exists, shock and sepsis are to be coped with. In passing a catheter, insist on a sterile technic. Cleanse the penis with soap, water, alcohol, and weak iodine solution. Use sterile gloves. If no obstruction interferes, let the catheter indwell for 2 to 3 weeks until the urethra has restored itself. If an obstruction is met, retrograde catheterization is the only alternative left.

Before operation relieve the shock. Then proceed to the retrograde operation as soon as possible to avoid a chemical cellulitis and phlegmonous infection from extravasated urine. Care is taken in the choice of anesthetic. Scrupulous attention is given to preparation of the operative field—soap and water, ether and iodine being used in turn from costal margins downward, around genitalia, and upward above rectal region.

As for the retrograde operation itself, a suprapubic midline incision is made. After careful identification of bladder, this organ is incised high up so as to avoid urinary dribbling when the patient becomes ambulant. Sounds are introduced through the external urinary meatus as well as the internal, the perineum is incised, the tips of the sounds are joined by means of rubber tubing (French 22 caliber), the sounds are then removed, and thus a mechanical channel is created around which endothelial cells may regenerate urethral continuity. To reduce the possibility of chemical cellulitis from urinary extravasation, a drainage tube is inserted in the prevesical space and left in situ for 3 or 4 days. A mushroom catheter is left to dwell in the bladder before closure. In 2½ to 3 weeks, the integrity of the urethra is restored.

As for the fracture treatment, the patient is confined to a bed with a fracture board. The buttocks rest in a lamb's wool-lined hammock which compresses the ilia. The hammock has a spreader lying anterior to the pubis which prevents crowding the patient. A Buck's extension is applied to the proper extremity—15 to 25 pounds of weight being used.

The patient is maintained in extension for 8 weeks. Physical therapy is resorted to for 2 weeks—baking and massage being given to back and thighs for tissue tone restoration. The patient is up in a wheel chair at about 12 weeks; on crutches from the 14 to 16 weeks following the accident.

A motion picture was shown presenting the retrograde type of operation. There was also a reel on "Modern Methods of Bone Graft and Open Reduction of Fracture of Femur."

In discussion, James C. Murdock, Greensburg, asked Dr. Weil concerning his rule for removal of a bone plate. The latter replied that a painful limb, painful scar, and infection were definite indications for removal. He reminded users of bone plates to remember that the energy of the tissue cells is consumed in caring for the bone plate and, therefore, less callus is to be found. Surgeons were strongly warned against securing the plate too snugly with the screws employed. Dr. Weil suggested that the screws be firmly tightened and then slightly loosened, if best results were desired. Dr. Griffith, Monessen, expressed the opinion that having employed bone grafting and then plating he had concluded that silver wire was the best material for internal fixation. In response, Dr. Weil stated that in his experience fixation was not secure with silver wire. He mentioned a preference for Swedish iron wire or a German alloy wire, providing "wiring" is the technic of the surgeon's choice for bone union.

JOHN C. PROTHERO, Reporter.

WYOMING

Jan. 10, 1934

Mr. Albert, chairman of the Emergency Relief Board of 4 counties including Wyoming, explained the workings of and answered questions about the relief work as it affected our members. In part he said he realized that the scheme as it has developed is not to the advantage of the country practitioner, as it was designed more to meet the needs of the cities, but the plan was made and would have to be carried out. He desired an advisory committee to be appointed to pass on the bills presented by members of the society; the president appointed William W. Lazarus, T. Oliver Williams, and Arthur B. Davenport.

It was announced that there were limited funds avail-

able from the Red Cross contributions to supply a few pairs of glasses for very needy cases. Attention was called to a bulletin warning of the spread of amebic dysentery, a result of the Chicago epidemic.

The auxiliary joined in a luncheon preceding the meeting.
ARTIUR B. DAVENPORT, *Reporter*.

YORK

Feb. 17, 1934

President James F. Wood, Mt. Wolf, in the chair. Charles Geschickter, of Johns Hopkins Medical School, Baltimore, Md., spoke on "Tumors of the Breast."

He said, in part: Twenty-five per cent of the tumors met in surgical practice are breast tumors; the majority of tumors connected with sex; 80 per cent stomach cases in males; and carcinoma of uterus and breast in females.

Tumors of the breast occur at all ages, both benign and malignant; cancer rarely before age 21; less than 5 per cent of patients with cancers are under age 30; under age 30, bear in mind the benign fibromata; chronic cystic mastitis between age 20 and 40 is common; about menopause, cancer of the breast is the predominant breast tumor.

Location: (a) Lesion of nipple (nonulcerated) benign keratosis; (b) lesion below nipple usually benign papilloma; and (c) multiple in distribution, chronic cystic mastitis; and (d) periphery of breast, usually cancer.

The time at which breast enlargement occurs is also important in diagnosing type of growth; majority of breast tumors in males are the virginal hypertrophies, not cancerous in type.

The chief forms of breast tumors and the diagnostic points are based on physiology rather than pathology (pathologists vary in terminology of tumor masses).

Methods of examination: Inspection; transillumination; palpation; exploration; and microscopic examination.

Determination of findings: (A) Benign: Translucent; regressive; indefinite; mobile; age, under 21; multiple; bilateral; small; and fluctuant. (B) Malignant or doubtful: Opaque; progressive; definite; fixation; bloody discharge; glandular enlargement; and skin changes.

A number of slides with photomicrographs were shown.

Paget's disease, a benign papilloma, should be removed on account of a tendency to undergo malignant change. Cystic disease is essentially an exaggeration in storage capacity of duct system brought on by hormone stimulation; such as cystic adenoma which causes the breast to become lumpy in periphery and occurring during sex life. Adenocystic disease: The breast should be divided into 4 groups as concerns cystic mastitis and these occur in decreasing order of frequency; cystic disease (childless); cystic disease (child bearing); adenosis (childless); and, adenosis (child bearing).

Site of origin: Ducts and gland tissue; ducts are storage, glands are secretory; upon these 2 points hinges the pathology of these cystic breast tumors.

The hormone relationship to these tumors was discussed: Prolan and ovarian in their relationship to the menstrual cycle, lactation, etc.

Gynecomastia, benign male lesion. Fibro-adenoma: An increase in connective tissue stroma, a nodular growth. Cancer: Diagnostic signs such as retraction of nipple, skin changes, dark on transillumination, operable and inoperable cases discussed; radical surgery is indicated. In breast sarcoma mere amputation plus cleaning out of axillary glands is sufficient, as metastasis is not through lymphatics. A warning not to use surgery in inoperable breast cancers was stressed; preferably use radiology.

In discussion, Julius H. Comroe, York, asked concerning the relationship of pain in malignant and benign growths, respectively. George E. Holtzapple, York, asked if there is not danger in too vigorous palpation. H. M. Jamieson (guest), York, discussed biopsy from a pathologist's standpoint and suggested the radio knife or sharp scalpel rather than the dangerous punch. W. Frank Gemmill, York, asked if "shotty breast" is the same as chronic cystic mastitis; and discussed value of pre-operative irradiation, and the technical and diagnostic difficulties of transillumination in the hands of many.

Dr. Geschickter, in closing, stated that pain is rare except late in carcinoma; occurs just before menstruation in chronic cystic mastitis; is not of much differential value. Palpation should be very gentle so as to avoid production of metastasis. Punch operation is contraindicated; frozen section of breast usually more satisfactory than in other growths. "Shotty breast" is the same as chronic cystic mastitis; preoperative irradiation should always be used when patient is financially able to have it.
H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

NOTES

Good Advice from Minnesota: Dr. I. J. Savage, president of the Minnesota State Medical Association, sends a message to the Woman's Auxiliary in his state which may well be broadcasted to all other auxiliaries as it is of nationwide significance. Dr. Savage foresees even greater effort in public health education among women because of the auxiliary, particularly in the promotion of a program of immunization against diphtheria and smallpox among children of school and preschool age.

He notes that though tuberculosis has dropped from first to sixth place as a cause of death in Minnesota since the early part of this century, the incidence of tuberculosis among girls age 16 to 22 has shown no decrease. He asks: "How much of this is due to dietary fads, insufficient clothing, too many cigarettes, and dances beginning at 10 p.m.? Who are better qualified to inaugurate a campaign of common sense among our high school girls than the members of the woman's auxiliary? How effectively this could be done

among the smaller communities by the women giving an afternoon tea and asking a local doctor to talk to the girls!"

He next considers the fact that cancer as a cause of death has jumped from sixth place in 1900, to second place in 1930, not only in his state but in the country as a whole. Therefore, he believes, every available educational measure should be used. Contact with other women's clubs may be effected through the auxiliaries. He should like to see every branch of the auxiliary sponsor a public cancer meeting in its own community.

(This is as necessary in Pennsylvania as in Minnesota.—*Editor*.)

From the Pittsburgh Medical Bulletin: "The Medical Benevolence Fund is the most beautiful thing in our auxiliary life. It is a lighted candle placed in our hands when the way is dark and the going seems impossible. It is that certain something which stands between us and want, if ever the time comes when we should be in need. And while we do not have the need at present, we know that some one, somewhere, is being made happier and surer of himself and of the worthwhileness of living, because of Medical Benevolence."

From the National President, Mrs. James Blake: "One of our goals during the rest of our fiscal year should be the cementing of our membership. There should be no delinquents and no lost members and every doctor's wife should be approached and invited to be with us. Every county president should fix her eye upon the goal and with her officers forge ahead. If there are slippery stones in the path, replace them by strong, durable substitutes. If by accident side paths are distracting your membership, try to recall the goal and return them to the direct route."

COUNTY AUXILIARY REPORTS

Allegheny.—More than 80 per cent of the membership attended the meeting in the French Room of the Hotel Schenley, Jan. 23. After a short business meeting, Dr. Thomas S. Arbuthnot addressed the auxiliary on the subject, "An African Hunting Trip," his talk being illustrated with motion pictures in natural colors. Dr. Arbuthnot has a national reputation as a hunter with gun and with camera.

Mrs. Leone Marquis Woelfel, chairman of music, entertained with three vocal numbers. Tea was poured.

Berks.—On Jan. 8, the auxiliary held its annual open meeting, with representatives from many of the Women's Clubs of Berks County as guests. More than 80 persons were present.

The business session was conducted by the president, Mrs. Wellington D. Greisemer. The speakers were Drs. Thomas Butterworth and Louis J. Livingood. Dr. Butterworth gave an informative talk on the use of cosmetics; Dr. Livingood, on the care of the child. The program was followed by vocal selections and a tea.

Dauphin.—At the meeting on March 20, the speaker was Paul Selsam, Ph.D., on "Present Day Problems."

In a letter from a member of this auxiliary, M. Elizabeth Hartman, who is now at the Women's Christian College, Madras, India, tells of the appalling poverty, ignorance, and filth existing there.

Delaware.—At the meeting on April 12, at 8:30 p.m. in the Chester Hospital, the speaker was Mrs. Roland G. E. Ullman who discussed the modern drama and read a play illustrative of the times.

On April 7 a card party was given in the Ridley Park Auditorium, at 8:30 p.m.; the proceeds were donated to the Medical Benevolence Fund.

Erie.—A short business meeting was held and tea was served at the meeting on March 5, at the home of Mrs. William B. Washabaugh, at 2 p.m.

A book review of *Within This Present*, by Margaret Ayer Barnes, was given by Mrs. Grace Stanton Love.

The auxiliary held a bridge-tea in February at the Y. W. C. A. Building with more than 200 guests. Proceeds supplied 13 pairs of glasses for some deserving poor children. There is a keen sense of satisfaction in work of this nature. The auxiliary is deeply grateful for the many courtesies of the managers of the Y. W. C. A., for the mints from the Martha Washington Candy Shop, and for the beautiful floral center piece from Neuner's Rosery. The chief compensation comes from the thought of the children who will have their vision restored to normal or near normal through the generosity of the auxiliary and its friends.

Franklin.—In keeping with its annual custom of several years, the auxiliary entertained the physicians at a dinner, given in the Sunday School Room of the Trinity Lutheran Church at Greencastle. The occasion marked an event which has been given annually for several years.

There were about 50 guests, and Mrs. S. Dana Sutcliffe, of Shippensburg, president of the auxiliary, presided. The address of the evening was by Dr. Boyd Edwards, headmaster of Mercersburg Academy, who stressed the qualities of good citizenship.

Singing interspersed the program. The dinner was preceded by meetings of the medical society and the auxiliary. At the meeting of the auxiliary, a report showed that 84 garments had been given to the Chambersburg Hospital during the past year, and to the Waynesboro Hospital.

It was also reported that five hundred second-hand books had been contributed to the library of the Mont Alto Sanatorium during the past year.

Lackawanna.—A business and educational meeting was held on Feb. 13, with Mrs. James D. Lewis presiding.

A letter was read from Dr. Walter F. Donaldson, secretary, State Medical Society, in acknowledgment of a check for \$10 anonymously donated.

Dr. Jonathan M. Wainwright, Scranton, was the guest speaker. He gave an account of his experiences in Africa, illustrated with lantern slides.

A fashion show was conducted by the auxiliary, March 10, for the benefit of the Medical Benevolence Fund. Members of the auxiliary served as models.

Lehigh.—The regular meeting of the auxiliary was held on Tuesday, Jan. 9, at 2 p.m., in the Womans' Club House. The new president, Mrs. H. H. Earp, presided and appointed the new committees for the year.

On Feb. 13, at 2 p.m., the auxiliary entertained friends at a Valentine social, which was held in the Woman's Club House. Contract and auction bridge were played and attractive favors were awarded. Coffee and doughnuts were served, Mrs. Halbur H. Earp, president, and Mrs. S. Mann Uhler, vice president, pouring. Proceeds were donated to the charity fund. During the week of March 2, the auxiliary sponsored a motion picture show at the Embassy Theatre, the proceeds were added to the charity fund.

The regular monthly meeting was held on Tuesday, March 13, at 2 p.m., in the Woman's Club House.

After a business meeting, Mrs. Forrest G. Schaeffer, program chairman, presented an interesting St. Patrick's Day program. Refreshments were served.

The annual spring card party was held on Saturday, April 7, at 2 p.m., in the Woman's Club House. Mrs. Elwood Helfrich, acting chairman of the Ways and Means Committee, was in charge.

Lycoming.—The regular meeting followed a luncheon at the Woman's Club, Feb. 9. A new member was introduced.

Mrs. James H. Burrows, first vice president, conducted the meeting. Mrs. Edward Lyon, president of the State auxiliary, spoke concerning the work among the various county organizations in the State. An acknowledgment was presented from the Williamsport Hospital thanking the Auxiliary for the donation of \$300 towards the deep therapy machine.

Montgomery.—The new president is Mrs. Herbert B. Shearer; president-elect, Mrs. J. Lawrence Eisenberg; first vice president, Mrs. Henry D. Reed; second vice president, Mrs. Donald M. Headings; secretary, Mrs. Harry C. Podall; treasurer, Mrs. John T. MacDonald; directors for 2 years—Mrs. J. Newton Hunsberger and Mrs. Robert W. Randall.

The Auxiliary Birthday Luncheon was held at the Norristown Club, Feb. 22, with 40 members and guests attending. The guests were Mrs. Edward Lyon, of Williamsport, State president, and Mrs. R. L. Tomlinson, of Wilmington, Del., president-elect of the National Auxiliary. After the luncheon, bridge was played.

The March meeting was held at the Nurses' Home, March 7, about 21 members were present, Mrs. Shearer presiding.

A card party was held on April 4 at the West Norristown Women's Club, proceeds of which were applied to the Medical Benevolence Fund. Dr. Harry C. Podall, psychiatrist, spoke on "Mental Deficiencies."

Montour.—The third meeting for the year 1933-34 was held Feb. 16, at the home of the president, Mrs. Henry F. Hunt.

Mrs. Edward Lyon, State president, gave a history of the founding of the auxiliary in Pennsylvania, outlined its plans and policies, and told of the work of the various auxiliaries throughout the State.

The auxiliary, during the past year, has been co-operating with the State nurse in furnishing needed layettes. The material is supplied by the auxiliary and the work done by members. The members have also been acting as chauffeurs in bringing children from the outlying districts to the Clinic for various treatments.

The next meeting will be held in conjunction with the observance of Mental Hygiene Day at the Danville State Hospital in May.

Following the meeting, the members were entertained at a tea by Mrs. Hunt.

Philadelphia.—At the meeting held on Tuesday, March 14, the entire program which followed the business meeting was written and presented by the Juniors.

Two promising young artists made graphic crayon sketches while Constance O'Hara was diverting the large audience with an amusing monologue. Following this a sketch "Alice in Wonderland" was presented.

The financial statement given in the current issue of *The Formula*, the monthly news issue of the organization, shows that \$1149.22 has been raised by the Ways and Means Committee during the current year.

This is exclusive of the dues and will all go for

various forms of medical welfare. To date \$826 of this amount has been given to the Aid Association of the Philadelphia County Medical Society, the United Campaign, the Red Cross, milk for undernourished children, and other benevolences. Several projects are being sponsored by the auxiliary before the season closes and further appropriations will be made to the State Benevolence Fund and other worthy causes. Five new members were received at this meeting.

The "Ninth Birthday Tea," followed the program, and crowded the grill room of the County Medical Society Building.

Medical News

Births

TO DR. AND MRS. KENNETH S. TREIBER, Erie, a son, recently.

TO DR. AND MRS. CREEDIN S. FICKEL, Carlisle, a son, recently.

Engagement

MISS ROSE-VINCENT LYON, daughter of Dr. and Mrs. B. B. Vincent Lyon, Philadelphia, and Mr. Lawrence Price Sharples, Haverford.

Marriage

MISS ELIZABETH BORSELLA, Washington, D. C., to Dr. George G. Ebandjieff, Nanty Glo, Feb. 1.

Deaths

LEWIS C. ROBINHOLD, Auburn; Jefferson Medical College, 1891; March 9.

ULYSSES G. RISSE, Campbelltown; Jefferson Medical College, 1897; aged 63; Feb. 10.

JOHN M. BARTHMAIER, Philadelphia; Hahnemann Medical College, 1890; aged 78; Feb. 17.

E. MEAD JOHNSON, president of Mead Johnson & Company, Evansville, Indiana; March 20.

THEODORE P. SIMPSON, Beaver Falls; Bellevue Hospital Medical College, 1877; aged 76; March 6.

ISAAC REBER WOLFE, Esq.; Jefferson Medical College, 1895; aged 69; recently, cerebral hemorrhage.

WILLIAM P. S. HENRY, Everett; University of Pennsylvania School of Medicine, 1882; aged 77; Feb. 17.

J. MARION VASTINE, Bloomsburg; Medico-Chirurgical College, Philadelphia, 1899; aged 60; recently.

MARGARET FRANCES GANGLOFF, daughter of Dr. and Mrs. Edward J. Gangloff, Philadelphia; aged 3; March 1.

HORATIO PILKINGTON, Philadelphia; University of Pennsylvania School of Medicine, 1879; aged 78; March 1.

CHARLES B. CHIDESTER, Erie; College of Physicians and Surgeons, Baltimore, 1881; aged 75; Feb. 10, pneumonia.

JAMES I. POLLUM, Du Bois; University of Pittsburgh School of Medicine, 1906; aged 57; Dec. 30, 1933, angina pectoris.

MRS. NAOMI BITTING LE BOUTILLIER, wife of Dr. Theodore Le Boutillier, Philadelphia; March 12. Her husband and 3 children survive.

CARL HEMPEL REED, Philadelphia; University of Pennsylvania School of Medicine, 1882; aged 73; Feb. 6, bronchopneumonia and prostatic obstruction.

MRS. JANICE MCGLYNN KEEGAN, wife of Dr. Arthur P. Keegan, Philadelphia; aged 45; Feb. 19, heart disease. She is survived by her husband and 3 sons.

CLAUDE A. DUNDORE, Philadelphia; Jefferson Medical College, 1887; member of his county and State medical societies and a Fellow of the A. M. A.; aged 68; March 8.

ANNA JOHNSTON, Pittsburgh; Cleveland Homeopathic Medical College, 1898; aged 72; Jan. 21, carcinoma of the mediastinum with metastases to the right lung and abdomen.

ARMINIUS HANKS EVANS, Saxton; Medico-Chirurgical College, Philadelphia, 1892; member of his county and State societies and a Fellow of the A. M. A.; aged 77; March 5. Survived by an adopted daughter.

EDWARD AMES ROBINSON, Philadelphia; Hahnemann Medical College, 1893; aged 63; Feb. 15. He is survived by his widow and 2 brothers, one of whom is Dr. William A. Robinson, former city chemist of Philadelphia.

AMOS WILLIAM SHELLEY, Port Royal; Bellevue Hospital Medical College, New York, 1874; oldest practicing physician in his county; president of the First National Bank of Port Royal; aged 83; Feb. 2. He is survived by his widow, 2 daughters, and a son, Dr. Penrose H. Shelley of Port Royal.

LEON VAN HORN, Philadelphia; Jefferson Medical College, 1896; surgeon in the U. S. Public Health Service and connected with the Service since 1920, being in charge of immigration health work at the Gloucester, N. J., station; captain in the Medical Corps of the U. S. A. during the World War; aged 67; Feb. 21. He is survived by his widow and a son.

ALEXANDER ABRAHAM ARON, Philadelphia; University of Pennsylvania School of Medicine, 1906; medical examiner for the Philadelphia Civil Service Commission; formerly associated with the Workmen's Compensation Board; not a member of his county medical society; aged 50; March 5, after a long illness. He is survived by his widow and a brother, State Senator Max Aron.

HENRY ARTELT, Philadelphia; University of Pennsylvania School of Medicine, 1897; aged 65; March 10. Dr. Artelt received his preliminary education at the Central High School, Philadelphia, and upon graduation in medicine, did graduate study in Vienna. He was a charter member of the Penn Athletic Club, Philadelphia. He is survived by his widow, a daughter, and a son.

CHARLES ORIN W. BARTINE, Philadelphia; Hahnemann Medical College, 1903; formerly school physician for the Philadelphia Board of Health; served in the Medical Corps of the U. S. A. during the World War; was a son of D. W. Bartine, who for many years was professor of algebra in the Boys' Central High School, Philadelphia; aged 55; March 8, heart disease. He is survived by his widow.

OCTAVIUS PEARL LARGE, Philadelphia; Medico-Chirurgical College, Philadelphia, 1898; aged 66; March 14, at Temple University Hospital. Dr. Large was born in Bucks County, Pa., and upon graduation began practice in Philadelphia. He was a member of his county and State societies and a Fellow of the A. M. A. He is survived by his widow, a daughter, and a son, who is a medical student at Temple University.

JAMES EDWARD DICKINSON, Harrisburg; University of Pennsylvania School of Medicine, 1899; aged 59; March 12, uremic poisoning. Dr. Dickinson received his early education at the Steelton High School and the York Collegiate Institute. He organized Harrisburg's Board of Health, for many years was president of the board. In 1913 he was elected to the State Legislature, where he served one term. He was on the staff of the Harrisburg Hospital and a member of the Harrisburg Academy of Medicine. He is survived by his widow and father.

PETER N. K. SCHWENK, Philadelphia; University of Pennsylvania School of Medicine, 1882; aged 79; Feb. 17, pneumonia. Dr. Schwenk was born in Valley View, Schuylkill County, Pa., and a graduate of Ursinus College. He and his twin brother celebrated their 78th birthday together, August, 1932. For 20 years he was chief surgeon of the Wills Hospital, Philadelphia, having been on the staff for 40 years. He was a member of his county and State medical societies, American Ophthalmological Society, American Board for Ophthalmologic Examinations, and the American College of Surgeons; a Fellow of the A. M. A.; American Academy of Medicine, and College of Physicians. His widow, a son, and a brother survive.

Miscellaneous

DR. FRANK M. BUCKINGHAM, Tidioute, has been quite ill following an appendectomy.

DR. RICHARD B. STEWART, Warren, is convalescing from severe contusions due to a fall.

DR. WILLIAM M. ROBERTSON, Warren, is still confined to his home and badly crippled from arthritis.

DR. JAMES G. KOSHLAND, Lewistown, was operated on at the Jewish Hospital, Philadelphia, March 19.

DR. DANIEL J. DONNELLY, Philadelphia, is convalescing at the Jewish Hospital, following an operation.

DR. AUGUSTUS H. CLAGETT, Drexel Hill, was operated on at the Delaware County Hospital, March 15, for intestinal obstruction.

DR. WILLIAM H. MAYER, Pittsburgh, addressed the Washington County Medical Society, March 14, on "The Physician Looks Into the Future."

THE SECOND ANNUAL CLINICAL LECTURES under the auspices of the attending staff of Mercy Hospital, Philadelphia, were held Feb. 26 to March 2.

THE RESIDENT PHYSICIANS of Lansdale have organized a medical club which will meet in an informal manner bimonthly. Dr. Clark Long entertained the group at his home, Feb. 16.

DR. LUTHER C. PETER, Philadelphia, presented a paper before the Ophthalmological Club of Washington, D. C., March 1, on "The Technic of Electrocoagulation for Retinal Detachment."

DR. ABRAHAM I. RUBENSTONE, medical director, Mount Sinai Hospital, Philadelphia, will deliver the eighth of a series of public health talks, April 25, at 8:30 p. m., on "Diabetes."

MISS FRANCES SEPSE, who killed Dr. Paul Hess of Reading, Jan. 8, was recently tried for murder. The jury brought in a verdict of first degree with recommendation of life imprisonment.

PITTSBURGH SLIT LAMP SOCIETY sponsored a series of lectures and demonstrations on Orthoptic Training under the direction of Prof. B. W. Kelly, of the Falk Clinic, during the week of April 2 to 7.

THE 113TH ANNIVERSARY of Founders Day of the Philadelphia College on Pharmacy and Science was celebrated Feb. 23. Dr. Robert L. Swain, president, American Pharmaceutical Association, delivered an address on "The Need for a Definite Pharmaceutical Program."

THE WILLIAM POTTER MEMORIAL LECTURE of Jefferson Medical College was delivered in the college building by Dr. Charles R. Stockard, professor of anatomy, Cornell University Medical College, March 1, on "The Genetic Basis and the Internal Secretions in Growth Types and Body Forms."

AT THE MEETING of the College of Physicians of Philadelphia, held March 7, Dr. Herbert C. Clark, director of the Gorgas Memorial Laboratory for the Study of Tropical Diseases, Panama City, Republic of

Panama, read a paper on "The Gorgas Memorial Laboratory and Research Problems Engaging Its Attention."

OWING TO LACK OF FUNDS, the Bryn Mawr Hospital has been forced to close one of its wards. The trustees are hoping to raise the necessary funds to reopen it. As this hospital receives neither State aid nor Welfare funds, the community served must recognize its obligation and rally to its support.

AT THE RECENT MEETING of the Board of Trustees of the A. M. A., Ralph Pemberton, Philadelphia, was elected to succeed himself as a member of the Council on Physical Therapy. Fred D. Weidman, Philadelphia, was elected to succeed Jay F. Schamberg, on the editorial board of *Archives of Dermatology and Syphilology*.

CHARLES M. THOMAS, Sunbury, district censor of the Northumberland County Medical Society, was knocked down by a "hit and run" driver, Feb. 11. Dr. Thomas sustained a compound, comminuted fracture of the middle and lower third of the right tibia and fibula, and a fracture of the left fibula. He is making a good recovery.

DR. B. FRANKLIN STAHL, Philadelphia, was tendered a reception by the Philadelphia College of Pharmacy and Science, March 19, to celebrate the Fiftieth Anniversary of his graduation from that institution. President Wilmer Krusen presided. Among the speakers were Drs. Alfred Stengel and William Pepper, and Moses Behrend, president-elect of the State Society.

HENRY CLARK COE, New York, professor emeritus of gynecology, University and Bellevue Hospital Medical College, and a colonel in the Medical Reserve Corps, U. S. A., was decorated recently with the Order of the Purple Heart by General Pershing at the Walter Reed Hospital in Washington. This order was founded by George Washington. Dr. Coe and his textbooks will be recalled by the older generation.

THE FEBRUARY ISSUE of *Archives of Pediatrics*, known as the "Semicentennial Number," commemorates its fifty years of continuous publication, and is dedicated to the pediatric pioneers of 1884. When founded it was the first journal in the English language on the diseases of infants and children and the editors aimed to keep it clinical in character, which has been maintained during these years.

THE THIRTY-SEVENTH ANNUAL MEETING of the American Gastro-Enterological Association will be held at Atlantic City, N. J., April 30 and May 1. Headquarters and all sessions will be at Hotel Traymore. The medical profession is cordially invited. Drs. Ralph Pemberton, Henry L. Bockus, Martin E. Rehfuss, and I. S. Ravdin, all of Philadelphia, will present papers, and Harold W. Jones, George M. Piersol, B. B. Vincent Lyon, and W. A. Swalm, Philadelphia, will be among the discussors. For any further information, address the secretary, Dr. Russell S. Boles, Rittenhouse Plaza, Philadelphia, Pa.

HELENE LIPPAY-WASTL, professor of physiology at the Woman's Medical College of Pennsylvania, was seriously injured by a fall from her horse while riding in Fairmount Park, Philadelphia, early in January. Dr. Wastl suffered a very severe concussion of the brain from which she is slowly recovering. She will be unable to resume her work during the remainder of the academic year. Roberta Hafkesbring, assistant professor of physiology, has been designated to act as head of the department of physiology during the current emergency.

THE FOURTH MONTHLY POSTGRADUATE ASSEMBLY, under the auspices of the Montour County Medical Society, was held at the Geisinger Memorial Hospital, Feb. 23, beginning at 8 a.m. with an obstetrical clinic conducted by R. E. Nicodemus. The meeting was in the nature of a symposium on gynecology and obstetrics.

The guest speakers were Emil Novak, associate in gynecology, Johns Hopkins University Medical School, and John C. Hirst, assistant professor of obstetrics, University of Pennsylvania School of Medicine.

AT THE ANNUAL MEETING of the Philadelphia Alumni Society, of the medical department of the University of Pennsylvania, held Feb. 17, at the Penn Athletic Club, the following officers were elected: President, Henry B. Ingle; honorary vice-president, Thomas S. Gates, president of the University of Pennsylvania; vice-presidents, John E. Hume, E. S. Saylor, and L. Waller Deichler; treasurer, A. H. Boyer Drake; corresponding secretary, Stephen E. Tracy; and recording secretary, Myer Solis-Cohen.

AS A RESULT OF A STUDY of the records in medical school of students entering the Woman's Medical College of Pennsylvania with respectively 4, 3, and 2 years of premedical academic work, it has been recommended by the faculty and confirmed by the corporation that students entering this school in September, 1935, will be required to present evidence of completion of 3 years of premedical college study. Special consideration will be given to individual cases in which equivalence of training or demonstrated unusual scholastic ability and intellectual maturity may warrant exceptional action.

THE BOARD OF TRUSTEES and the staff of the Mercy Hospital, Wilkes-Barre, conducted a Postgraduate Conference, March 15, 8 a.m. to 4:30 p.m. The guest speakers were President Donald Guthrie of the State Society; Charles C. Norris, department of obstetrics and gynecology, University of Pennsylvania Hospital, on "Significance of Uterine Bleeding of the Menopause"; William L. Estes, Jr., surgeon-in-chief, St. Luke's Hospital, Bethlehem, on "Amputations"; William D. Stroud, professor of cardiology, University of Pennsylvania Graduate School of Medicine, on "Coronary Disease."

THE ANNUAL MEETING of the American Association on Mental Deficiency will be held at the Hotel Waldorf Astoria, New York, May 26 to 29, inclusive. The Saturday session, May 26, will be given over to the sociologic, psychologic, and the special educational aspects of the problem in order that local social workers and school teachers may have an opportunity to attend without interfering with their regular duties. The Tuesday afternoon session will be a conjoint meeting with the American Psychiatric Association. Data as to the program may be obtained from the secretary, Dr. Groves B. Smith, Godfrey, Ill.

MEAD JOHNSON & COMPANY is offering \$20,000 in two awards; the first award of \$15,000 for clinical research and the second of \$5,000 for laboratory research, in determining how much vitamin A is needed by human beings. Present knowledge of this vitamin is on investigations with rats, which become blind and die when completely deprived of vitamin A. The award is offered in the hope of stimulating research that will yield exact knowledge as to why or whether human beings need vitamin A and how much of it. Ten physicians and biochemists will act as judges. The time limit has been set as Dec. 31, 1934, but may, at the discretion of the judges, be extended to Dec. 31, 1936.

DR. WILLIAM H. EVANS, Pittsburgh, recently received a Silver Star Medal and a citation for heroism during the World War. He volunteered his service, Aug. 20, 1918, near Cheri Chartreuve to locate Ralph Zimmerman, an observer posted to give calculations for return gunfire. A mile out on the shell-torn field he found him, apparently dead, his shoulder shattered by gunfire, and carried him back to headquarters through heavy fire. After the war Evans returned home and studied medicine. He received his degree and began practice. Five years ago at the funeral of a veteran he met this Ralph Zimmerman and now they celebrate every Armistice Day together.

THE ANNUAL TESTIMONIAL dinner-dance of the Lackawanna County Medical Society to the outgoing president, Milton M. Rosenberg, and the installation of the new president, Walter W. Propst, was held at the Hotel Casey, Jan. 20. One hundred fifty members of the society, their wives and friends, were present. Greetings were conveyed by the presidents of all the local professional organizations and from each of the near-by county medical groups. Among the speakers were: Charles Falkowsky, Jr., Donald Guthrie, and Moses Behrend, respectively past-president, president, and president-elect of the State Society.

ANY ONE INTERESTED in art and happens to be in New York City, should they pay a visit to the Grand Central Galleries at Fifty-first Street and Fifth Avenue will be interested in the arrested runners and motionless football players in the statuettes and friezes of the distinguished sculptor and athletic authority, Dr. R. Tait McKenzie. As a physician and a sculptor, Dr. McKenzie knows anatomy. As head of the department of physical education at the University of Pennsylvania for years and as official overseer of all Penn teams and athletes, he knows games and the players thereof. His work has long pleased the art critics. It will be no less satisfactory to the followers of sport. His runners, boxers, hurdlers, wrestlers, football players and what-not are true to life down to the last detail.

AT THE FIFTIETH ANNIVERSARY of the founding of Temple University, Philadelphia, at the midyear commencement, Feb. 15, the honorary degree of Doctor of Science was conferred upon Royal S. Copeland, M.D., United States Senator from New York, and George E. de Schweinitz, Philadelphia, emeritus professor of ophthalmology, University of Pennsylvania, and a past president of the American Medical Association. Le-wellys F. Barker, emeritus professor of practice of medicine, Johns Hopkins University, delivered an address before the medical department of Temple University, Feb. 14, on "The Present Observation of Medicine in Soviet Russia."

THE MID-YEAR CLINIC of The American Association of Obstetricians, Gynecologists, and Abdominal Surgeons was held at Pittsburgh, March 24. The Gynecological and Obstetrical Clinic was conducted at 9 a.m. at St. Margaret Memorial Hospital by R. A. Gillis and Paul Titus. Luncheon was served at St. Margaret Hospital. Gynecological Clinics were conducted at 2 p.m. at Magee Hospital by R. R. Huggins and B. Z. Cashman. At 6:30 p.m. an informal dinner was given at Fox Chapel Golf Club. An address, "How the Federal Government Fights Kidnapers, Counterfeiters, and Racketeers," was given by James I. Marsh, First Assistant U. S. Attorney, Western District of Pennsylvania.

THE NRA'S 40-HOUR A WEEK STORK has established a new low record for 1933, according to the statistics of the State Department of Health, covering the first 9 months of the year which shows a reduction of 7.1 per cent over 1932 and a 12.3 decrease over 1931. The mortality rate also has decreased so that the drop in births does not signify any great decrease in population. The death rate for 1933 was 10.4 per thousand population, the lowest in the history of Pennsylvania. The feeling is that after all has been said and done that serious health hazards caused by the depression from hunger, malnutrition, lack of medical care, insufficient clothing, and poor housing have failed to increase the death rate. The infant mortality rate for 1933 reached the lowest level ever recorded in this State. There are fewer deaths among those that are born.

ACCORDING TO SPECIAL CORRESPONDENCE of the *New York Times*, Feb. 8, from Prague, application of the methods of the Borgias to such a modern invention as a typewriter, in an attempt to murder a 19-year-old girl, was discovered. The girl, who worked for a chemical firm, complained of eye trouble, sleeplessness, and pains in her wrists and fingers. Her health grew

rapidly worse and finally she suffered from fits of blindness which lasted for hours. Two of her colleagues noticed that the keys of the girl's typewriter were phosphorescent. Analysis showed that radium had been spread on the one key. Through constant touching of this key, the girl had spread the chemical and was suffering from slow radium poisoning. A deformed man working in the laboratory whose attentions had been rejected by the girl, confessed to the attempted murder.

THE JACKSON CLINIC, 16 S. Henry Street, Madison, Wisconsin, is making a survey on the incidence of cretinism in the United States, and would greatly appreciate if any of our readers having records of such cases will communicate with Dr. Arnold Jackson. The information desired is: Name, address, nativity, age, sex, brief physical characteristics, brief clinical history, goiter (present or absent), mental status, results of medication.

No one has ever attempted to make a survey of this kind and it will only be through the coöperation of the medical journals and the profession that it will be possible to make such a survey. He will be especially interested to receive any photographs of these patients. He asks that the names and addresses be given in order to eliminate the duplication of cases. When these data are compiled, he expects to turn them over to the American Medical Association, where they may be filed for further reference and study.

THE FOLLOWING REQUESTS have recently been made: Jefferson Medical College, \$25,000, contingent upon the death of 4 heirs, as a memorial to her husband, the late Dr. Clarence Hoffman, who was associated with the college for 25 years, will of Mrs. Fredericka Hoffman.

Temple University Hospital, \$350,000, will of Mrs. Etta Mellier.

Jefferson Hospital, Philadelphia, \$5000, for establishing a free bed; The Philadelphia Institute for Medical Research, \$15,000, for the study of nervous and mental diseases, contingent upon appointment of Dr. Charles J. Hoban, Philadelphia, to the institute's board with the right to name his successor, will of Mrs. Kate Rambo.

The will of the late Dr. William Lambert Richardson provides for a gift of \$100,000 to the president and Fellows of Harvard University to endow a professorship of obstetrics in the Medical School. As a result, the William Lambert Richardson Professorship of Obstetrics has been created. Dr. Richardson also bequeathed \$40,000 to establish the Jeffrey Richardson Fellowship in the Medical School, the income to be awarded each year to a medical student who wishes to continue his work after graduation.

FORTY YEARS AGO, *Clinical Medicine and Surgery* was founded by the Abbott Laboratories, under the name of *The Alkaloidal Clinic*, and, with various changes of name and editorship, has been owned by them ever since. For the past 10 years, under the editorship of Dr. George B. Lake, its editorial policy has been entirely independent; but now, with the passing of its sole ownership to Dr. Lake, it becomes fully independent, in form and in fact as well as in policy. There will be no recession from the high editorial and advertising standards which have been maintained for many years, and no immediate change in its name or format, but it is felt that the new set-up will allow an even greater freedom for coöperation and helpfulness, for readers and advertisers, than ever before. The new editorial and business offices will be in the Medical and Dental Arts Building, Waukegan, Ill., with a Chicago office at Room 670, 410 No. Michigan Ave.

THE STATE COUNCIL for the Blind is conducting a campaign against babies' sore eyes in Pennsylvania. The Wills Hospital, Philadelphia, will establish adequate isolation facilities and special treatment for cases of this type. It is the hope of the State Council that this new service will care for all necessary eye cases

from the southeastern counties: Philadelphia, Delaware, Chester, Berks, Montgomery, Bucks, and possibly Lehigh. For several years the Pittsburgh Eye and Ear Hospital has been the only institution in the State offering isolation care for ophthalmia neonatorum alone. This infection is dangerous, not only to the victim, who is almost certain to lose one or both eyes unless given immediate treatment, but also to all with whom the patient comes in contact.

Cases admitted to the Pittsburgh hospital have dropped from 30 infants in 1928 to 9 in 1932, largely because physicians have become more aware of the dangers of this gonorrheal infection and have insisted upon use of prophylaxis in the eyes of all newborn babies.

Now that the densely populated southwestern and southeastern sections will have a central point for treatment of this highly infectious eye ailment, the Council for the Blind will continue its efforts toward zoning the remainder of the State.

MEMBERS OF THE MEDICAL ADVISORY COMMITTEE, of the Lackawanna County Medical Society, named by President Walter W. Propst, at the invitation of the mayor of Scranton, have held several meetings with the mayor and the head of the department of public health, Dr. Arthur E. Davis. Committee members as their first step moved to take advantage of the opportunity extended by the city health department for the preparation of convalescent serum to be used in the treatment of contagious diseases. Serum has already been obtained from cases of scarlet fever and anterior poliomyelitis and will soon be made available for the treatment of measles, epidemic encephalitis, and other infectious diseases.

Briefly, the plan in action is somewhat as follows:

A physician who has a patient convalescing from one of the above diseases, and in which the diagnosis is practically beyond question, is advised to get an outfit for blood collection from the director's office, about the sixth week of convalescence. Having secured the proper consent from the patient or family, he will withdraw 100 c.c. or more of blood as per directions accompanying the outfit and send it to the director's office where the serum will be separated, tested for sterility and syphilis, properly preserved and placed in sealed vials in the icebox. Upon request, any physician may obtain the serum free of charge for prophylactic or curative purposes. The dose of serum recommended at present will be 5 c.c. intramuscularly for prophylaxis and 20 c.c. or more intravenously for therapy.

MOTHER'S DAY, MAY 13, is to be observed by women's clubs, men's clubs, medical societies, chambers of commerce, and other professional and civic groups who will join in community efforts throughout the nation to "Make Motherhood Safe for Mothers," said Mrs. Shepard Krech, president, Maternity Center Association, New York City.

In 3 previous Mother's Day campaigns, the effort was to arouse the public to the importance of the fact that two-thirds of the maternity deaths are preventable; that 10,000 of the 16,000 women who annually die in childbirth could be saved. The next move, which is to be taken this year, is to do something quite specific and definite about it, with groups working in every community.

Mrs. Krech stated that specific changes cannot be made to improve conditions until persons study their own local maternity facilities and determine what is needed. She indicated that the phases requiring attention may differ widely in various communities. Blank appraisal forms are available. By the use of these, any group of persons may conduct an investigation into the adequacy of what their own town or county is doing for mothers. Such questions as these are to be answered: Number of maternity beds? Total number of births in the last year? Number of deaths in the last year? Is organized prenatal nursing service provided? Is your hospital approved by the American College of Surgeons?

There has been a great deal of sentiment surrounding Mother's Day during the time that it has been observed in this country, said Mrs. Krech. In the past few years there has been a successful effort to direct this fine feeling toward the important subject of saving mothers from unnecessary death. But emotion alone is not enough. We must have facts, pertinent facts, local facts, so that groups in every community may work with their own physicians, health officers, nursing associations, and hospital authorities to alter those factors in the situation which are a barrier to safe motherhood. Only by an appraisal of maternity facilities in every community, and study of their quality, can the great step forward be taken. These blanks are available free, by applying to the Maternity Center Association, 1 East 57th Street, New York City.

THE FOLLOWING IS A TENTATIVE PROGRAM of the American Association for the Study of Goiter, Wade Park Manor, Cleveland, O., June 7, 8, 9, 1934:

Thursday, June 7, morning: registration, Wade Park Manor; clinics, hospitals of Cleveland.

Afternoon, ballroom, Wade Park Manor, 1:30 to 2:30: Stuart Gordon, Toronto, Canada, "Clinical Hyperthyroidism in the Presence of Normal B. M. R."; Urban Maes, New Orleans, La., "Hyperthyroidism in the Negro"; H. M. Clute, Boston, Mass., "Hyperthyroidism in the Aged"; Edward H. Rynearson, Rochester, Minn., "Oxygen Content of the Blood in Hyperthyroidism." 2:50, Intermission. 2:55 to 3:35: Sam Haines, Rochester, Minn., "Iodine in Recurrent Exophthalmic Goiter"; Henry K. Ransom and Robert H. Bayley, Ann Arbor, Mich., "Thyroid Crisis"; W. F. Rienhoff, Jr., Baltimore, Md., "The Histologic Structure of the Thyroid in Patients Cured of Hyperthyroidism by Operation." 3:55, Intermission. 4:00, General Discussion.

Evening, Academy of Medicine: 8:00: Herman L. Blumgart, Boston, Mass., "Indications, Contraindications, and End Results in Treating Various Forms of Cardiovascular Disease by Complete Removal of the Thyroid"; L. J. Karnosh, Cleveland, Ohio, "Psychoses in Hypothyroidism and Hyperthyroidism"; R. M. Howard, presidential address.

Friday, June 8, 9:00, The University Hospitals, clinics, demonstrations, and short papers.

Afternoon, Wade Park Manor, 1:30 to 2:10: Arnold Jackson, Madison, Wisconsin, "A Survey on Cretinism in the United States"; H. L. Foss, Danville, Pa., "A Review of Our Modern Concepts of the Physiology and Pathology of the Thyroid Gland"; Claude J. Hunt, Kansas City, Mo., "Intrathoracic Goiter" (Case Report and Slides). 2:30, Intermission. 2:35 to 3:15: Julian Johnson, Philadelphia, Pa., "An Experimental Study of the Function of the Superior Laryngeal Nerve and Its Practical Application"; George M. Curtis, Columbus, Ohio, "Blood Iodine"; The VanMeter—Prize Award Essay. 3:35, Intermission. 3:40, General Discussion.

Evening, Wade Park Manor, 7:30: Annual dinner (informal); George W. Crile, Cleveland, Ohio, "Comparative Studies of the Thyroid Gland in Animals"; Francis H. Herrick, Cleveland, Ohio, "Life History of the American Eagle."

Saturday, June 9, 9:00, The Cleveland Clinic, clinics, demonstrations, and short papers. 11:30, annual meeting of the association. 12:00, luncheon.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

MODERN CLINICAL PSYCHIATRY: Arthur P. Noyes, M. D., superintendent of State Hospital for Mental Diseases, Howard, R. I., formerly first as-

(Continued on page xii.)

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BOOK REVIEWS

(Continued from page 634.)

sistant physician at St. Elizabeth's Hospital, Washington, D. C., formerly chief executive officer at the Boston Psychopathic Hospital. 485 pages. Philadelphia and London: W. B. Saunders Co., 1934. Cloth, \$4.50, net.

Dr. Noyes' *Modern Clinical Psychiatry* should fill a long neglected spot on the medical practitioner's shelf. Too frequently mental aberrations are regarded as an abstruse specialty from which the general practitioner must remain aloof, and too many of the textbooks are written from this point of view, and largely for the specialist's consumption.

Dr. Noyes brings to his work a breadth of experience, a simplicity of style and a tolerance of point of view which is extremely refreshing. In a field which is beset by controversy and varying schools of thought, the author presents a tolerant and easily understandable description acceptable to the vast majority of practicing psychiatrists.

This book is particularly to be noted for the clarity and simplicity of its approach to the subject of mental mechanisms, its systematic and well proportioned discussion of the various mental disorders, and its clear and detailed presentation of the frequently neglected subject of treatment. The author uses the very effective case record method of approach to the description of the various psychoses. Each chapter is followed by a generous bibliography, pleasing in the preponderance of its English language references.

The book is not exhaustive nor written for the specialist, but it should find a ready acceptance among students and practitioners who desire a thorough, temperate, and understandable guide in the confusing field of mental illness.

INTERNATIONAL CLINICS. (Vol. I, 1934 Series).

A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Louis Hamman, M.D., visiting physician, Johns Hopkins Hospital, Baltimore, Md. J. B. Lippincott Co., Philadelphia, Montreal, and London. Cloth, \$3.

In days of economic upheaval and unprecedented change frequently statements are heard, both from within and without the medical profession, concerning the social dangers inherent in an oversupply of physicians.

The reviewer of *International Clinics* realizes, however, that the average physician can, personally, do little to remedy this evil without taking a self-conducted trip on Charon's ferry. Even this trip, for a self respecting son of Æsculapius, would require an obelus for the aged ferryman and this essential gives us pause.

Each physician can, however, by systematic and persistent study and by taking advantage of his professional opportunities prove an asset not only to his profession, but to any community.

Henry A. Christian of the Peter Bent Brigham Hospital of Boston has recently stated with Socratic brevity: "Physicians may be divided into two great groups, those that are learning and those that are forgetting, those that each year know more and those that each year know less. There seems no third group, those that are stationary." These statements of truth and wisdom were made to emphasize the importance of postgraduate study.

The most efficient and helpful postgraduate study is accomplished in one's own office or in the hospital in which one works and that notwithstanding a perfect consciousness of the inspiration derived from seeing, hearing, and meeting eminent teachers.

It is a well recognized fact that every physician truly worthy of his professional heritage must continue his medical education as long as he continues to practice.

(Concluded on page xiv.)

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BOOK REVIEWS

(Concluded from page xii.)

Added age and additional professional experience, valuable as each is in the acquisition of a medical philosophy, can never safely take the place of continued systematic reading, study, and educational professional contacts. Many physicians cannot, much as they would enjoy and benefit by doing so, go long distances to attend inspiring medical meetings but all can enjoy and profit by a perusal of International Clinics and similar stimulating and thought productive publications by reading them at home.

The latest volume of International Clinics, edited by Louis Hamman, of Baltimore, and with the collaboration of a distinguished group of physicians, surgeons, and specialists, presents the medicine, surgery, and specialties as viewed in 1934, in an interesting, pleasing, and helpful manner.

This is an inexpensive, convenient, and entirely practical method of continuing in Dr. Christian's group of those physicians who are "learning."

If each member of the medical profession does his honest, earnest best to improve himself the menace of an oversupply of physicians will exist only in the imaginations of superficial minded social uplifters.

SURGICAL CLINICS OF NORTH AMERICA:

(Issued serially, one number every other month.) Vol. 14, No. 1. (Philadelphia Number—February, 1934.) 226 pages with 62 illustrations. Per Clinic Year (February, 1934, to December, 1934.) Paper, \$12; cloth, \$16 net. Philadelphia and London: W. B. Saunders Co., 1934.

Articles of unusual merit are contained in this volume. It is hoped that all physicians will read Jackson's admonitions in the performance of an emergency tracheotomy. Extraperitoneal anastomosis is a step forward in the surgery of the biliary tract. The reviewer has never experienced a stricture of the common duct from the use of a T-tube. Ligation or partial destruction is the most frequent cause. The Philadelphia number has sustained its usual high standard.

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VOL. XXXVII

HARRISBURG, PA., MAY, 1934

No. 8

DIATHERMIC TREATMENT OF RETINAL DETACHMENTS*

MARK J. SCHOENBERG, M.D., NEW YORK CITY

It is not necessary to detail to this audience the diagnosis of detachment of the retina. One fails sometimes to recognize an incipient detachment, at times it is almost impossible to make a correct diagnosis. If the cornea is not clear, if the lens has opacities, if the vitreous is cloudy, and if the pupil cannot be dilated ad maximum, then we cannot be sure of our diagnosis.

The pupil must be dilated to the maximum, because the periphery of the fundus cannot be seen through a small pupil. If we do not see the extreme periphery of the fundus, we fail to discover tears which are frequently found at the ora serrata.

In at least one quarter of the cases the pupils cannot be dilated ad maximum. At times homatropine dilates better than atropine. If instillations of the mydriatic fail, an "adrenalin pack" or even a few drops of a cocaine-adrenalin solution (cocaine 1 per cent, adrenalin $\frac{1}{1000}$ equal parts) injected under the conjunctiva near the limbus may succeed in dilating the pupil. Glaucoman may succeed should the former fail.

No correct diagnosis can be made if the media are very turbid and the pupil small.

The second essential point in making a diagnosis is repeated examinations. It is never sufficient to examine a patient with detachment of the retina only once, no matter how satisfactory are the findings nor how well the picture of the fundus is drawn. Repeated examinations are essential. It is well to have some one else examine the fundus of your patient. Do not depend entirely upon your own findings. It happens, not infrequently, that we do not find the tear, though our consultant sees it at the first examination.

An important detail in arriving at the diagnosis is to put the patient to bed. Let him rest a day or two and examine him again in the reclining position: then you may discover a number of details you could not see while the patient was sitting up. After we have completed the examination we should make a drawing of the fundus picture. All these things are very helpful because the discovering and recording of details about the condition of the vitreous, retina, and uvea are of the utmost importance.

To summarize: The first step in the management of a patient with retinal detachment is to make a correct diagnosis. This is obtained by: Dilating the pupil ad maximum; by ophthalmoscopy of the patient in reclining position; by making a careful drawing of the fundus picture. Of course the general condition of the patient has to be carefully studied.

The next step is to decide whether the patient is an operative case or not. We have to follow some rule to help us determine which cases are operative and which are not, because the result of the operation will depend to a large extent on whether we have selected a suitable case or not. How are we going to classify the cases from the practical, surgical point of view?

First, there is a group of cases in which a perfectly healthy eye develops a traumatic detachment of the retina.

A second group comprises those cases which are predisposed to detachment of the retina, like the high myopes, or elderly persons with degenerative changes of the retina in the region of the ora serrata. These cases do not have to be hit with a tennis ball or a stick to develop a retinal detachment. Even slight trauma, like vibration from a "scalp treatment" in the barber's chair, a long drive in an automobile, reading continuously for hours, anything that will jar the eye even moderately may produce a detachment in such eyes.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania. Oct. 3, 1933.

There is a third group of borderline cases with perhaps a few deposits on the posterior surface of the cornea, with a few posterior synechia, a sluggish anterior uveitis, and retinal detachment. Some may consider such cases as suitable for operation; others may refuse to operate. It is all a matter of experience, or perhaps temperament; one surgeon being more conservative than another.

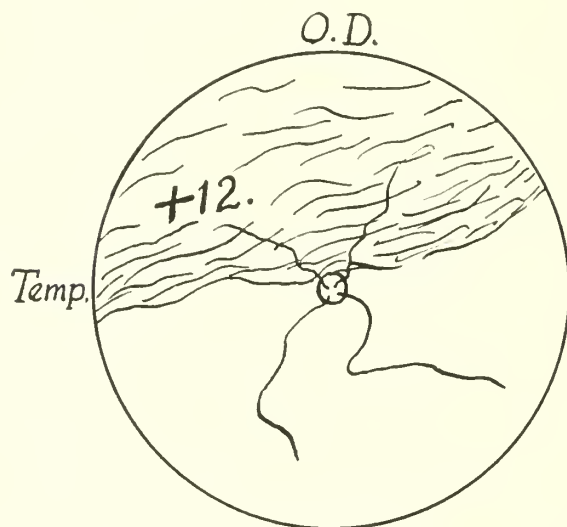


Fig. 1.—Extent of the detachment and its elevation.

The fourth group comprises the tumor cases, in some of which the detachment of the retina may hide completely the presence of the tumor.

There is the fifth group of cases with subretinal hemorrhage or exudate; and the pregnancy cases which may develop detachment of the retina. These patients are of course not suitable for operation.

After we decide that a given case is suitable for an operation, the next step is to make a careful search for retinal tear or tears and to localize them. In the majority of cases we do not succeed if the treatment is not applied to the area containing the tear or tears. It is for this reason that we have to learn how to recognize a tear.

The chief characteristic of a retinal tear is that it appears as a red area with grayish edges. If the tear is large enough one can see the choroid through it, and observe a parallax movement of the edges of the tear. There are other conditions that look like tears, such as small hemorrhages, pseudo-tears, and valleys between two blebs. The pseudo-tears are rents in a shred of retina hanging freely in the vitreous, or openings in organized exudates of the vitreous.

After the area or areas with the tears is found, a detailed drawing of the fundus should be

made. This must indicate the extent of the detachment, its approximate elevation, the presence and location of other changes of the retina, choroid, and vascular system, and above all the location of the tears.

In the Gonin method of operation it is necessary to localize the tear with the greatest accuracy. The diathermic method requires only an approximate knowledge of the seat of the tear. The procedure is as follows: First, make a schematic drawing of a normal fundus.

Second, mark on the drawing the location of the detachment and its elevation (fig. 1). Third, mark the approximate location of the tear or tears. In order to localize the tear determine: (a) Between which clock meridians it is (fig. 2); and (b) how far it is from the ora serrata or optic disk (fig. 3). (A clock hour meridian is a meridian which passes through two opposite points on the clock dial.)

The reader can practice the drawing of fundus pictures of detached retinae, placing on the drawing the tears in various locations. He should not forget that in order to localize the tear in the fundus he needs the following data: (a) The approximate size of the tear; (b) the location as to between which clock—hour meridians; (c) the location as to how far behind the ora serrata or from the optic disk.

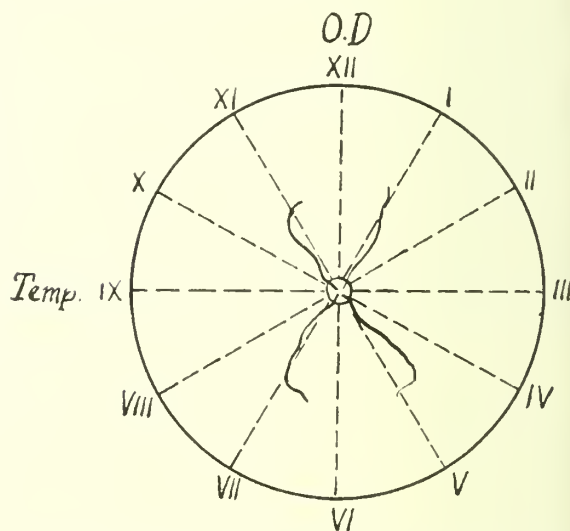


Fig. 2.—The 6 clock meridians are 12—6; 1—7; 2—8; 3—9; 4—10; 5—11. One or several tears may be localized as being between 2 adjoining meridians, or if the involved area is large between 2 nonadjoining meridians.

The fundus picture thus obtained must then be mapped on the scleral surface of the eyeball (figs. 4 and 5).

To illustrate: The fundus examination reveals a retinal detachment involving the upper temporal sector of the right eye. A tear is found between 10 and 11:30 at a distance of 4.5 to

6 mm. behind the ora serrata. If we assume that the ora serrata is situated (in a normally sized eyeball) 8 mm. behind the limbus corneæ, this area containing the tear is located 12 to 14 mm. behind the limbus corneæ between 10 and 11:30 o'clock meridians. The treatment will have to circumscribe this area.

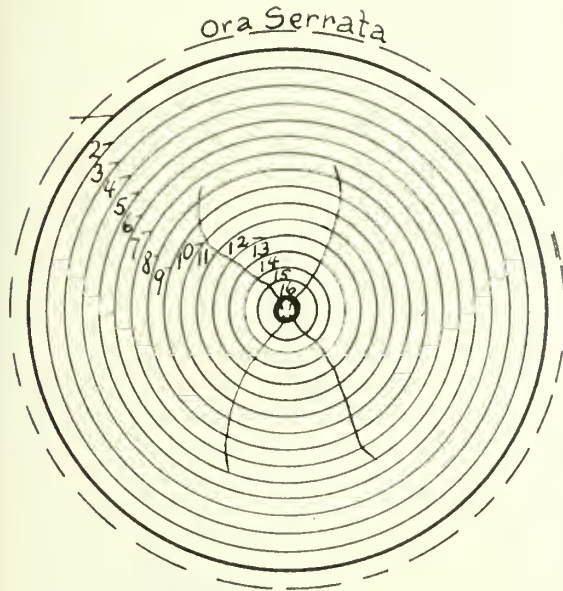


Fig. 3.—The distance between 2 parallel circles on this illustration is equal to a disk diameter or 1.5 mm. A tear situated on circle 1 is about one disk diameter (or 1.5 mm.) behind the ora; if on circle 5, it is 5 disk diameters (or 7.5 mm.) behind the ora serrata, etc. This is only approximate.

TECHNIC OF THE OPERATION

I shall not speak about the Gonin operation. I have done so on previous occasions and several papers on this subject have appeared a few years ago in the *Archives of Ophthalmology*. The Gonin method has failed me in a large percentage of cases. First, because in the early stages, I knew little about operative indications; second, I have often failed in the exact localization of the tear.

Both the Gonin and the Guist methods have given good results in the hands of those who have tried hard to familiarize themselves with these methods. The diathermic method presents among others the following superior advantages: (1) It is far simpler in application than the Guist method; (2) it does not require an exact localization of the tear as the Gonin method does; (3) it causes no injury to the retina or vitreous; (4) operative and postoperative complications are far less frequent; (5) the percentage of good results is higher in the hands of those who possess the necessary knowledge and experience of selecting the suitable cases and of using the proper technic.

TECHNIC OF THE DIATHERMIC METHOD

The patient is prepared as for any major operation on the eyeball. See to it that he or she has had a good night's sleep. The eye is washed clean, the pupil dilated, and a fundus examination is made while the patient is on the operating table. Anesthesia is obtained by instillations of a one per cent solution of holocaine or butyn, a subconjunctival injection of a 2 per cent solution of novocain in the region to be operated on, and, if the operative field is large, an orbital injection of 1 c. c. of a 2 per cent novocaine solution is made.

The conjunctiva is incised at a distance of about 10 to 12 mm. behind and parallel with the limbus. The conjunctiva and tenon capsule are carefully undermined, the episcleral tissue is removed and the sclera is exposed and freed of any loose tissue that may cover it. Any bleeding is stopped by applying an adrenalin-cocaine swab for a few minutes. If the bleeding originates from a larger blood vessel, the application of the tip of a very hot probe will stop it. Glass retractors are introduced in such a way as to keep the tenon capsule away from the eyeball. A hook underneath one of the recti or a forceps holding fast the episcleral tissue near the limbus is used to pull the eyeball in the proper position so as to make accessible the area to be operated upon. Having done all this and having decided

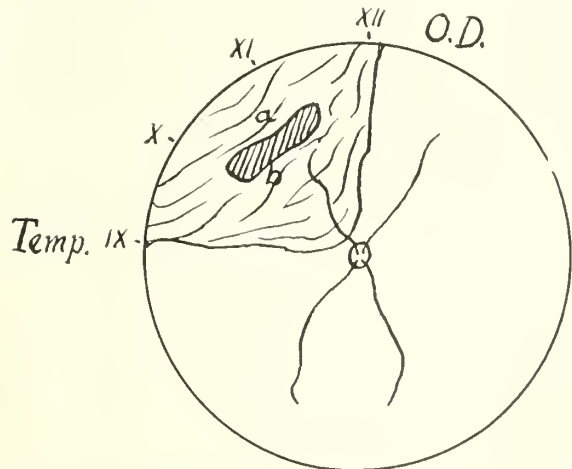


Fig. 4.—Detachment on the upper temporal sector. Edge (a) of the tear located 4.5 mm. behind the ora; edge (b) 6 mm. behind the ora; the tear is between 10 and 11:30.

upon the area which is to be treated, we are ready to apply the diathermic current. Before doing so, we must have clear in our minds that we are striving to accomplish two things: First, to remove the subretinal fluid; and second, to produce a local inflammation or reaction in the choroid, which should segregate or seclude the

tear. Safar has designed a number of electrodes, consisting of one, three, six, or seven pin-points, each $1\frac{1}{2}$ to 2 mm. in length, which when introduced full length through the sclera do not pass beyond the choroid. These needles are driven in by the aid of the diathermic current. The intensity used is just enough to drive the electrodes through the sclera. The distance be-

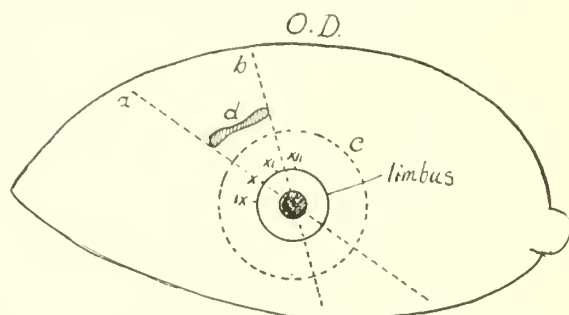


Fig. 5.—The two meridians passing through 10 and 11:30 o'clock (*a* and *b*). Circle *c* representing the ora serrata; (*d*), the outline of the tear located between 4.5 and 6 mm. behind the ora and between clock hour meridians 10 and 11:30. A fairly accurate orientation of the meridians *a* and *b* is obtained by inserting one suture at the limbus through the episcleral tissue, passing through 10 o'clock and its opposite 4 o'clock and another suture at 11:30 and its opposite 5:30 o'clock. This is done with the eye in primary position. The sector on the upper temporal side of the eye limited by these two sutures indicates the scleral area corresponding to the detached retina.

tween the needle points is 2 mm. When the current reaches the choroid it produces a small area of coagulation not larger than 1 mm. in diameter. It is important that the distance between the applications should not be greater than 2 mm. and that the applications should surround the tear area completely. If the tear is at the ora serrata, the applications should be made in a semicircle surrounding the part of the tear

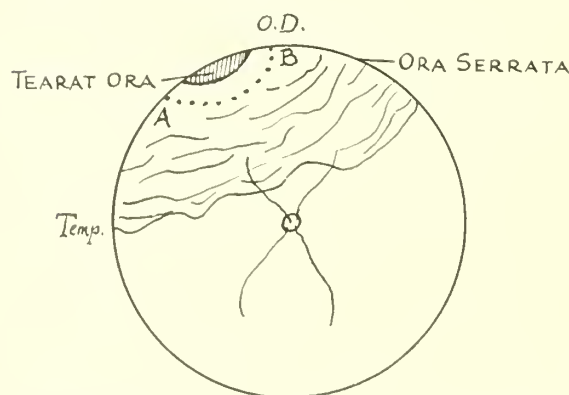


Fig. 6.—Tear at ora. The electrodes are introduced along the line *AB*.

facing the optic disk, the extremities of this barrage ending at the ora serrata. Figs. 6 and 7 will clarify this. These applications are to be made on the scleral surface of the eyeball.

Perhaps in 20 per cent of the cases we are unable to discover the tear. We must determine

where the tear might be. The history of the course and development of symptoms is of great help sometimes. The patient may say he has seen flashes of light, or some slight clouding of a certain definite portion of the field. We will keep this in mind and concentrate our search on the corresponding part of the fundus. I recall having seen a case with 2 large retinal blebs in the lower fundus. After puncturing and emptying the subretinal fluid from both blebs, the eye was watched. After a few days the lower temporal bleb refilled; later, the lower nasal. The conclusion drawn was that there existed a crack in the retina, far beyond the visible fundus (near the ora serrata) and that this defect must be located either at the edge of the lower temporal bleb adjoining the ora serrata or further up, but surely on the temporal side. A line of electropunctures was applied along the ora serrata, close to the temporal side—between 1 and 6 o'clock—and the result was satisfactory.

To mention a few of the causes of failure: Ignorance of whether the patient is a suitable

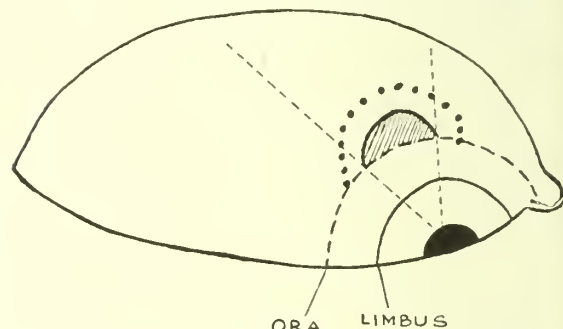


Fig. 7.—Outline of retinal tear on the scleral surface and the line of electropunctures.

case; second cause, though rare, is a copious hemorrhage into the vitreous during or more often several days after the operation; treating only one area and overlooking another with a tear is third cause of failure; not allowing the escape of a sufficient amount of subretinal fluid is a fourth cause. The lack of coöperation on the part of the patient, restlessness during the 2 weeks following the operation, or the appearance of new tears in the retina decidedly vitiate the good outcome of the operation.

As to the after-treatment, one has to hold fast to the teachings of Gonin: Absolute rest, with the head in such a position that the vitreous should exert a pressure upon the region of the choroid which underwent the diathermic treatment. This shall last for 2 weeks. The eye is gently cleansed every 2 to 3 days, but no fundus examination is made before 10 to 14 days. The sutures are removed at the end of the third week. The binocular bandage is kept applied for 2

weeks, then the patient is allowed to wear a stenopeic spectacle (Lochbrille). A cathartic is administered 8 days after the operation. The patient is kept on a very light diet. He is not allowed to move during feeding. The third week, the patient is allowed to get up for an hour and is permitted gradually to sit up a little

longer every day. He is discharged 4 weeks after the operation and instructed to avoid any physical or mental effort for 8 more weeks. He is to wear his stenopeic spectacles for 2 months. Reading, automobile riding, or sexual intercourse are prohibited for 3 months.

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ENDOCRINE DYSFUNCTION IN MALE SEXUAL DISORDERS*

WILLARD H. KINNEY, M.D., PHILADELPHIA

The importance of the endocrine glands both in physiology and pathology has become more evident each day. However complex endocrinology may seem, sufficient knowledge has accrued by means of anatomic and experimental research on the one hand, and clinical and therapeutic observations on the other, to reach many practical conclusions.

Founders of the theory of internal secretions were Claude Bernard and Brown-Séquard. Gley has shown that even they had predecessors, as Legallois and deBordeu. In 1855, Claude Bernard discovered the glycogenic function of the liver and placed the physiology of internal secretions on a firm basis. He described, as a result of a series of investigations from 1855 to 1867, how the secretory cell attracts, creates, elaborates in itself secretions which it pours out, either on the outside of the mucous membrane or directly into the blood stream. Those which were poured on the outside were called external secretions; and those which were poured into the organism itself, internal secretions. Brown-Séquard, in 1889, in his investigations of the therapeutic action of testicular fluid, understood the value of the theory of internal secretions and founded endocrinology. However severely his early researches were criticized, one must admit that the germ of all the ideas which have since been used by experimenters originated with his discoveries. The idea of Claude Bernard on the action of internal secretory glands on the composition of the blood showed that many organs secrete in the blood certain substances which have the ability to act in a selective fashion on certain organs be they near or remote.

Organotherapy had its inception with Murray's application, by injection of thyroid extracts in human myxedema.

There is no more interesting problem in medical research than a study of the glands of in-

ternal secretion, especially those which are vital to the continuance of the race, although knowledge of the functions of such glands existed centuries before these organs were recognized, the idea of relationship between function and structure has undergone rapid development in recent years. At the present time wide interest in the subject is manifesting itself.

To quote Dr. Jean Pratt, the immediate and future problem is to convert faith into belief, assuming that "belief is faith in something that is known, and faith is belief in something that is unknown." The ramifications of the subject are so extensive that the coöperation of all specialists in clinical and laboratory medicine is required to test the various theories proposed especially as concerns their application to man. The approach to different aspects of the problem must vary widely in accordance with the material available.

The laws of nature are fixed and continue to act in spite of our ignorance concerning them. Though the laws do not change, interpretation of them must be revised from time to time in the light of new knowledge obtained. With full appreciation of our ignorance and the possible changes to be expected when factual knowledge of the subject is complete, one is reluctant to record deductions and conclusions from what appear to be facts at the present time.

Many researchers become overzealous and probably too optimistic in their experimental conclusions, as Brown-Séquard, in 1889, reported in himself as the experimental subject satisfactory results had been obtained by the injection of testicular extract, though the validity of the results have never been substantiated. Furthermore we must appreciate the fact that there is a relatively small group of humans who will submit themselves to self-experimentation; on the other hand there is a much larger group who is willing to try treatment, if it offers the slightest hope of relief.

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

Pratt has stated that no apologies are necessary in speaking of man as an experimental subject for life consists of a series of experiments. For example, how else would each individual know what and how much he can eat? Who has not paid nature's penalty in answering these questions? Even in the practice of medicine there are numerous instances daily of experimentation. Does the average person consult a physician for each headache, or does he prescribe something from his own medicine cabinet? In case he should apply to his physician would he always receive a complete neurologic examination on suspicion that there might be a brain tumor? Countless instances of experiment will occur to any one after a moment's reflection. Therefore, if a condition for which there is no specific treatment is explained to a patient according to our best knowledge, it is to be expected that he will want to try anything for relief, provided he can be assured it is not harmful.

Probably the greatest obstacle to satisfactory comparison of reaction to similar stimuli is the psyche which holds minimal importance in lower animals, but maximal in man. In man the physical and the psychical are so closely related and the manifestations of a disorder in either sphere are so intricately intertwined that a proper perspective in any instance can not be obtained without due consideration of both.

Mental disorders and their treatments date back to the beginning of medicine. Psychiatry has developed into a true science beginning with the latter half of the nineteenth century and it must be credited with many laudable advances in its special field of inquiry and therapy. Interdependence of endocrine and psychic disorders offers an intriguing excuse for digression into the field of psychiatry. Though the limitation of the subject, "endocrine disorders in sex function in man," permits recognition of the problems of the psychiatrist it does not allow trespassing in his territory; therefore, all subjective symptoms should be interpreted with extreme caution.

In considering the neuroses in reference to the internal secretions, we are faced with initial difficulty, namely, the ambiguity in the meaning of the term neurasthenia. The name originated with Beard, who regarded neurasthenia as a nervous exhaustion. He considered that its whole origin was in the lowering of the nervous potential and included mental exhaustion which Janet subsequently defined psychasthenia. Neurasthenia is sometimes used to denote every symptom encountered in psychoneurosis.

The obstacles encountered in endocrine research emphasize the complexity of the subject but there are some criteria for judging both

normal and abnormal reactions which permit expression of interpretation in relative if not absolute terms. Rowe began his commendable work in 1912 and since that time has studied more than 3000 individuals. From 1928 to 1931, Rowe and his collaborators attempted to establish standards for judging normal activity of the glands of internal secretion and this work merits serious consideration. Their observations number several thousands, including apparently normal groups, individuals in whom there existed clear-cut involvement of single glands such as castrates, and individuals with one or more glands involved. They gathered clinical evidences from three sources: A comprehensive and detailed history; a thorough physical examination; and laboratory tests. The subjective symptoms described by the patient are the least dependable, not only because of the inexperience of the observer, but also because of his honest lapses of memory as well as intentional suppression of facts. The value of physical examination depends upon the ability, interest, and training of the examiner, a combination achieved only by persistent effort. The reliability of laboratory data depends upon the proper selection of tests readily adaptable to the problem, which can be fully controlled by exclusion of extraneous elements and by comparison with a sufficient number of normals; for example, estimation of a basal metabolic rate is not accurate if the subject who is being investigated has fever or is excited.

Function of one gland can be isolated rarely, on account of interdependence among the glands of internal secretion as well as other body states or functions. Fortunately for the study of sex function, the gonads are not essential to continuance of life, and may be completely removed, affording an opportunity to study the effects which absence of these structures produces on various body functions.

Since the level of any body function is controlled by a number of interdependent agencies, assignment of a specific function to a single gland does not mean that the function of that gland is performed independently, but implies that the gland under consideration is the dominant factor.

For purposes of clarity, Rowe, in his collection of data, defined certain terms that possess a constant meaning. The term "hypofunction" is applied to that condition in which all clinical and laboratory findings indicate a lowered functional level—the extreme picture of which is produced by complete ablation of the gland—in other words, a state of demonstrable diminution or lack of internal secretory activity. "Hyperfunction" is used to indicate a condition in which all

measurable function levels are of opposite sign to those produced by ablation. "Dysfunctional" states are those in which evidences of hyper- and hypo-activity are simultaneously observed. Such conditions arise if endocrine organs initially hyperactive are undergoing a functional involution to an ultimate hypo-active state. A second factor in the production of dysfunction lies in the plurality of certain of the endocrine structures. The adrenal, the adult ovary, and the pituitary, embody two functional independent tissues; still other possibilities exist with the pituitary. Further, the single gland may produce more than one active principle as the result of its endocrine activities. These several variables can produce a number of intermediate dysfunctional states.

The third and last aspect of the investigation has been the study of the level of function of the individual case. After the careful elimination of all nonendocrine disease conditions which might produce the observed deviations from the norm, the data have been interpreted to define a tentative endocrine diagnosis. Finally, the indicated corrective measures have been applied, under careful clinical control and with repeated laboratory tests, to that gland which has been shown probably to be at fault.

Rowe states, first, that no single test can be regarded as significant unless it be checked and controlled by a number of other independent observations. For example, the diagnosis of thyroid disease on the basis of the basal metabolic rate alone is unwarranted.

Second, that no single finding suggestive of an endocrine disease should be adduced to support such a diagnosis until all possible nonendocrine causes of the phenomenon have been ruled out by observation and test. Overenthusiasm in the interpretation of tests to support an endocrine diagnosis may well lead to the failure to recognize the true underlying cause of the patient's disability.

Third, in the study of each case, careful clinical observation is as important as are laboratory tests. The latter furnish a basis of tested fact for the interpretation of the subjective evidences of the former. Equally confirmatory in supporting such evidence is a careful medical history and physical examination which may definitely establish the diagnosis.

The glands concerned in the title of this paper are the pituitary, the thyroid, the testes, the adrenals, and the prostate. The parathyroid glands are not considered for little is known concerning disease produced by disturbance of their function.

Vines reviews a series of conditions said by some to be benefited by parathyroid therapy that

would place this product in successful competition with any of the six best sellers of proprietary origin.

A few glandular structures, such as the pineal, thymus, and spleen, are to be regarded as on the borderline; their place in the endocrine family being by no means firmly established.

The pluriglandular group is made up almost without exception of cases in which surgical intervention in one endocrine gland is superimposed upon functional aberration in another. In Rowe's series of 3000 cases he saw but 2 or 3 in which there had been apparently a coexistent primary disturbance in more than one endocrine gland. The pituitary and thyroid types are classified as "hyper," "hypo," and "dysfunctional." The gonad cases are all classed as "hypofunctional." Exception may be taken to this, though most writers on the subject agree with Rowe that they have never seen a case of hypergonadism. Diagnosis of hypergonadism in cases referred for study is usually found to be based upon a record of a libido in excess of the observer's concept of the normal. Failing one terminal aspect, an intermediate dysfunctional state is hard to define.

Lower states that in spite of accumulating knowledge regarding the interaction of the hormones produced by the endocrine organs we are still too prone to treat only the gland which is obviously malfunctioning without seeking to discover whether the cause of the malfunction may be some disorder in another related gland.

Crile has recently shown that in cases of residual or recurrent hyperthyroidism or even in some cases of primary hyperthyroidism, the adrenals may be attacked and the disease ameliorated or cured. In dealing with diseases of the sexual organs it may be that some distant gland is in part at least responsible for the condition.

Reviewing the literature on the experimental research of endocrine gland disturbances in male sexual disorders, one is confronted by many different conclusions. In the near future these conclusions will be correlated to a much greater degree than at the present.

Hypothyroidism may result in sexual depression. A few cases have been reported in which thyroidectomy has led to atrophy of the sex organs but as Lower says this action may be due to the retardation of the general metabolism which in itself would result in sexual depression.

Hammett reports that in rats thyroidectomy produces diminution or variation in the weight of the testes and an accelerated growth of the hypophysis in the male. Various researchers have investigated the effects of castration on the weight of the thyroid gland but their findings are

not in agreement. Hatai, for example, found that the thyroid is not affected by castration; others report some resultant hypertrophy.

Castration offers an excellent opportunity to study the effects of hypofunction. The extent of the effects produced by removal of the testes varies with the age at which the glands are removed. That an asexual or neutral type results if the testes are removed before sex characteristics are developed is generally accepted, but the effect of loss of these organs in adults is still controversial.

It is logical to assume that the primary function of the internal secretions of the gonads is to control the activity of the accessory reproductive organs and to condition the breeding response for these are without doubt next in importance in reproduction to the formation of different types of germ cells. The growth, differentiation, and function of the epididymis, ductus deferens, seminal vesicles, prostate, and Cowper's gland are largely dependent upon the testis hormone. Little attention has been given to date to the differences in size of these structures following castration, before and after their full functional differentiation. The effect of castration upon other organs of internal secretion has received slight attention and a great amount of work yet remains to be done before the relation of sex glands to other organs approaches exactness.

The relation of the testes to the thymus gland has been worked out by not a few investigators. Hewer reports that the feeding of thymus to young animals delayed development and even produced degeneration of the testes. Romeis in 1926, however, found no resultant changes if an adequate supplementary diet was given. A few reports state that the administration of thymic extract leads to delayed development of the testes, and that testis implants or the injection of adult serum hastens atrophy of the thymus. Most of the reported cases of adrenal tumors have been in females.

Most investigators have found that degenerative testicular changes occur in adrenalectomized animals. That enlargement of the adrenals follows castration has been reported by some research workers; feeding adrenals to animals leads to an increased size of the testes. Swingle and Pfiffner, Hartman, and others, state that there is an accumulating evidence which would indicate a definite gonad-adrenal relationship.

The literature is fairly abundant regarding the pituitary-gonadal relationship. Smith and Engle have shown that pituitary hormone acts on the testes and these in turn on the secondary and

accessory sex characteristics. This work has been carried on by Lower recently.

McCullagh has carried on experimental research on the dual endocrine function of the testes. He has produced a preparation known as "androtin" which has been given clinical trial on numerous patients suffering from hypogonadism. "Androtin," the so-called male sex hormone found in urine, is made by the interstitial cells of the gonads and is comparable physiologically and chemically to theelin, which is formed by the ovaries.

Cryptorchidism is a relatively common condition which demonstrates clinically that internal secretion is independent of spermatogenic function, for in this condition the latter function is always absent while the former is unimpaired. In certain instances placing the testes in their normal position in the scrotum restores spermatogenic function without influencing the internal secretion.

Much has been published in literature regarding rejuvenation. Aversion to the fact that old age and death are natural physiologic processes probably accounts for the paucity of scientific investigations of the physiology of senility. Though most of the literature refers to the male, male and female gonads hold similar relation to the processes of involution; a solution of the problem for one sex would be applicable to the other.

If the importance of the testicle in senility be assumed, the logical procedures to delay involution would be: To delay the loss of function of the testes, or to improve that function; and to replace the testicular endocrine function.

Successful replacement of testicular function has been alleged to follow: Transplantation of testes from the same species or from another species; ligation of the vas deferens, a procedure which has been supposed to increase internal secretory activity; and injection of testicular extracts. It would seem that all the effects claimed to have been produced by transplantation, as Voronoff's technic, could be explained as a reërotization, which can be equally well accomplished by other and simpler forms of psychotherapy as Rowe so well illustrated.

Ligation of the vas deferens as a therapeutic measure is to be considered with the same degree of pessimism as testicular transplantation for the same reasons. Up to the present time there has been no indication that such an operation in any way modifies the rate of hormone secretion, or that it is advantageous in any other respect aside from a sterilizing operation. Since the prostate, seminal vesicles, and vas deferens are such good indicators in animals there is hope that in the future more clinical data will be accumulated

to show changes in those structures associated with variation in testicular function.

Potent testicular extracts suitable for man are not yet available commercially, and even if they were there is no evidence that a gland extract stimulates the gland itself. Moore's theory concerning antagonistic reaction of gonad and pituitary hormones is interesting in this connection. Benjamin, in 1930, injected "male sex hormone," prepared from the urine of young men, into two groups of patients: Young men and those of middle age complaining chiefly of sexual insufficiency; and men beyond the prime of life, with a general decline of activity. The main effects he noted were subjective, that is an increase in sexual potency. He hints at objective changes such as increased metabolic rate, increased blood count, and an increase in the growth of pubic hair.

Lower says that there are two apparent explanations why the hypophysis of the castrated animal becomes hyperfunctioning. First, if the gonads are present they utilize the pituitary secretion, but if absent, the unused hormone accumulates in the blood stream; second, the testes may exert an inhibitory influence on the pituitary gland and in the absence of this eliminating factor the pituitary becomes very active. The functional activity of the pituitary gland can be demonstrated by transplanting the gland to a normal animal, and by such a technic, Martins demonstrated that the pituitary of a castrated animal is hyperfunctioning and concludes that the testes exert an inhibitory influence on the rate of pituitary activity.

Thus, by merely altering the endocrine system, so as to cause hyperfunction of the pituitary gland and to permit the hormone to pass into a normal rat, prostatic enlargement has been obtained. No drugs, chemicals, or medicaments have been injected. This shows that hypertrophy of the prostate is a physiologic reaction, and that the enlargement seen in elderly men may be but an expression of a functional disturbance of the endocrine system. Any condition which stimulates the pituitary gland and the gonads to elaborate an excessive amount of the male sex hormone may result in physiologic prostatic hypertrophy. If this theory is correct, according to Lower, patients having an enlargement of the prostate should have a greater concentration of sex hormone in their blood stream and urine than normal individuals. They demonstrated, after considerable investigation, accurate methods for assaying the amount of sex hormone found in the urine, blood, and spinal fluid. The average concentration of the hormone for various age groups and in different diseases has been determined in

a series of patients suffering from prostatic enlargement. There was much greater concentration of sex hormone in the blood and more excretion by the kidneys than in normal patients.

From a consideration of these results, it would seem that prostatic enlargement is a physiologic mechanical effect caused by hyperactivity of the testes.

During the past year it has occurred to some of us that by elaboration of a technic of approach to the pituitary whereby radium application could be accomplished, prostatic hypertrophy might be prevented. During the past summer, at the Philadelphia General Hospital, with the collaboration of Drs. Leonard G. Rowntree and Fielding O. Lewis, an application of this procedure was attempted. There may be great possibilities in the future for preventing prostatic hypertrophy by interference in the function of the pituitary.

That ablation of the genital organs has a distinct effect on prostatic hypertrophy has been proved for more than 40 years. In the early nineties, Dr. J. William White advocated orchidectomy in prostatic hypertrophy. Dr. E. P. McCullagh, of the Cleveland Clinic, has made a careful clinical study of a group of eunuchs, castration having been performed for various pathologic conditions. In every instance the prostate was small and atrophic.

Sir Robert Jones, in 1897, reported a case of a man age 67, who had complete urinary obstruction produced by prostatic hypertrophy. The scrotum was covered by herpes. The testes were removed 4 months later and 2 weeks after the operation the prostate had sensibly diminished in firmness and size. There was less dysuria and the patient was able to dispense with the use of the catheter. Examination of the prostate one year later revealed an organ only one-half its original size.

In conclusion, there is a widely accepted view at the present time that the growth and activities of the male sexual apparatus in its entirety is the result of the activity and harmonious coöperation of the endocrine secretions. It has been demonstrated that the action of these secretions is very materially interfered with by embryologic defects and by pathologic conditions, caused by infections which lead to the unfortunate results accruing from dysfunction of the endocrine system.

— 315 South Seventeenth Street.

ABSTRACT OF DISCUSSION

ALEXANDER RANDALL (Philadelphia): My first contact with a true endocrine story was in the days when I was a medical student and heard Osler present that

classic group of cases of his in which 6 children born to be drooling idiots had been transformed into brilliant normal children by the administration of thyroid extract. Osler in unusual enthusiasm (because he was a conservative), ended his remarks in the demonstration of these cases by saying: "Truly it seems as though the age of miracles is still with us!" My second contact came with hearing Howard Kelly recount a case in which a sterile woman had an ovary transplantation. He reported it because the woman was pregnant.

Enough evidence exists for us to say emphatically that there are endocrine functions of vital importance that will be under our power when we are able completely to unravel their secrets.

Our position is almost parallel with what was probably the feeling in medical meetings during the early days when bacteriology was being established. In the 80's, verbal fights went on, there were believers and disbelievers, and proofs and disproofs of what bacteriology was and what it could do. Today we can see how fundamentally that subject changed the whole aspect of medicine and the whole realm of therapy. Today we are in the midst of a similar change and if we could only go ahead for 10 or 15 years and then evaluate what we know of this subject we will realize that we are living today during a fundamental change of our attitude towards a great many and some very vitally important conditions in medicine and surgery.

We have all followed the literature, and, as Dr. Kinney has pointed out, through a period when, particularly with the endocrinology of the sex function, we have been more or less disappointed. We have gone through a period in which ill-guided enthusiasts have run away with the idea of transplantations, particularly with the notion of so-called sexual rejuvenation. They are not true scientists, have been unfair to science in the conclusions they have drawn, and they have been unfair to their patients. Today true scientists are deep in the problem and exceedingly important facts are being unfolded.

As I see it, it is leading down one or two roads. The first is the effect that we might be able to produce in persons, in whom congenital dysfunction or congenital hypofunction exists; in those who have not developed normally. Dr. Kinney referred to the cases of hypogonadism as he had seen them, particularly in the male. There is something deficient as a cretin is deficient. All we need today is the key to open that lock to walk into the sunshine with that individual. The McCullaghs are working with androten and it has been my privilege to use some of it. We have used it in a patient over age 20, presenting the picture of typical hypogonadism; he has had 16 injections under McCullagh's dosage and guidance and we cannot honestly and clinically see any progress. We do not know the whole story. Nevertheless, that is one line along which we must progress and when we do, we will undoubtedly be able to improve on nature, where normal development has been arrested.

The second road leads us into the study and control of conditions dependent upon symptoms that arise from hyperfunction of endocrine glands. Parathyroidectomy in bone tumor, suppression of ovarian function in endometriomata, and the control of exophthalmic goiter, are examples of this group.

We visualize one other road. It is theory, but nevertheless when we recall that evidence of endocrine control in case of abnormal developmental trouble, in some cases hypotrophic and in others hypertrophic; in which we have pathologic conditions in which tissues undergo benign but nevertheless abnormal morbid hypertrophic

growth, are we not stepping very close to the question of why we have malignant cellular proliferation? It is not going too far to think of the relationship that might be uncovered almost any time between dysfunction of endocrine character and malignant disease.

MICHAEL A. BURNS (Philadelphia): Observations leave no doubt that the internal secretion of the sex glands is one of the physiologic conditions of the characteristic psychosexual behavior in the human species. It should not be forgotten also that the influence of external factors on the sexual behavior attains in man the highest degree observed in the animal kingdom. There is in the psychosexual behavior of man almost unlimited variation. Every epoch, every social class, every profession, and even every individual has a characteristic sexuality very different from that of others. The conditions determining the psychosexual behavior of man relate not only to a certain type of structure of the nervous system and to the hormones of the sex glands, but also to the whole complex designated under the terms "culture" or "civilization." We must admit that the psychosexual behavior may be very different even if the physiologic basis is the same.

Many authors in recent years have adopted the view that the sex characters depend in reality not only on the sex glands, but on the whole internal secretory system. There can be no development of sex characters without the other organs of internal secretion participating; all these glands are influenced by the internal secretion of the sexual glands, and the latter are influenced by the former. No doubt these interrelations between the endocrine glands are of the greatest importance in relation to the development of the sex characters.

The subject of endocrine dysfunction in male sexual disorders is so tremendous that one hesitates to attempt discussing it for fear of creating a large monograph. Definite points to be brought out are: First, no one could begin a discussion of endocrine dysfunctions without accepting the pituitary gland as an important factor in the development and maintenance of the gonad function. This aspect must be a vital one because lack of development of the essential sex characteristics may be purely of pituitary origin. This gonadal dysfunction is of an organic nature, but one of the important fields in gonadal dysfunction belongs to the neurotic group, *i.e.*, the neurasthenias, the psychasthenias—in other words—the "fatigue neuroses." The whole problem must be approached from two angles: First, the organic, in which we consider the endocrine system, especially the pituitary and adrenal glands; and second, the functional aspect, which consists of the neuropathic disorders including the neuropsychiatric group: the psychasthenias, the neurasthenias, and the fatigue neuroses.

Dr. Kinney has covered the organic group so thoroughly that my interest in his presentation lies chiefly in the neuropsychiatric point of view of dysfunctions of the sexual glands. Numerous investigators have touched more or less on the neuropsychiatric side of this problem, and have remarked that the adrenal and thyroid in many cases weighed less among the insane, especially in those patients with manic depressive psychoses and dementia precox. Since no definite pathology has been found for these two psychotic states, we cannot accept as a definite causative factor in these diseases deficiency of the adrenal and thyroid glands. Further research will have to be made along such lines before these mental disorders can be grouped with the organic psychoses.

Wechsler has been one of the few who have given better pictures of the mental side, but even his article on the psychoneuroses and internal secretions is more of a suggestion than a thorough study. We know, however, that a very definite symptom in the neurasthenias and sexual psychasthenias is the marked interference with the sex function. In this functional group there is a neurosis characterized by phobias, obsessions, morbid doubts, impulsions, repressions, feelings of insufficiency, nervous tension, and anxiety, and in many cases the sex function is the predominating obsession. It is my opinion that environment plays an important rôle in such cases. One can scarcely expect an active and normal sex life in a physically and mentally tired individual who, in addition to his overtired nervous state, is repressed by an unpleasant environment in which he is distracted by economic or domestic problems.

It is particularly in this group, in which no distinct glandular deterioration has taken place, that there is such a tremendous field for the effective use of psychotherapy in improving the gonadal function. In patients of this type the entire physical system, including the internal secretions, is under par, yet there is no definite pathology in the glandular make-up. Therefore, more attention must be given to the functional side of the picture. In hypopituitary and hypo-adrenal conditions there is a definite interference in gonadal function, but much more consideration should be al-

lotted to the psychoneurotic and his environmental situation to bring about a normal sex life. Through rest, physical exercise, forced feeding, removal of economic and domestic difficulties, a change of environment, and a gaining of confidence, the hypogonadal function can very often be restored to normal.

Repression caused by environment is another important external factor in psychosexual behavior. In this connection let me cite the case of a student, age 21, who had been in a divinity school for several years. Although a good student and apparently interested in his work, he suffered from general lassitude and peculiar sexual obsessions. When it was pointed out to this young man that he probably had chosen the wrong vocation and was situated in an environment which repressed his psychic personality, he was influenced to leave the divinity school. At present, although he is not married, he holds a position in which he is interested, is more active, has a keener mind, his sexual obsessions have disappeared, and he is looking forward in the near future to making a happy marriage and establishing a family of his own. This illustrates clearly the external manifestations in gonadal disturbances in individuals who are not suffering from definite glandular dysfunction. There must be a tremendous number of cases of this sort which would be benefited by a change in environment.

FUNCTIONAL DISORDERS OF THE COLON*

H. L. ROCKUS, M.D., AND J. H. WILLARD, M.D., PHILADELPHIA

Symptoms of abnormal function of the colon account for a greater number of visits to the gastro-enterologic internist than any other clinical syndrome. Nonorganic colonic disorders were present in approximately 25 per cent of 4000 cases reported by Spriggs; 30 per cent of 3000 admissions analyzed by Sara Jordan and Kieffer; and 39 per cent of 3000 patients surveyed by Kantor. In reviewing 1000 consecutive office case records, we found that a primary diagnosis of some type of functional colonic disorder had been made in 462 cases or 46 per cent. In spite of this very high incidence of functional colonic abnormalities many physicians have no clear conception of their character, classification, and management. One reason has been recently emphasized by Stengel¹ who states: "Internal medicine—still labors too greatly under the domination of the school of pathologic anatomy," and "The physician of today is still obsessed with the feeling that the discovery of an anatomic lesion and the naming of a disease is the end of his diagnostic labors." Contact with interns from many of our leading medical schools indicates that even today too little attention is devoted to the recognition and management of symptoms de-

pendent upon functional derangement of the gastro-intestinal tract and particularly of the colon. It is entirely possible that many teachers may not appreciate the frequent occurrence of functional disorders of the colon in office practice. Naturally most sufferers of this type are not hospitalized unless they are admitted for operation with the erroneous diagnosis of organic disease. Another reason for this lack of knowledge is the difficulty and confusion which surrounds any attempt to classify these functional states.

The initial step in classification must be primarily dependent upon the presence of a symptom which can be attributed to colonic dysfunction, such as constipation, diarrhea, alternating constipation and diarrhea, mucous discharge, or abdominal pain related to colon function. Then disease of the organ under suspicion must be excluded by appropriate studies including physical examination, analysis of stools for blood, pus, and parasites, proctosigmoidoscopy, rectal and roentgenologic examinations. In this way neoplasms, tuberculosis, dysentery, ulcerative colitis, diverticulosis, polyposis, and obstruction are ruled out. Usually a diagnosis of organic disease of the colon can be made without difficulty, although a prolonged period of observation and

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repeated studies will at times be necessary. After elimination of organic disease of the colon the third step in the orientation and classification of the nature of the colonic disorder is the exclusion of organic disease elsewhere in the body, particularly in the abdomen, capable of reflexly affecting the autonomic nerve supply to the bowel or of disturbing bowel function through a toxic influence. Diseases of this type will usually be suspected because of the presence of symptoms or signs related to the system involved. Abdominal disorders most frequently responsible for colonic dysfunction are peptic ulcer, pelvic inflammatory disease, tumors, kidney disease (renal colic and uremia), achlorhydria and gastritis, gallbladder disease, and pancreatic dysfunction. The presence of diarrhea unaccompanied by abdominal pain or the discharge of mucus, pus, or blood from the rectum is a definite indication for a gastric analysis to rule out achlorhydria and gastrogenous diarrhea. Lesions of the central nervous system and constitutional maladies, such as sprue, pellagra, tuberculosis, and syphilis, *etc.*, may have to be considered.

All colonic disorders not dependent on organic, reflex, or toxic causes are usually classified as functional although many of these are not, strictly speaking, purely functional or nervous in origin. Many cases of simple constipation, termed dyschesia by Hurst, do not develop symptoms until the mucosa and motor mechanism of the bowel have been irritated by laxatives, enemas, or irrigations. Cases of this type are usually termed functional. Any attempt at classification of purely functional derangements of the colon is difficult because of the frequent existence of several possible etiologic factors. For example, not uncommonly the symptoms and signs point to a profound disturbance of the autonomic nervous system suggesting the so-called irritable or unstable colon as the primary diagnosis. The same individual may show marked redundancy or coloptosis, or catarrhal changes resulting from prolonged use of purgatives, making it impossible to decide which factor is primary and of most significance. Bearing in mind the inaccuracies inherent in any classification, we submit the following because it seems the most logical and practical at the present time.

1. *Colonic Neuroses* (Irritable or Unstable Colon).

a. Motor neurosis—disturbance of tone and rhythm (spastic colon).

b. Secretory neurosis—neurogenic mucous "colitis."

c. Mixed neurosis—spasm and "neurogenic" mucus.

d. Nervous diarrhea—nonorganic hypermotility.

2. *So-called Anomalies or Anatomical Abnormalities of the Colon.*

a. Colonic redundancies (loops, reduplications).

b. Coloptosis including low cecum.

3. *True Anomalies or Embryonic Abnormalities.*

a. Anomalies of Rotation: (i) Complete failure to rotate—left-sided colon. (ii) Incomplete rotation—high cecum.

b. Anomalies of Fixation: Lack of attachment of descending or ascending colon.

4. *Simple Constipation.*

True anomalies are not often mentioned among the organic diseases of the colon and in many instances they are either unassociated with symptoms or their clinical importance is questionable. Consequently it has been deemed wise to include them in this discussion.

I. IRRITABLE OR UNSTABLE COLON

This type of colon dysfunction is generally conceded to be the most common. Although originally described by John Howship in 1830, only during the past decade it has received the attention which its importance justifies, largely because of the contributions of Jordan and Kieffer, Spriggs, Kantor, Hurst, Ryle, and Eggleston. "Irritable" or "unstable" is a suitable name to describe this condition which comprises those cases previously called spastic colitis, spastic colon, chronic colonospasm, and tonic hardening of the colon. The wisdom of substituting the term "irritable" or "unstable" for spasm is obvious if it is realized that spasm may not be manifest in every case or constant in any case. The proximal colon may appear atonic while the distal portion exhibits an extreme state of spasticity. Rarely the picture of atony may alternate with that of spastic irritability in the same bowel at different times. According to Jordan and Kieffer² all types of colonic disorder which seem basically due to "a disturbance of tone and irritability of the musculoneural tissue of the bowel" may be classified as "irritable colon." Almost all observers are agreed that this lack of coördinated function of the various segments of the colon results from an instability of the vegetative nervous system. There is considerable evidence to suggest that an obscure endocrinopathy may be responsible for the autonomic imbalance.

It is well known that thyroid disease is frequently responsible for colonic irritability. Eggles-ton records the frequent finding of low basal metabolic rates and M. D. Levy found the basal metabolism ranging from minus 10 to 40 in 109 of 300 patients. Many patients with the irritable colon syndrome likewise complain of symptoms dependent upon ovarian dysfunction. Other less manifest endocrinopathies may be responsible for colonic malfunction. Allergic symptoms may appear simultaneously with those of the unstable colon and many feel that allergy is often responsible for irritability of the colon. Some authors are inclined to consider a primary bowel infection of considerable etiologic significance, mentioning patients with symptoms of colonic irritability which have persisted for years after an attack of dysentery or of an acute infectious disease. We have observed this sequela very rarely except in individuals who have previously shown other manifestations of vegetative nervous system instability. Another possible cause of the irritable colon syndrome is an impoverishment of the nerve supply resulting from an avitaminosis, faulty diet, or anemia. Practically, these factors can be held responsible for comparatively few cases in our experience.

We have recently analyzed 50 consecutive case records of patients whose primary diagnosis was irritable colon. The statistics quoted refer to this series. Young and middle-aged adults seem more prone to develop the condition (86 per cent younger than age 50). It is more frequent in the female sex (58 per cent). There seems to be a racial predisposition among Jewish and Southern European peoples; it is exceedingly rare in the pure Negro. An inherited tendency seems to be present in certain families. Most patients may be described as intellectual, neurotic, or "tense," and nervous manifestations of some type are almost universally encountered. Neurasthenia, or the fatigue syndrome, a mild manic-depressive cycle, insomnia, introspection, and emotionalism constitute the most frequently observed nervous phenomena. The "irritable" colon symptoms usually occur in attacks or cycles, initiated frequently by nervous strain, trauma, or emotional upset (86 per cent) and less often by purgation, physical exhaustion, onset of menopause, exposure to cold, roughage in the diet, allergic states, and possibly by raw milk (Kantor) or excessive smoking. The importance of the nervous factor is further stressed by the frequent history of amelioration of symptoms by rest, relaxation, change of surroundings or a vacation. Colonic dysfunction was manifested by constipation (40 per cent), diarrhea (16 per cent), alternating constipation and diarrhea (32 per cent), and mucous dis-

charge (42 per cent). The importance of stool inspection is obvious. The formed stools were of abnormal shape in 72 per cent of cases, being scybalous (22 per cent), pencil-shaped (24 per cent), either scybalous or pencil-shaped (24 per cent), or flat (2 per cent). Abdominal discomfort was noted in 96 per cent of cases. It may be crampy or griping in character (42 per cent) but is often described as a sense of pressure or weight, or as an aching sensation. The relief afforded by defecation, expulsion of flatus, or the taking of an enema is noteworthy (66 per cent). The pain may be general, migratory, or epigastric but is usually confined to the lower quadrants, more often to the lower left quadrant. The pain may be very severe. If centered about the lower right quadrant an erroneous diagnosis of appendicitis is not infrequently made. Twenty-two per cent of both Kantor's and Eggleston's series had been subjected to appendectomy, usually without relief. Several writers (Ryle, Spriggs, Smith *et al.*, Jordan, Kantor) have stressed the concomitant occurrence of an epigastric syndrome having a rhythm not distinguishable from duodenal ulcer (28 per cent in our series). The observation that pyloroduodenal and colonic irritability are apt to occur in the same individual lends support to the hypothesis of an underlying disturbance of the autonomic nervous system. A slowing up of the fecal current with light-sided stasis is capable, according to Alvarez, of slowing up gastric emptying. In our cases the independent occurrence of the duodenal ulcer syndrome often suggested a primary focal point of irritation in the duodenum as well as in the colon rather than a reflex gastric disturbance secondary to colonic dysfunction. Many indications of autonomic instability are usually present and so-called toxic symptoms, such as dizziness, headache, neuralgia, and nausea are not infrequent.

Proctosigmoidoscopy is of importance to eliminate organic disease. The instrument is difficult to introduce into the sigmoid in many instances because of the spasm which may be associated with pain quite similar to a type of discomfort previously described by the patient. The membrane may glisten because of the excessive secretion of mucus or it may be exceedingly dry. Catarrhal inflammation of the mucosa is rarely seen. Not infrequently scybalous pellets are encountered in the lower sigmoid.

The colon should be studied roentgenologically after barium is administered by mouth as well as following the injection of barium by rectum, and in doubtful cases supplemented by the double contrast barium and air enema method. Obviously such a complete study may be impossible for economic reasons. Kantor feels that the nine-

hour film is of most value in the diagnosis of the "irritable" colon. The least expensive and the most informative method of studying the colon in our experience is by the introduction of an opaque enema. This procedure is most essential in eliminating organic lesions of the colon but an interpretation of the exact functional habits of the large intestine by this method may be misleading. An experienced roentgenologist can accurately interpret abnormalities of tone and motility if the same technic is always employed. In some cases of irritable colon, just as in ulcerative colitis, the barium will be observed to pass into the colon very rapidly, indicating extreme irritability. Thirty-four per cent of our patients experienced severe pain during the introduction of the enema, in many instances quite similar to one of the major symptoms. The silhouette of the filled colon will obviously be variable in different cases and not infrequently change from time to time in the same patient. It can be altered by the addition of more barium or by the regurgitation of barium into the ileum. The technic used by Widmann, of taking a film of the patient lying down with the colon filled, and standing after evacuation, is informative and economical. The films taken after evacuation may show a string-sign suggesting mucus or a pattern indicating polyposis or diverticulosis, which was not visible on the filled colon film. The standing film registers the degree of ptosis.

Bearing in mind the variation in the colonic silhouette depending upon the degree of distention of the bowel, an inspection of a series of films on 50 cases of irritable colon revealed certain departures from the normal in many instances. *Abnormal narrowing* of some segment of the colon, usually the left, was noted in 31 cases. In 11 with narrowing of the left colon or sigmoid, varying degrees of dilatation of the ascending colon were noted. Another common finding was *segmentive or zonal spasm* (29 cases), more frequently noted in the pelvic colon and sigmoid. Extreme degrees of zonal spasm confined to the cecum or ascending colon are rare. A deep-cutting contracture of spastic nature confined to the proximal ascending colon is usually dependent upon some type of local disease in the vicinity, such as tuberculosis, malignancy, appendicitis, or some mucosal disease. Fifteen cases showed the fine, shallow, irregularly arranged saw-tooth type of colonic margin described by Spriggs and Marxer as *prediverticulosis*. In only one case in this series was dilatation of the entire colon encountered and it was so classified here because the history and symptomatology suggested a primary neuromuscular

colonic instability. In many cases long segments of colon present a picture of absent or very shallow haustrations which cannot be distinguished from areas of ulcerative colitis except that the bowel shows usually no actual shortening. Deep cutting haustral contractions, however, may be present on the 24- or 48-hour mouth meal films, indicating that the smooth appearance is not constant. Colons of all lengths were encountered. Seventeen were classified as long; 7, short; and the remainder, as of normal length. In 18 cases, redundancy of some part of the colon was considered to be quite marked. A considerable degree of coloptosis was noted in 13 cases.

II. NEUROGENIC MUCOUS COLITIS

Most American authors include this type of bowel neurosis with the cases of irritable colon just described. Others here and abroad keep the cases sharply segregated from the so-called spasmodic affections of the colon. Catarrhal or inflammatory changes in the mucous membrane were noted only in about 10 per cent of our cases of "mucous colitis" and could be attributed to the irritating influence of purgatives and enemas. We know of no proof to support the contention of some that catarrhal changes in the bowel mucosa are primarily responsible for the development of neurogenic mucous colitis. Pathogenetically there is very little justification for the distinction between mucous colitis and irritable colon. The discharge of clear noninflammatory mucus is apparently dependent upon the same disturbance of the nervous mechanism of the bowel which gives rise to spasticity. Many cases (42 per cent) of irritable colon, in which spasm is the dominant feature, discharge excessive amounts of clear mucus. The majority of cases of so-called mucous colitis show all the manifestations of extreme spasticity of the colon either preceding, during, or following the "mucous colic." Since spasticity and mucous discharge coexist in many instances, and the etiology, symptomatology, and management are identical in either condition, the wisdom of segregating these two types of bowel neuroses as distinct entities is decidedly doubtful. The principal distinction which we have noted is that the patients in whom mucous discharge is excessive exhibit more profound disturbances of the autonomic nervous system and are in a general way eminently more nervous than patients with spasm without mucus. This whole group of cases dependent upon disturbance of the vegetative nerve supply to the bowel might be classified as colonic neuroses, either motor (spasm) or secretory (mucus), or mixed (spasm and mucus). These

terms seem to us more acceptable but the terms "irritable" and "unstable" colon are expressive and rather generally used.

III. NERVOUS DIARRHEA

This affection is characterized by the passage of too frequent stools entirely free from mucus, pus, or blood without any pathology in the colon or elsewhere to account for it. The stools are usually of mushy or liquid consistency and are more apt to be passed after the ingestion of food or drink. Abdominal pain is usually absent. Gastrogenous diarrhea, which it closely resembles, is eliminated by a gastric analysis. The condition is comparatively rare, occurring in patients of nervous temperament with other manifestations of instability of the vegetative nervous system. The condition is deserving only of segregation from the usual type of irritable colon if evidences of spasm are absent and mucus is not passed from the colon. The outstanding feature is gastro-intestinal hypermotility. That the gastrocolic reflex is triggerlike in its action is indicated by the frequent desire to defecate after eating. These patients often give a history of having 2 or 3 stools daily, usually after meals, since childhood. A real diarrhea, often explosive in its intensity, may follow some nervous shock or stress, or emotional upset. The effect of nervous tension on the activity of the colon in these patients is illustrated by the following case:

A young man who normally passed 2 or 3 stools daily was the star performer on his school football team during the practice and minor games but was a total loss to the team during the big games. He would develop a severe diarrhea about 24 hours preceding the event so that by the time the game began he was in a highly nervous and weakened condition. A wise coach, suspecting the reason, several days preceding the final and hardest game, told the boy that he would not play. He escaped his usual pre-game diarrhea, was in the starting line-up, and played splendidly.

IV. SO-CALLED ANOMALIES OR ANATOMIC ABNORMALITIES OF THE COLON

In normal individuals the colon varies tremendously in length, position, shape, and degree of mobility. For this reason great confusion exists concerning the clinical significance of the various types of anatomic abnormalities. The profession is indebted to Kantor for his pioneer exploration in this field. He is responsible for the first clear exposition of the possible clinical significance of the various anomalies discovered by roentgen study, and careful perusal of his papers is recommended to all who are interested. Kantor³ sums up the situation as follows: "Congenital anomalies may cause symptoms in all their owners some of the time, in some of their

owners all the time, but are under no obligation to cause symptoms in all their owners all the time." He feels that nature may compensate for their presence but that they predispose toward disorders of function if any nervous or physical debility supervenes. Many others doubt if any but the extreme anomalies are capable of producing symptoms since all types are commensurate with perfectly normal gastro-intestinal function, and proof is lacking that nervous and physical debility is not just as apt to cause symptoms of colonic dysfunction in the absence of the so-called anomalies.

An *abnormally long colon* causing kinks, loops, or sharp angulations was present in 19 per cent of Kantor's series of 1000 patients. We recorded its presence in 29 per cent of our series. It is more commonly encountered in the distal colon with special predilection for the pelvic colon. Constipation is usually marked and of long duration. An important observation stressed by Kantor is that the redundant pelvic colon is the usual cause of water being lost in the colon following an enema. Gaseous distress, manifested as flatulence, distention, borborygmus, excessive flatus, was frequent in Kantor's cases. Redundancy and distention of the splenic flexure is a frequent cause of cardiac embarrassment and precordial pain. This syndrome in a questionable "cardiac case" is a definite indication for roentgen study of the colon. Diarrhea is comparatively infrequent unless a catarrhal colitis has been induced by catharsis. Localized pain or discomfort dependent upon kinks and angulations or gas pocketing has been described in about half the patients (Kantor). Volvulus or twisting of the colon occurs only in individuals with redundant colon, according to Kantor and Curschmann.

To what extent the symptoms mentioned are due to redundancy it is impossible to state but it is only by careful statistical studies like those of Kantor that its clinical significance can be finally settled. The association of spasm and catarrhal or laxative colitis in many of our cases of redundancy, and the absence of redundancy in many individuals with spasm or catarrh who presented the same symptomatology cause us to feel that redundancy, *per se*, rarely causes symptoms unless extreme.

It is difficult to consider *low cecum* and *coloptosis* separately. The right colon naturally occupies a low position in practically all cases of general visceroptosis. It is prone to be relatively lower than any other part of the colon in these cases. Unless the cecum is fixed, there is a more or less definite relationship between its position and the habitus of the individual. Observations concerning the position of the cecum

are of value only if films taken with the patient recumbent and erect are compared. Kantor's views are somewhat at variance with our observations and he assigns a rather clear-cut clinical syndrome to "low cecum." He found it more common in the female sex and asthenic habitus. Vomiting is mentioned as the outstanding symptom and headache occurred frequently. Pain in the right side often ascribed to chronic appendicitis (20 per cent operated upon), and constipation complete the picture.

We are confronted with the problem of deciding how important the so-called low cecum is in the production of symptoms. The vomiting, for example, can be easily explained by other mechanisms. Since a congenital splanchnoptosis is often concomitant, a definite predisposition toward chronic intermittent arteriomesenteric occlusion of the duodenum is to be expected. In a series of cases of so-called duodenal ileus previously reported a right coloptosis was noted in 88 per cent. Vomiting is one of the most common symptoms and can readily be explained on a mechanical basis. Toxic headache is to be anticipated in duodenal stasis (40 per cent). Even in the absence of duodenal ileus many of the symptoms might be ascribed to the general visceroptosis of which low cecum is frequently but a small outpost in any army of offenders. There can be no question of the production of symptoms of colonic dysfunction by extreme ptosis since a therapeutic regimen directed toward the ptosis is often successful in the amelioration of these symptoms.

V. TRUE ANOMALIES OR EMBRYONAL ABNORMALITIES

This discussion will include only those anomalies compatible with life which are:

Anomalies of Rotation.—In early embryonal life the colon occupies the left abdomen and the small bowel is entirely on the right side. Very rarely the colon does not rotate and the ascending colon fails to migrate to the right side, giving rise to the uncommonly found left-sided colon. More often the migration of the colon is arrested, the cecum remaining in the subhepatic region, accounting for the so-called "high cecum." One gets the impression that this failure of complete descent of the colon, at times associated with redundancy of the pelvic colon, may actually account for the redundancy. The total length of the colon seems normal in some of these cases and the redundant loop in the pelvic colon does not seem longer than the distance which would be occupied by the ascending colon if it were in the correct position. Both Jordan and Kantor have noted the frequent association of ileal stasis with

high cecum. Kantor found that the incidence of ileal stasis varied inversely with the degree of descent of the cecum.

Anomalies of Fixation.—After descent of the cecum into the right iliac fossa the ascending and descending segments which were freely movable on a mesenteric attachment become fixed to the posterior parietal peritoneum, the cecum and sigmoid portions remaining unattached. Failure of adhesion of the descending colon is more commonly encountered than a freely movable right colon (Kantor). Redundancies of the ascending colon are due in many instances to this embryologic defect. The freely movable right colon with a long mesenteric attachment, rarely seen in man, is normally found in the cat (Batson). This anomaly, the mobile right colon, is of some clinical importance, predisposing this portion of the bowel to stasis and attacks of abdominal pain due to volvulus, kinking, or angulation simulating appendicitis. It likewise accounts for the unusual position in which the appendix is occasionally found at operation.

VI. SIMPLE COLON STASIS (CONSTIPATION)

Although the last type of functional colonic disorder to be discussed, simple constipation accounts for a very high percentage of patients seeking relief from colonic disorders. Into this category are placed all types of colon stasis which do not depend primarily upon organic disease, profound colonic irritability of nervous origin or the so-called anomalies. An understanding of the causes of simple constipation depends upon a knowledge of the physiology of defecation. Space does not permit reviewing it here. The interested reader is referred to Hurst's *Constipation and Allied Disorders*. A normal cycle of defecation depends upon the following conditions, any of which if disturbed may result in constipation:

- (1) An ample amount of residue and liquid in the diet.
- (2) A normally balanced autonomic nervous system with proper gastrocolic and intestinal reflexes, ample peristaltic response to normal stimulation, and normal tone of the anal sphincters.
- (3) Efficient smooth musculature in the intestinal wall.
- (4) A resistant pelvic floor (which is not infrequently impaired by pregnancy).
- (5) A rectal mucosa which remains sensitive to the entrance of feces notifying the individual of the desire to defecate.
- (6) A colonic passage which is not obstructed from within or pressed upon from without.
- (7) A diaphragm and abdominal wall sufficiently muscular to increase the intra-abdominal pressure during the act of defecation.

A disturbance of one or several of these units responsible for defecation may induce constipa-

tion. The most frequent cause is voluntary neglect of the bowels, the tendency of many persons throughout life to subjugate the call of the bowels for relief to the interests of convenience or expediency. The rectum was not intended as a reservoir for feces; the entrance of fecal matter into the normal rectum initiates an impulse which notifies the individual that the bowels should be emptied. Failure to defecate does not result in the feces passing back into the sigmoid. The fecal mass remains in the rectum and a second notification does not occur until fresh increments arrive, further distending the rectum. This state of affairs often repeated leads to a blunting of the nerve endings in the rectum and finally a complete loss of the desire to defecate. The use of irritating laxatives and of enemas or irrigations further distending the bowels renders the constipation more obstinate and the individual more dependent upon artificial aids. Abdominal, reflex, and toxic symptoms, often associated with this type of constipation, rarely occur until the laxative or enema habit has been established. Various etiologic factors other than simple dyschesia (Hurst) may co-exist in some individuals, such as spasm of the pelvic colon, extreme redundancy, visceroptosis, inefficiency of the levator ani, spasm of the anal sphincter caused by a local anal lesion, atony of the abdominal or intestinal muscles, improper diet, or a deficiency of stomach and intestinal juices. These concomitant abnormalities may be ascertained by a complete survey including a careful bowel and dietetic history, physical examination, digital rectal examination, proctosigmoidoscopy, and roentgen study.

Diagnosis of Simple Constipation.—The usual history is that of long-standing constipation following neglect of the bowels, a loss of normal desire to defecate without laxatives, and the onset of abdominal, reflex, or toxic symptoms after using laxatives or enemas for some time. A large dilated rectum usually containing feces is noted on digital examination. Proctosigmoidoscopy may show nothing but rectal dilatation but often reveals a definite catarrhal proctosigmoiditis and in 5 per cent of cases of colon stasis, melanosis coli, which we feel is due to the prolonged use of the anthracene laxatives. The roentgen study may show nothing but rectal dilatation though often signs of irritability caused by a secondary colitis are noted.

ANALYSIS OF 100 CASES OF FUNCTIONAL COLONIC DISORDERS

One hundred consecutive office case records with a primary diagnosis of some type of colonic

dysfunction were submitted to a critical review. The minimal diagnostic survey in each case included a complete history and physical examination, digital examination of the rectum, urine and fecal analysis, proctoscopy, and barium enema. In the majority a complete gastro-intestinal roentgen study was carried out. The cases can be roughly divided into two principal groups: (1) The bowel neuroses and (2) nonneurogenic types of dysfunction of which simple colon stasis constitutes the vast majority. Sixty per cent of the cases were classified as primary bowel neuroses or irritable or unstable colon. The criteria or the establishment of this diagnosis has already been discussed. These cases were further subdivided as follows:

- Motor neurosis (spastic colon), 39 cases.
- Secretory neurosis (pure mucous colitis), 1 case.
- Mixed neurosis (spasm and mucous "colitis"), 17 cases.
- Nervous diarrhea (simple hypermotility), 3 cases.

In the remaining 40 cases nervous instability of the colon was not considered to be of major significance. The majority gave a long history of continuous constipation attributed in many instances to neglect of the bowels. Predisposing, aggravating, or actual causes for the bowel disorder, such as ptosis, redundancies, catarrh, and anomalies were encountered frequently and the significance of each factor in the individual case was impossible of determination.

The relative incidence of certain concomitant findings in the neuroses and in the nonneurogenic functional disorders will be seen in Table I. It is worthy of note that there is a relatively higher incidence of coloptosis and dilatation of the colon, possible causes for colonic dysfunction, in the nonneurogenic disorders. The other striking difference noted between the two groups is the infrequent finding of catarrhal proctitis and melanosis in the patients with the irritable colon syndrome as compared with the other group. The explanation of this difference is obvious if we assume that catarrhal changes are

TABLE I.—Incidence of Concomitant Findings in Primary Irritable Colon and Simple Colon Stasis

	Irritable Colon		Nonneurogenic Disorders	
	60 Cases		40 Cases	
	Number	Per Cent	Number	Per Cent
1. Ptosis	19	31.7	26	65.0
2. Redundancy	18	30.0	11	27.5
3. Extreme atony (dilatation)	1	1.7	12	30.0
4. Catarrhal proetitis	2	3.3	14	35.0
5. Melanosis	0	0	4	10.0
6. Aehyilia gastrica ..	5	8.3	1	2.5

TABLE II.—Incidence of Symptoms in Irritable Colon (Colonic Neurosis) and in Nonneurogenic Disorders

	Irritable Colon		Nonneurogenic Disorders	
	60 Cases		40 Cases	
	Number	Per Cent	Number	Per Cent
Abdominal cramps . . .	21	35	5	12.5
Abdominal pain	20	33	11	27.5
Duodenal ulcer syndrome	10	16.6	1	2.5
Postprandial dyspepsia	24	40	14	35
Flatulent distention . . .	15	25	10	25
"Cardiac" syndrome . .	6	10	7	17.5
Nausea	5	8.3	9	22.2
Vomiting	6	10	4	10.0
Nervousness	16	26.6	9	22.2
Weakness or fatigue . .	19	31.7	16	40
Headache	13	21.7	16	40
Dizziness	12	20	6	15
Constipation	32	53.3	34	85
Diarrhea	11	18.3	1	2.5
Alternating constipation and diarrhea . .	8	13.3	3	7.5

dependent upon the frequent use of certain laxatives and enemas. The patients with irritable colon rarely need artificial aids to defecation

constantly, since the symptoms are usually intermittent. The incidence of redundancy was the same in both groups and does not differ materially from the frequency of this condition in otherwise normal individuals.

The occurrence of the more important symptoms has been tabulated in Table II. In the group of cases dependent upon primary neuromuscular instability of the colon, abdominal cramps, abdominal pain, and the duodenal ulcer syndrome occupy a prominent place in the symptomatology. Diarrhea, alone and in alternation with constipation, was more frequent in the irritable colon group. The difference in the incidence of the so-called toxic manifestations and of gaseous indigestion in the two groups was not noteworthy.

250 South Eighteenth Street,
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EPIGASTRIC PAIN*

An Analysis of 311 Cases

JOHN T. EADS, M.D., PHILADELPHIA

While doing gastro-intestinal studies on patients in the Jefferson Hospital I was impressed by the number complaining of epigastric pain. This common complaint was the chief cause of a desire for medical attention. In more than 1000 cases studied, abdominal pain was present as one of the complaints in 850 cases. Of these 850 cases, abdominal pain or discomfort was the chief complaint in 600 cases. In these 600 cases, the pain was localized to the epigastrium in 311 patients.

The variety of lesions capable of causing epigastric discomfort severe enough to warrant medical attention is interesting. The comparison of provisional or clinical diagnoses with the final diagnosis as made at the operating table, necropsy room, or by a culmination of special studies is also of extreme interest.

There are many lesions, both extra-abdominal and intra-abdominal, capable of giving symptoms referable to the upper abdomen or epigastrium. We have been taught the symptom syndrome of these lesions. There are, however, undoubtedly lesions giving symptoms and physical signs which

simulate those ordinarily considered as typical of some other lesion. Of interest in these 311 cases of epigastric pain were such errors in the clinical diagnosis based on history and physical findings.

It is not my purpose to underestimate the value of a painstaking, careful history and physical examination. Unquestionably, if such a history and physical examination are done the percentage of error in clinical diagnoses as compared to the final diagnoses is much less. This is aptly demonstrated by the higher percentage of error observed in those clinical diagnoses made in the outpatient departments in which the histories are not so complete and accurate as those taken in the wards. The value of a careful history and physical examination cannot be overemphasized.

The multiplicity of lesions capable of causing epigastric discomfort is known to us. The mechanism of the production of pain in the upper abdomen by lesions in a comparatively remote site is by no means entirely clear.

Morley has perhaps as good an explanation of abdominal pain as any of the investigators. He believes in a dual type of mechanism and describes two types of pain—visceral and parietal.

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

The former is a type of pain low in sensibility, poorly localized by the individual, and frequently felt where the sensibility is higher, namely, in the region of the solar plexus. Sympathetic radiation probably accounts for this. Parietal pain on the other hand is well localized and due to local irritation of the parietal peritoneum.

impressed me. There were apparently clear cut cases which were so diagnosed and yet turned out to be due to some other lesion. A careful history and physical examination is most important but, in these lesions, supposedly of digestive origin, the study must be supplemented in many instances by special laboratory and diag-

TABLE I.—*Clinical and Final Diagnoses Compared*

Confirmed Diagnoses	Clinical Diagnoses						
	No. cases	Peptic ulcer	Gall-bladder disease	Cancer	Appendix	Colitis	Cardiac
Biliary disease	84	10	30	4	4	0	6
Duodenal ulcers	60	28	20	8	2	2	0
Gastric ulcers	15	4	5	2	0	2	2
Cardiac lesions	47	10	12	5	0	0	20
Malignancy	40	10	5	19	0	0	6
Appendicitis	20	5	8	0	6	0	1
Colitis	10	3	0	0	3	4	0

In these cases in which epigastric discomfort was the chief complaint a very high percentage of organic pathology held accountable was demonstrated. In 311 cases, 296 were found to be due to some definite lesion. This is unusual, for in considering the other cases in which abdominal pain was one of the complaints, the percentage of organic pathology is much lower. These were all hospitalized patients or outpatients in whom the symptoms were severe, in most instances of fairly long duration, with a tendency toward chronicity. Most of these had been under medical care prior to hospitalization. Many of these patients had several studies over a period of some years with negative results. All had recurrent symptoms with a progressively increasing severity.

nostic procedures. This may not be true in lesions elsewhere in the body, but it is true of those affecting the gastro-intestinal tract. Often it is practically impossible to distinguish between gall-bladder pathology and peptic ulcer, as an example, from history and physical findings unless the findings are so clear cut that there is no doubt in the examiner's mind. In the treatment of these various lesions an absolutely accurate diagnosis is important else the treatment is often of no value or entirely contraindicated. This explains to some extent possibly why the usual treatment of many gastro-intestinal cases by the symptomatic method is discouraging.

We have grouped these 311 cases with the chief complaint of epigastric pain into various

TABLE II.—*Sex and Special Symptoms*

Lesions	Men	Women	Body build		Pain and Meals	Night pain	Average duration symptoms	Gastric acidity		Shoulder pain	Loss of weight
			Asthenic	+ Sthenic				+	—		
Biliary disease	34	50	0	60	40	16	5 yrs.	14	34	64	16
Duodenal ulcer	45	15	45	..	46	44	7 "	50	..	6	57
Gastric ulcer	4	11	10	..	11	8	5 "	9	..	1	13
Cardiac	32	15	4	30	30	4	2 "	5	6	3	22
Malignancy	26	14	29	6	37	10	1 1/2 "	2	33	3	38
Appendicitis	12	8	8	8	5	0	2 1/2 "	4	1	1	8
Colitis	7	3	6	2	3	1	3 "	2	1	0	5

These cases show the significance of persistent upper abdominal symptoms. Their incipency may be rather mild or insignificant, but the tendency toward chronicity and increasing severity points to organic cause.

The difficulty in distinguishing between the lesions from a purely historical and physical point of view is rather interesting. Though taught the various significant points in differential diagnosis between these various lesions, the relatively high incidence of error in the clinical diagnoses

groups according to age, sex, length of history, type of pain, body build, gastric acidity, relationship to meals, clinical and final diagnoses. The following tables show these several interesting points. Many of these lesions are typical of those we have learned, others are interesting because they show characteristics usually found in lesions other than the ones considered capable of giving such a syndrome.

As would be expected, the most common cause of epigastric distress in this series of patients is

some lesion of the gastro-intestinal tract. In Table I the causes are outlined in order of their occurrence with the provisional and the confirmed diagnoses. The number of cardiac cases in this series is unusual and is a higher percentage than most investigators report.

There were 20 cases not included in the foregoing table which might be grouped under mis-

coming to necropsy are noted. Of interest is the high percentage of diagnoses made correctly by the roentgenologic studies.

CONCLUSIONS

1. In this series, there is an unusually high percentage of organic disease found responsible for epigastric distress. This is probably because

TABLE III.—Age Studies, Operated Cases, Necropsies

Lesions	No. of Cases	Age groups					Roentgen rays and studies positive	No. of cases operated	Postmortem
		20-30	30-40	40-50	50-60	60-70			
Biliary disease ...	84	5	25	44	9	2	78	48	4
Duodenal ulcer ...	60	10	29	14	6	1	54	42	3
Gastric ulcer	15	4	7	3	1	0	15	12	3
Cardiac lesions ...	47	0	2	18	23	4	47	2	11
Malignancy	40	3	6	11	15	5	38	28	15
Appendicitis	20	9	8	3	0	0	12	17	0
Colitis	10	4	4	1	1	0	9	2	1

cellaneous cases. All these gave upper abdominal symptoms. They ranged from 3 cases of renal calculi to several cases of postoperative adhesions. Almost any lesion in the abdomen is capable of giving upper abdominal symptoms.

All these cases were studied carefully. In those cases in which the provisional diagnosis does not agree with the confirmed diagnosis the differential point was demonstrated by these special studies.

In Table II are given some of the interesting characteristics of the individual groups of lesions. Here will be seen conformity to textbook pictures in some instances with a wide variation in others. Such variations make for a difficult diagnosis.

In Table III the age incidence, roentgenologic findings, the number of operated cases, and those

with few exceptions the cases studied were long standing ones with a severity of symptoms and a marked tendency to chronicity.

2. The difficulty in differential diagnosis from history and physical examination alone is shown in many cases.

3. The chief cause of epigastric pain in this series of cases is gallbladder pathology, with duodenal ulcer second.

4. The multiplicity of lesions, both intra- and extra-abdominal, capable of giving epigastric distress, is demonstrated.

5. The value of a careful and accurate history and physical examination cannot be overemphasized but that in many instances such a careful survey must be supplemented by special procedures if an accurate diagnosis is to be made.

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EWING'S SARCOMA OF THE MASTOID*

Report of a Case

J. LANDIS ZIMMERMAN, M.D., HARRISBURG, PA.

Ewing's endothelial sarcoma is a malignant tumor arising from the reticulo-endothelial elements of bone. Expressing, as it does a bone marrow origin with endothelial characteristics, the name sets it apart from all other myelomas, and from osteogenic sarcomas. This tumor occurs most frequently in the shafts of the long bones, rarely the scapulæ, vertebrae, and skull, and most rarely in the temporal bone. In a report of 54 cases, Connor makes no mention of any arising in the mastoid. Copeland and Geschickter in a review of 60 cases report only one

involving the mastoid primarily; the patient was subjected to an exploratory operation and died in 6 months. Alsenberg, Christinneck, Deuch, Hang, Jumod, Green, Kuhn, Hartmann, and Lutz have each reported a single case. Death was the final result in all. A search of the literature reveals 47 cases of primary sarcoma of the mastoid but of these only 9 can be classed as Ewing's endothelial sarcoma. There are several more of these 47 cases from foreign sources, which from a histologic description might be included, but their nomenclature is different. There are no cases recorded in the registry of bone sarcomas of the American College of Sur-

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

geons. We can, therefore, say that Ewing's endothelial sarcoma of the mastoid is an extremely rare lesion. The tumor occurs principally in youth, is characterized by pain, swelling, and dysfunction, and is quite radiosensitive. Ewing mentions this fact as a point in differential diagnosis from other forms of sarcoma of the bone.

CASE REPORT

B. S., white, aged 5, was brought to the Harrisburg Hospital ear dispensary, complaining of pain in the left ear, purulent discharge, with swelling behind the ear. This trouble dated back 3 months, when the only complaint was transient pain in the left ear. Except for an occasional instillation of warm olive oil, nothing was done. About 6 weeks later, the mother noticed a slight watery discharge from the left ear. A physician advised boric acid irrigations. The pains increased in severity but were still transient in character. A few weeks later the mother noticed a slight, painless swelling behind the ear. A few days before admission a small mass was noticed in the ear canal, making irrigation difficult. The pains were now more severe and worse at night. Appetite and general condition were excellent.

The family history was entirely negative.

Had been a healthy, breast-fed infant with no serious disease in infancy. No previous ear trouble. Had several attacks of tonsillitis in the past few years. One attack of influenza in 1930 and chickenpox in 1931.

Upon examination in the dispensary, a soft, moist, smooth, grayish mass was noted in the left external auditory canal. A small amount of mucopurulent material was present. A probe could be passed all around the mass which was thought to be a polyp. There was a diffuse swelling over the mastoid region, rather hard, not tender, slightly edematous, and no fluctuation. No palpable cervical glands. The hearing was bad in the left ear, but the tests were not entirely satisfactory. The right ear was normal. The nose was normal; tonsils, hypertrophied. A diagnosis of chronic mastoiditis was made but hospitalization was not accepted. Under ethyl chloride anesthesia the growth in the ear was removed with a snare. There was free bleeding, but easily controlled.

The patient lived 50 miles from the hospital and was not seen again for 2 weeks, when it was noted that the growth had recurred. It was again removed. The patient returned 2 weeks later, with a complete left-sided facial paralysis and was then admitted to the hospital.

General physical examination was negative except for the facial paralysis and the growth in the left ear. Some small fragments of the growth remained in the depth of the canal. The swelling over the mastoid region was somewhat larger, but not tender, without fluctuation. Tests for hearing showed that the left ear was entirely deaf.

Roentgen-ray examination showed a large area of rarefaction extending from the external auditory meatus almost to the parieto-occipital suture and extending up to within one-half inch of the upper lobe of the ear, with definite evidence of bone destruction. There was a small area suggesting new bone formation posterior to and slightly above the external auditory meatus. No normal mastoid cells were seen on the left side. The right mastoid appeared normal.

The blood Wassermann reaction was negative.

The red blood cells were 4,600,000 with 80 per cent hemoglobin. The white blood cells were 11,800 with practically a normal differential count. The urine was negative. Spinal puncture showed a normal pressure, 5 cells to the cubic millimeter, normal chemical reactions, and sterile. Eyeground examination was negative. Temperature 100° F., pulse 92, respirations 22.

In view of the facial paralysis and other evidence, a radical mastoid operation was planned. A postauricular incision was made. The usual bony resistance was not felt but a peculiar grating sensation was noted. The periosteum was destroyed and the soft parts elevated with difficulty. The cortex was a thin shell of bone, riddled with holes, and could be picked off with forceps. The interior of the mastoid contained no bony structure whatever but was replaced by a friable, waxy, grayish pink tissue which bled rather freely. The sinus plate was gone and the growth had invaded the sigmoid sinus. The floor of the middle fossa was also destroyed and the growth invaded the dura. The entire posterior canal wall was replaced by tumor tissue. The mastoid tip, partly destroyed, was picked out with forceps. A portion of the growth was excised for laboratory examination, and enough of the growth was removed to expose what would correspond to the mastoid antrum. The only structure that could be identified was the prominence of the horizontal semicircular canal. The entire petrous portion of the mastoid could be moved about with forceps. There was no pus found anywhere. It was evident that a malignant growth had been encountered and no further exploration was done. The wound was left almost wide open and packed with iodoform gauze. The canal was cleared of granulation and debris with a ring curet, and packed with gauze.

The pathologic report showed the tissue to be made up of small round cells with deeply staining nuclei and scanty cytoplasm. It is traversed by broad anastomosing bands of dense fibrous tissue. Some hemorrhages occur into the tumor tissue. Histologic diagnosis was Ewing's sarcoma of the mastoid. The slides were examined by Dr. Bloodgood, of Baltimore, who confirmed the diagnosis.

Postoperative treatment consisted of daily dressings and applications of radium. This was followed by treatments with deep roentgen-ray therapy.

Roentgen-ray examination was made of all the long bones of the body to determine whether or not this growth was primary in the mastoid. No other involvement was found.

The postoperative course was mild, the temperature ranging from normal to 101° F., for about 10 days, after which it remained below normal. The wound at first was extremely foul but after about 3 weeks it began to dry up. The boy was up and about the ward after 3 weeks but showed occasional marked drowsiness. An eyeground examination at this time showed some blurring and elevation of both optic disks. Several spinal punctures, postoperative, showed no evidence of meningitis but there was some increase in pressure. At the end of 7 weeks the wound was entirely healed although there remained some swelling over the mastoid area and below the tip. At this time there was increased drowsiness, and occasional vomiting although he played with the other children in the ward. The parents signed a release and took the boy home.

He was not seen again until 5 weeks later, when he appeared rather ill, toxic, and emaciated. The swelling had increased in size and extended over and in front of the auricle. There was a large hard mass in the mouth projecting into the soft palate above the left

tonsil. This mass looked like a peritonsillar abscess but was quite hard and evidently an extension inward of the tumor.

A later report from the father stated that the boy failed rapidly, was unable to take food, and died about 10 days later. A necropsy was not obtained. The entire course of the disease was 8 months from the first appearance of symptoms.

The important points in the case are: The insidious onset; the similarity in signs and symptoms to chronic mastoiditis; the extensive bone destruction found at operation; and, the marked temporary response to radiation therapy.

209 State Street.

CONGENITAL CYST OF THE LUNG WITH UNUSUAL COMPLICATIONS*

Report of a Case

RALPH TYSON, M.D., PHILADELPHIA

No doubt congenital cystic condition of the lungs occurs more frequently than is suspected. The following case is reported mainly because of the interesting complications that occurred.

over the entire chest. There were signs of consolidation in the left lower lobe, sufficient to make a diagnosis of lobar pneumonia. The apical impulse was further to the left than normal, suggesting the possibility of a partial atelectasis. The day after admission signs developed of

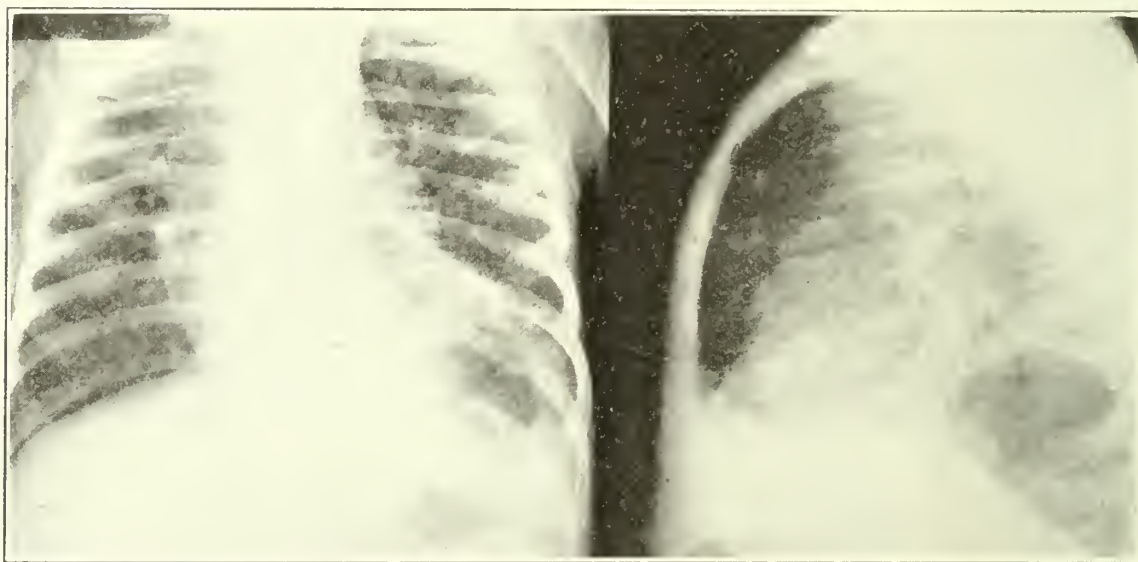


FIG. 1.—Roentgenogram shows a fairly large cyst at the base of the left lung. This is surrounded with some consolidation. The mediastinal shadow is irregular and much enlarged.

REPORT OF A CASE

Donald D., a 5 months' old colored child, was admitted to Temple University Hospital, Jan. 24, 1933, and died Jan. 29, 1933. The past history is unimportant except for wheezing since birth. Was a normal sized, breast fed baby. Birth was uneventful. The onset of acute symptoms occurred at age 3 months, characterized by an increase of wheezing, severe cough, and some fever. He was in another hospital for 2 months from which he was removed against advice. Upon his return home, became much worse, so was brought to Temple. On admission, his general nutrition was good, although he was in great distress and looked very ill. There was cough with nearly every respiration. The wheezing was marked and there was an expiratory grunt. He was restless and slept poorly. At no time was the temperature above 101° F. The pulse was 170 per minute, and respirations around 40. Many coarse râles were heard

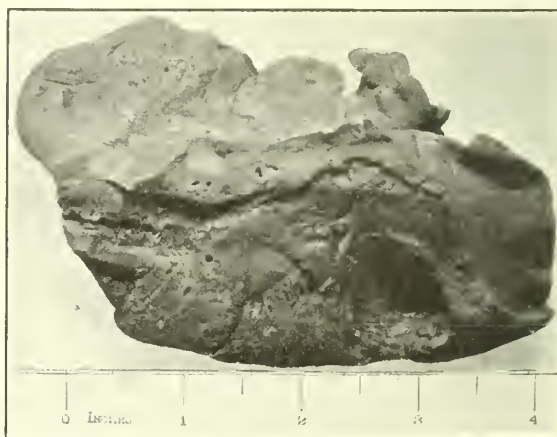


FIG. 2.—Section of the left lung showing the cavity wall posterior and near the base. The walls of this cavity were quite thin.

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

meningitis and a right-sided hemiplegia. A few hours later the left side became partially involved and the right side cleared somewhat.

Laboratory Data: The blood count showed hemoglobin 8.5 grams; red blood cells, 4,340,000; white blood cells,

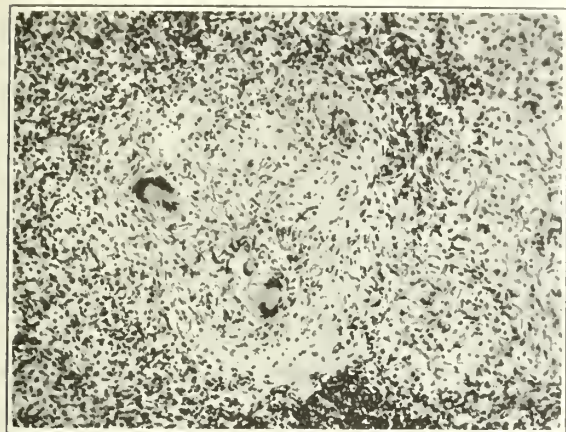


FIG. 3.—Photomicrograph showing in the center three giant tubercles and surrounding area of small round cells. The rest of the area is completely filled with round cells and represents a tuberculous pneumonia.

25,700; polymorphonuclears 76 per cent with 52 per cent young forms; monocytes, 17 per cent; lymphocytes, 7 per cent. A 1:1000 Mantoux test was negative after 48 hours. The Wassermann test and urinalysis were negative. A blood culture showed a pure growth of pneumococci. Cerebrospinal fluid was turbid, and under 18 mm. pressure. The globulin was increased. Sugar was present but reduced in amount. Chlorides were 435 mg. There were 221 cells present, most of which were lymphocytes. A second count showed 137

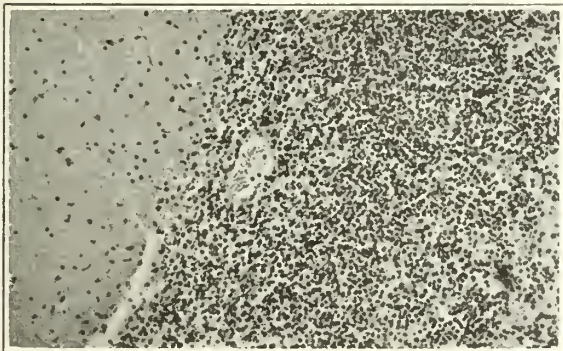


FIG. 5.—This section of the brain shows, on the right, brain tissue that is infiltrated with polymorphonuclear cells causing an encephalitis. To the left is an area of the meninges filled with polymorphonuclear cells and is an area of suppurative meningitis.

cells with 85 per cent polymorphonuclears. Smears and cultures were negative.

A roentgen ray of the chest showed a large cavity, 3 cm. in diameter, with thin walls at the left base well posterior. There was some consolidation about it. The shifting of the mediastinum to the left suggested partial

atelectasis of this lobe. The irregular edges of an enlarged mediastinal shadow suggested swollen and enlarged lymph nodes.

The clinical findings were somewhat confusing, but it was considered that the child had lobar pneumonia and meningitis. In spite of one negative tuberculin test

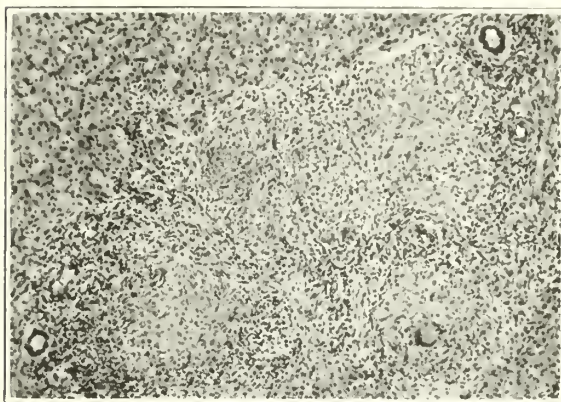


FIG. 4.—A section of the liver. In the lower right is a giant tubercle with some caseation. The other two similar areas are bile ducts.

it was thought that the meningitis was tuberculous. This was supported by spinal fluid findings of reduced sugar, low chlorides, relatively low cell count (the first showing mainly lymphocytes). The hemiplegia and high monocyte count were also suggestive. The roentgen ray revealed the lung cyst. A barium meal was given to distinguish the cyst from air in an abdominal viscus. The source of the tuberculosis was not found.

Necropsy findings revealed a generalized miliary tuberculosis, and congenital cysts of the lower lobe of

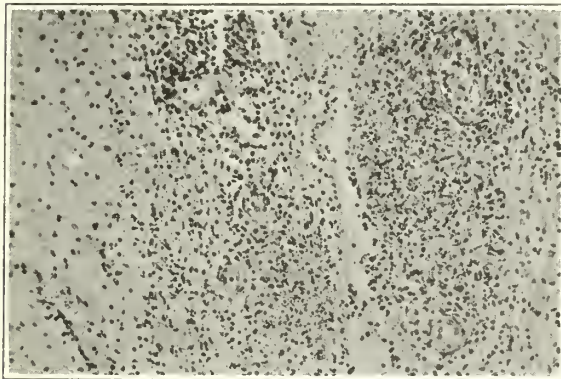


FIG. 6.—Section of the brain showing two areas of caseation necrosis with round cell infiltration. This is a tuberculous meningitis.

the left lung. The large cyst was filled with a purulent exudate, culture from which showed pneumococci. The cysts were surrounded with pneumonic consolidation. The brain showed both a tuberculous and pneumococcic meningitis.

SURGERY IN THE DIABETIC PATIENT*

MEDICAL MANAGEMENT OF THE SURGICAL DIABETIC

JOSEPH T. BEARDWOOD, JR., M.D., PHILADELPHIA

The subject of surgery in diabetes is one of increasing importance. It has been estimated that about 2 per cent of the population are diabetics. The majority of these patients are over age 40, and not only present the surgical conditions which any similar age group would present but by the very reason of their diabetes have surgical conditions which may be considered as complications or concomitant factors of the diabetes. Among these conditions may be mentioned gangrene, carbuncles, cataracts, thyrotoxicosis, gall-bladder disease, and many others. It has been estimated that at least 50 to 60 per cent of all patients suffering from diabetes require at one time or another the aid of a surgeon.

These figures show the importance of the subject, one in which the surgeon, internist, general practitioner, and specialist in most every field should be vitally interested.

The introduction of insulin by Banting and Best, in 1921, brought about a marked change in the treatment and prognosis of diabetes mellitus, and particularly made possible surgical procedures which before its discovery would not be attempted. In the pre-insulin era there were few surgeons who would perform any operations upon diabetics, except those of the greatest emergency, for the prognosis was poor indeed, and practically hopeless in those in whom infection was present.

Since the introduction of insulin, the patient with diabetes may be compared favorably with a nondiabetic of the same physical condition. With the modern management of diabetes these patients live to develop and to survive conditions requiring surgical intervention which 10 years ago would have been the precipitating cause of death.

It is important, however, if this improved prognosis be expected, that the internist and surgeon work in the closest coöperation.

The medical management of the patient with surgical diabetes readily divides itself into four headings: (1) Diagnosis; (2) appraisal of the patient's general condition; (3) appraisal of the local lesion; and (4) pre- and postoperative care.

DIAGNOSIS

All patients with glycosuria are not diabetics nor do all diabetics have glycosuria. Sugar may

appear in the urine in such conditions as renal glycosuria, pregnancy, hyperthyroidism, and pituitary disease. The diagnosis in these cases is made by doing a sugar tolerance test which gives a normal curve. It is important, however, that all cases showing sugar in the urine at any time should be considered as true cases of diabetes mellitus until proved otherwise, and the diagnosis should not be definitely made of a non-diabetic condition until the patient has been observed over a period of time.

Many cases of true diabetes have a high threshold for sugar, and do not develop glycosuria even with a blood sugar twice or three times normal. Diabetes, therefore, should be considered in all cases presenting symptoms suggestive of or lesions peculiar to diabetes. Among these may be mentioned:

1. Gangrene of the lower extremities.
2. Ulcers of the feet or legs which do not heal with the usual rapidity.
3. Cases in which calcification of the smaller branches of the pedal arteries are visible by roentgen ray.
4. Infections which do not heal in spite of adequate drainage.
5. Carbuncles.
6. Early cataracts.
7. Hyperthyroidism.

Though all these may be found in the absence of diabetes they are so frequently an accompaniment that it is wise to rule out hyperglycemia as a possible etiologic factor in their existence. Do not be content with a single fasting blood sugar determination, should this be normal, but repeat the determination 2 or 3 hours after a meal which contains at least 50 grams of carbohydrate. In a nondiabetic this blood sugar reading should be normal at the end of 3 hours.

APPRAISAL OF THE GENERAL CONDITION

Such a survey can be undertaken properly only in those patients in whom the operation is one of election and not of emergency. Arteriosclerosis is the most frequent complication of diabetes. This localizes chiefly in the arteries of the lower extremities and those of the coronary circulation. Fifty per cent of all diabetics will show a very definite disease of the coronary arteries which can be demonstrated at the necropsy table. Examinations should be directed, therefore, toward estimating the condition of and degree of reserve in the cardiovascular apparatus. If possible electrocardiograms should

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be made and the usual laboratory procedures done to determine kidney function. In addition, a thorough check-up on the other systems of the body should be included. Always remember that other organic disease may be present in diabetics.

APPRAISAL OF THE LOCAL CONDITION

This is limited for the most part to diseases of the lower extremities, but this is an important group and comprises the largest single subdivision of diabetic surgery. Many of these cases are preventable, and though it is not in the scope of this paper to discuss the care of the feet in diabetes it cannot be passed without emphasizing the importance of proper education and careful and frequent examinations. It is the clinician's prerogative to say when an operation should be performed; but the surgeon's, to say how and where. Unless the operator be well versed in the surgery of circulatory diseases a careful survey by both the internist and surgeon will be of help in guiding the operator in the selection of the level of operation. Such a survey should include:

1. Color and temperature of the foot when dependent and elevated.
2. Palpability of the dorsalis pedis and posterior tibial pulses.
3. Visibility of the arteries by roentgen ray.
4. Oscillometric readings.
5. Histamine reaction.
6. Surface temperatures of both legs.
7. Injection of lipiodol before operation.

These last four tests are tests of refinement which may be helpful in certain doubtful cases. In the average case, however, sufficient information can be obtained with the other tests mentioned properly to evaluate the condition.

In addition it is wise to do a Wassermann test in all cases of gangrene, as the presence of syphilis will frequently influence the prognosis and treatment. The presence of syphilis frequently can be anticipated by the appearance of the extremities. Should syphilis be present it should be actively treated with mercury and iodides.

PRE- AND POSTOPERATIVE TREATMENT

This heading naturally divides itself into 2 subheadings, namely, the care of the patients having operations of election and the care of those having operations of emergency.

In the cases of operation of election it is wise to admit the patient to the hospital from 5 to 10 days before operation unless he has been satisfactorily standardized at home. It is our custom to place these patients on the same maintenance diet as we would patients who were admitted solely for the standardization of the diabetes.

It is important that whatever formula you choose for calculating the diet, the carbohydrate portion be relatively high and the fat portion relatively low if you would avoid the danger of the development of acidosis from the diet alone. A formula that we have found satisfactory in these cases is based on the ideal or expected weight of the individual according to sex, height, and age. We allow 2 grams of carbohydrate, one gram of protein, and 2 grams of fat per kilogram of ideal body weight per day. This has a caloric value of 30 calories per kilogram. The diet should be individualized for each patient, but in preoperative preparation it is seldom necessary to give more than 2100 calories.

The patient is placed on this diet, a blood sugar determination made each morning, a plasma, carbon dioxide, and blood urea-nitrogen determination made on admission, and a 24-hour specimen of urine examined for sugar, acetone, and diacetic acid. If after 48 hours the blood sugar is still considerably above normal, insulin is indicated. It is impossible accurately to foretell the dosage of insulin that will be required in any given case. A method is to subtract 100 from the blood sugar value expressed in milligrams per 100 c. c. and divide by 5 (the blood sugar determination chosen should be approximately the average of the determinations over several days). If more than 15 units are required it is wiser to give 2 doses; if more than 30 units, 3 doses. It should be emphasized that this is only a rough estimate for determining the initial dose, and it must be increased or decreased depending upon subsequent laboratory findings.

It is important to bear in mind the complicating coronary-sclerosis and not to attempt to depress the level of the blood sugar too low. The level which we have adopted as the most satisfactory and safe one is the patient's age plus 100, expressed in milligrams per 100 c. c. Thus in a patient age 50 we would not attempt before or after operation to get the blood sugar below 150 mg. Even in children it is inadvisable to get the level too low as it means that these patients have less of a glycogen reserve to call upon during and immediately after operation.

If the blood sugar has reached a satisfactory level, and there is no evidence of acidosis as revealed by the laboratory examination, these patients are then ready for surgical procedure. It should always be the prerogative of the medical man to say when these patients should be operated on.

Once these patients have been standardized, it is important to carry them through the postoperative period on the same total glucose and

insulin that they received before operation. The total glucose of the diet may be calculated according to the formula of Shafer and Woodyatt—total glucose equals 100 per cent carbohydrate plus 60 per cent of the protein plus 10 per cent of the fat. The amount of glucose is divided into 4 equal doses as is the insulin, and one-fourth the total glucose is given 3 hours pre-operatively. Unless there is some contraindication this may be given by mouth as orange juice, ginger ale, or oatmeal gruel to which glucose has been added to make up the total carbohydrate content. If given much nearer the operation than 3 hours the stomach frequently retains it because of pylorospasm and it may be regurgitated later. A blood sugar and plasma carbon dioxide determination is done 3 hours after operation and the insulin dosage adjusted if necessary, the remaining glucose being given at 3 six-hour intervals during the 24 hours. This may be given by mouth if the patient's condition permits, or it may be given by vein. A method that we have found satisfactory is to administer it through a Jutte tube which is passed through the nose and into the duodenum. This has the advantage of resting the stomach, and it may be unnecessary to remove the tube for 48 hours. As the patient's condition improves, it will be possible to restore his diet, first as a semiliquid or soft diet, and then as a full diet, and the insulin may be allocated accordingly. It is important not to allow the blood sugar to reach too low a level and hypoglycemia should be avoided at all times if possible.

In cases of emergency operation, which are largely confined to acute abdominal conditions, it is important to remember that diabetic acidosis frequently will give all the symptoms of an acute condition within the abdomen such as nausea, vomiting, abdominal pain, and tenderness, increased temperature, and leukocytosis. During the past year, I have seen 4 patients who were referred to the hospital with the diagnosis of an acute condition within the abdomen but which were actually cases of diabetic acidosis. I would cite in particular the following case:

M. S., age 50, had diabetes for 6 years with inadequate control. Six days before admission she began to have nausea which was not relieved by the usual treatment. This continued, and 3 days before admission she began to vomit and developed pain and tenderness in the right upper quadrant. Temperature on admission was 103° F.; pulse, 110; white blood cells, 33,000. She had no stool for 5 days and the referring physician thinking she had an intestinal obstruction, sent her to the hospital for operation. Because of the previous history of diabetes, a blood sugar and plasma carbon dioxide were taken; the blood sugar was 660 and the plasma carbon dioxide was 17. The patient was then treated

as a diabetic acidosis and her symptoms promptly subsided.

TABLE 1.—*Surgical Conditions in the Diabetic Patient, with an Analysis of 250 Cases*

1. Gangrene	80
2. Abscess (exclusive of appendiceal abscess)	16
3. Cholecystitis	14
4. Malignancy (a) Carcinoma of breast ..6	
(b) Carcinoma of uterus ..5	
(c) Carcinoma of colon ...1	
(d) Carcinoma of stomach .1	
(e) Sarcoma of testicle 1	14
5. Carbuncle	12
6. Cataract	11
7. Hernia	10
8. Genital lacerations	9
9. Appendicitis (including 2 abscesses)	7
10. Pregnancy	6
11. Diseased tonsils	5
12. Infections of extremities	5
13. Uterine fibroid	4
14. Parotitis	3
15. Peritonsillar abscess	3
16. Contusion	3
17. Hypertrophied prostate	3
18. Fracture of fibula	2
19. Otitis media	2
20. Hyperthyroidism	2
21. Fracture of humerus	2
22. Pyonephrosis	2
23. Glaucoma	2
24. Necrosis of jaw	2
25. Varicose ulcers of the legs	2
26. Endometritis	2
27. Acute pelvic inflammations	2
28. Ulcerative colitis	1
29. Urethral stricture	1
30. Miscarriage	1
31. Pyelitis	1
32. Hemorrhoids	1
33. Epididymitis	1
34. Abdominal adhesions	1
35. Dislocation of humerus	1
36. Chronic metritis	1
37. Compound fracture of radius	1
38. Pulmonary tuberculosis	1
39. Lacerations of scalp	1
40. Fracture of radius	1
41. Gangrene of lung	1
42. Retinal detachment	1
43. Ovarian cyst	1
44. Fracture of femur	7
45. Cervical adenitis	2
Total	250

Acute conditions within the abdomen may occur in the diabetic, and require the same prompt and thorough treatment as in the nondiabetic. It is wise, however, for a diabetic who presents symptoms of nausea and vomiting, to do the usual laboratory studies in order to rule out acidosis. These can be usually done in 30 or 40 minutes, and there are few cases of such emergency that this slight delay will be of serious consequence in the ultimate outcome of the sur-

gical condition, and it may be the means of preventing a useless laparotomy.

It is our custom in all emergency operations to administer immediately before operation 30 to 40 grams of glucose intravenously with a dosage of insulin which is dependent somewhat upon the laboratory findings. This supplies nourishment for the myocardium and at the same time gives a certain amount of glucose which prevents the development of acidosis and carries the patient through the postoperative period. No attempt should be made to depress the blood sugar too low, either before or after operation, and these patients may be carried along on frequent small doses of insulin until they can be placed on a maintenance diet. The management of these cases from this point does not vary from that of the operations of election.

In the presence of acidosis and coma it is wise to postpone any surgical procedure until the acidosis can be controlled. These patients should be given immediately from 30 to 50 units of insulin depending upon the height of the blood sugar. In addition, a high compound enema should be given, and a gastric lavage should be done if there is any vomiting. The patient should

be put in a warm bed and external heat applied; 30 grams of glucose should be administered every 2 or 3 hours, balanced with an appropriate dose of insulin. It is wise also to force fluids, either by vein, subcutaneously, or by mouth. Sodium bicarbonate or alkalies in any form are contraindicated in diabetic acidosis.

An analysis of our cases shows that almost one-third had gangrene. The number of goiters (2) is much less than we would anticipate from the figures of Joslin and Lahey. According to their statistics, 3.85 per cent of patients with diabetes have hyperthyroidism. It is interesting to note that there were 6 cases of pregnancy—this is a problem which will be of greater significance in the future. In 11 cases the diabetes was not discovered before operation and of these 5 died and 2 developed severe infections. It is noteworthy that in the past 2 years there was no case in which diabetes was not discovered before operation. The question of syphilis has been briefly discussed. It apparently did not influence the mortality rate, and indeed renders the prognosis of cases of gangrene a trifle more favorable.

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SURGERY IN DIABETES

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Great progress has been made in the past ten years in decreasing the surgical risk of the diabetic patient. In operations of election we can standardize the carbohydrate metabolism to such a degree of accuracy that the diabetes *per se* adds little to the surgical risk. Emergency cases require surgical intervention without the benefit of standardization. In this group the diabetes undoubtedly increases the hazard, and may be very difficult to control subsequent to operation.

The combined management of the internist and surgeon affords the diabetic the best possible treatment. The internist has a clear understanding of the patient's carbohydrate metabolism at all times, and can assist the surgeon to decide the best possible time for an operation.

The most frequent complication which develops in the surgical diabetic is acidosis which, depending upon its severity, may or may not be accompanied by coma. To prevent this complication, we regard every diabetic who is to be operated on as a potential coma patient. The use of insulin has been a most vital aid. An increasing number of early diagnoses and the disappearance of fear of early operation in the

presence of diabetes have been of great assistance in the control of this complication. This has been particularly valuable in patients suffering from any infectious process. In this group we have learned not to procrastinate and postpone surgery until the patient's carbohydrate metabolism can be standardized, but to treat the focus of infection either by incision or excision, thereby aiding the control of the diabetes and preventing subsequent acidosis and coma.

The choice of anesthetic is important in this field of surgery. The best anesthetic to use is the one that disturbs respiration and carbohydrate metabolism the least. The three most desirable are: Local anesthesia; ethylene; and spinal. Local anesthesia is to be preferred whenever it is possible to use it. Ethylene produces less decrease in the carbon dioxide and less increase in the blood sugar than nitrous oxide and, therefore, is more advantageous. Spinal anesthesia is most satisfactory in major operations upon the lower extremities. Neocaine was used in this series and the dosage usually employed was 80 mg. If this anesthetic is used, the respiratory disturbance and postoperative nausea

and vomiting, produced by the inhalation type of anesthesia, are avoided, and there is little or no rise in the blood sugar. Avertin combined with either local anesthesia or a gaseous anesthetic is very useful in some cases, particularly in thyroidectomy. Ether is used very rarely in diabetic surgery, because of its interference with the metabolism of glycogen, the postoperative nausea and vomiting so common after its use, the disturbance in respiration it produces, and the hyperglycemia which develops in the course of its administration. All these factors increase the possibility of acidosis developing after ether anesthesia.

If the operation is an emergency, the preoperative management differs from that used in elective cases. In emergency cases, if the patient has acidosis and coma is pending, major surgery, with a general anesthetic is not wise, as there is no general anesthetic which will not increase the acidosis. With the exception of this group it is rare that an emergency operation need be postponed because of the diabetes. Experience has shown it to be a mistake to restrict the food too much before an operation upon a diabetic. In operations of election, we may render the patient's urine sugar free and safeguard him from acidosis.

Infectious processes localize with greater difficulty in diabetics, as their local and general resistance to infections is greatly decreased when compared with the nondiabetic. The principal reasons for this are: The cardiovascular changes and faulty carbohydrate metabolism which occur in this disease. If immediate operation is not indicated, therapeutic measures should be instituted which will improve the cardiovascular system locally and generally and stabilize the carbohydrate metabolism in an attempt to aid in the localization of the infection. There is a coexisting arteriosclerosis of the general arterial tree which manifests itself by both local and general changes. Age alone does not determine the degree of this change. Joslin has noted well-advanced changes in the cardiovascular system in patients in the early decades of life.

In severe or moderately advanced cases, the general circulation should be stimulated. If the condition of the infectious process permits, the routine standardization of the carbohydrate metabolism is done. A vigorous attempt to make the patient's urine sugar free is to be avoided. This precaution is taken to avoid hypoglycemia. Often times it is necessary to drain or remove the infectious process, and then the carbohydrate metabolism will improve. We have all seen patients with infectious conditions, particularly gangrene and carbuncles, who have come to the

surgeon too late for surgical relief, because of a too prolonged effort to control the carbohydrate metabolism. If localization does not occur and lymphangitis develops extending beyond the local lesion, the prognosis is not favorable and the surgical risk is great. Frequent blood cultures should be taken to isolate or rule out a blood stream infection. Septicemia is a grave and almost always a fatal complication in the diabetic. It occurs most frequently in patients suffering from carbuncles or gangrene. In general, the ability of the patient to localize an infectious process is a fair index as to the prognosis.

Gangrene is the most dangerous surgical condition which develops in patients in whom the diabetes is an etiologic factor. It usually occurs in the later decades of life and the blood supply of the affected extremity is deficient, because of the physiologic changes in the cardiovascular system, which normally occur at that age, in addition to the superimposed cardiovascular changes so characteristic of this disease. It almost always involves the lower extremities; gangrene of the upper extremities is extremely rare. In several institutions the cases of gangrene have been classified as to types, the majority being of the arteriosclerotic type. There is one group in which diabetes has existed for months or years and an extensive collateral circulation has developed. As a rule surgical procedures may be more conservative in these patients. An illustrative case in our series was a woman, age 67, with extensive infection and gangrene of the plantar surface of the foot with cellulitis of the dorsum. The patient had such an advanced degree of myocarditis that amputation was contraindicated. The infectious process was cured by local incision and drainage under novocain anesthesia in conjunction with local and general cardiac stimulants and local application of heat and mild antiseptics.

The most frequent etiologic factor is trauma to an extremity in which arteriosclerotic changes have developed. The trauma need be only of a very mild type. The first symptom noted by the patient, as a rule, is pain, either of a burning or cramplike nature. This may have been present for some time before an open lesion developed. The local changes and a general reaction to infection make the diagnosis apparent. If the temperature is elevated more than 1 or 2 degrees, blood cultures should be taken. One negative blood culture is of no significance. This study should be repeated at 24- to 48-hour intervals depending on the degree of toxicity the patient exhibits. The extremity should be examined to determine the extent of the process, the condition of the circulation, and to note any

evidence of infection. The palpability of the pulsation of the larger vessels indicates the extent of the process. This is of more importance than the size of the local lesion. Not infrequently the pulsation of the vessels is not impaired, and the gangrene is confined to one of the digits. In these cases, conservative surgical procedures may be employed; in a fair proportion the extremity is saved. We have noted that many more cases have fallen in this group in our series in the past few years. This is the result of having taught patients with diabetes the necessity of cleanliness and care of the extremities and that they should seek early medical attention for traumatic or infectious conditions. If nonoperative measures are instituted, careful surgical dressings and observation are essential. Amputation of a portion of the extremity is indicated if: (1) The gangrenous process involves several toes or a portion of the dorsum of the foot; (2) the local lesion does not respond favorably to conservative measures; (3) acidosis is pending; and (4) economic reasons forbid. The preparation for operation depends upon the presence or absence of infection, or pending acidosis. If infection is present, do not postpone operation, as relief of the infection is necessary to avoid acidosis. Functional results have been so unsatisfactory that partial amputation of the foot has been discarded. Opinions differ as to the site of election for amputation in these cases. Many surgeons believe amputation should be done above the knee as we are now seeing gangrene in older patients than we did before the introduction of insulin, and the blood supply of the extremity has undergone a greater physiologic change; and economic factors are of little significance because of the advanced age of the patient. We have used the supracondylar amputation in elderly patients, but in cases occurring in the fourth, fifth, or early sixth decades of life, an attempt has been made to conserve the knee joint by performing the amputation at the junction of the middle and upper third of the leg. The more conservative operation has been used only if the pulsation of the popliteal artery is good, and the gangrene does not extend beyond the distal half of the dorsum of the foot. The more conservative procedure is justified as we are now able to control the diabetes more accurately by diet and insulin. In the past year, 4 such cases occurred: 2 healed by primary union; 2 had drainage of 5 and 8 months, respectively. Re-amputation has not been necessary for any of these patients. All 4 patients have useful knee joints and can wear an artificial limb. If an amputation stump shows no evidence of granulation in 2 to 3 weeks, re-

amputation at a higher level is indicated. If re-amputation is contraindicated, local stimulants and surgical cleanliness are used.

We have injected the vessels in the amputated legs with mercury, demonstrating the degree of collateral circulation that may occur in a foot even though there is quite advanced gangrene, but in most of the severe cases the lack of blood supply is apparent.

Carbuncle is another serious complication of diabetes; its occurrence is not as frequent as gangrene. Carbuncles occur most frequently on the back of the neck; on the face, particularly the upper lip; the back; and buttocks. Those situated on the upper lip and back of the neck are the most dangerous. Early hospitalization is essential for the management of these cases. Apparently the danger of delay in hospitalization is more generally known in carbuncles of the lip than those situated elsewhere as shown by results reported in statistical studies. Any carbuncle occurring in a diabetic patient regardless of its situation should be given the same consideration. Eventually these lesions spread and involve a large area and in the later stages septicemia frequently develops. This complication is of the staphylococcic type and is accompanied by a very high mortality. Septicemia was found in 4 cases of our series, all were hospitalized in the late stage, and all died. If the patient is seen early and the lesion has not localized, hot moist applications are used. If localization has occurred, the carbuncle should be completely excised. This may be accomplished by the knife, cautery, or radio knife. The latter is to be preferred as a cleaner excision can be obtained. Roentgen-ray treatments may be used to hasten localization and to afford relief from pain, and in mild cases operative intervention may be avoided. This form of treatment is not applicable to all cases, and though many good results have been obtained, as a rule excision is still preferred. Diabetics are always prone to develop abscesses; however, since we have been able to control the diabetes with diet and insulin their occurrence has decreased. In some individuals the standardization of the carbohydrate metabolism is extremely difficult to obtain, even though the patient gives full coöperation. These individuals demonstrate the wisdom of the combined management of the internist and surgeon. In extreme cases autogenous vaccines may be used to advantage. Infections of the hand, particularly palmar abscesses, are common in diabetics; they do not localize readily and frequently large areas of necrosis develop before the infection can be controlled. For the past 5 years we have made a study of the carbohydrate metabolism of all

patients suffering from palmar abscesses which did not localize after adequate incision and drainage and in 6 instances the patients were found to be suffering from diabetes. In the light of this experience, routine blood sugar determinations and analyses of 24-hour specimens of urine have been made in all patients suffering from infectious processes which do not respond to the usual therapeutic measures. Several mild cases of diabetes have been found and a few patients have had very high kidney thresholds. In the latter group a special diet was prescribed, which lowered the level of the blood sugar and was of great assistance in eradicating the infection. These observations have shown conclusively that any alteration in carbohydrate metabolism may show its effect upon the ability of a patient to overcome an infectious process.

Abdominal conditions, acute or chronic, which occur in a diabetic, frequently present problems which necessitate careful study. Statistics show that gallstones occur more commonly in the diabetic than the nondiabetic patient. Joslin contends that there is some relation between gallstones and onset of diabetes, and even though no disturbance in the carbohydrate metabolism is found in the routine examination, he advises operation as a prevention of diabetes. Not infrequently transitory glycosuria is found in patients suffering from cholecystitis. This disappears subsequent to operation, but these patients are regarded as potential diabetics and follow-up studies, including a blood sugar determination at intervals, are made.

Acute conditions within the abdomen may be very difficult to distinguish from acidosis in the diabetic. An accurate history and a careful evaluation of the physical findings and studies of the blood and urine are necessary. The local findings of tenderness and rigidity, so characteristic of an inflammatory lesion, are the most important differential findings. Leukocytosis, a rise in the pulse rate and temperature may be found in either case, however, as a rule, the rise in pulse rate and temperature is more in proportion in the inflammatory abdominal condition.

In several of the larger clinics, diabetes has been found in approximately 3 per cent of the patients operated upon for hyperthyroidism. It is generally believed to be more commonly associated with toxic adenoma than exophthalmic or hyperplastic toxic goiter. It is not uncommon to find glycosuria associated with hyperthyroidism, and it should be distinguished from true diabetes. It is thought that the interrelation of the pituitary and the thyroid gland is responsible for many of these cases. Basal metabolic readings are not as satisfactory if diabetes compli-

cates the hyperthyroidism, as diabetes lowers the basal metabolic rate, and hyperthyroidism increases it. Studies by Wilder, Joslin, and Lahey show that hyperthyroidism preceded the diabetes in primary hyperthyroidism in 75 to 82 per cent of their patients, suggesting the possibility that hyperthyroidism is of etiologic significance in the production of the diabetes. In severe cases the management may become complicated. As soon as the patient's condition permits, thyroidectomy should be performed. If the patient is relieved of the hyperthyroidism, the diabetes can be controlled more readily. Once the hyperthyroidism has been relieved, insulin and diet should prolong the lives of these patients as much as they do that of any other patient with diabetes. We have seen only 5 cases in our series in which hyperthyroidism was associated with diabetes; 3 had toxic adenomata, and 2, the exophthalmic type of goiter.

In our series of 250 cases, there were 80 cases of gangrene, all confined to the lower extremities. The average age of these patients was 51 years and the average duration of their diabetes was 5 years. Twenty were not operated upon; 5 refused operation; 6 were moribund on admission; and 9 responded to nonoperative measures. Sixty patients were operated upon with 13 deaths, a mortality of 22 $\frac{1}{3}$ per cent. Two cases of gangrene were complicated by a gas bacillus infection. There were 9 cases in which a positive blood culture was obtained. In 4, the streptococcus hemolyticus was isolated and a staphylococcus was found in the remaining 5. All these patients died. In 4 instances, the septicemia complicated carbuncles; in 2, gangrene; in one, osteomyelitis of the tibia; in one, gangrene of the lung; and in one, there was a sloughing area subsequent to roentgen-ray therapy. There were 12 cases of carbuncle of the neck, with 4 deaths; as previously stated all 4 were admitted late and had positive blood cultures.

It is interesting to note the gradual increase in the number of operations of election. If the cases were grouped into those of the pre- and postinsulin periods, only 30 per cent of the operations in the preinsulin period were those of election; in the postinsulin period the figure rose to 55 per cent. We had 3 cases of perforated appendicitis with peritonitis, 2 of which had a blood sugar of more than 300. These 2 patients died; the third is suffering from a very severe form of diabetes. Though the number is few, they again illustrate the necessity of early treatment if infection complicates diabetes and the operative mortality will be reduced.

ABSTRACT OF DISCUSSION

ELDRIDGE L. ELIASON (Philadelphia): The statement that I like best in both papers is that the results depend upon teamwork. The surgeon needs the medical man to take care of the medical aspects; the medical man needs the surgeon to decide when and what type of surgery should be employed.

Diabetes gives an extremely high mortality, that depends to a great extent upon the ravages of the disease and upon the treatment. We must consider 3 things in handling a diabetic patient: Arteriosclerosis, acidosis, and infection. Insulin has been of great benefit in acidosis and in preparing the patient for operation. It has obviated the danger of coma. In our series in the metabolic division of the Philadelphia General Hospital, we have encountered coma not once since the administration of insulin. Insulin, however, has not helped diabetic gangrene. Despite the fact that insulin has increased the longevity of the patient from 7 to 10 years, the incidence of gangrene has not been improved because we have to consider a patient older by from 7 to 10 years. At the University Hospital, previous to the use of insulin, 2.5 per cent of the patients admitted with diabetes had gangrene. After the use of insulin, 6.2 per cent had gangrene; insulin has not stopped gangrene. In the University Hospital, before the use of insulin, the average age of death of these diabetic patients was 37, whereas after the use of insulin the average age of the patient admitted was 51 years. Contrast that with the different type of case that we get at the Philadelphia General Hospital, the average age there being 65. There is a vast difference in the type of patient, not only from the standpoint of their economic position but from the standpoint of the care that the patient has had. At the Philadelphia General Hospital there were no private patients; the University Hospital had private patients considered in the figures that have been mentioned.

The essayists called attention to the fact that infection is a great enemy in these cases of diabetes. In a series of 25 death certificates, myocarditis was the primary death diagnosis in 17 of the 25; infection was the primary cause of death in 8, which is practically 33½ per cent of the deaths directly caused by infection. Analysis of these cases at the Philadelphia General Hospital showed that infection was concerned in the death in 95 per cent of the cases. Insulin cannot stop infections. We must do that before the patient comes to the hospital as insulin is crippled in its effect on the patient in the presence of infection. Several years ago when insulin was new, the late Orlando H. Petty remarked to me, concerning a patient with diabetes who was operated on for gallbladder disease, that there was an abscess in the wound. He was right and I had to evacuate an abscess in the abdominal wall.

The essayists called attention to the fact that acidosis has often to be considered in the differential diagnosis in acute abdominal cases. This is frequently true in children. A patient will be sent to the hospital for acute appendicitis but it will be found frequently that the patient is suffering from acidosis and the differential diagnosis is often made on the fact that the acidotic child starts to vomit first and develops pain afterward. We should not blind ourselves to the fact that a patient with appendicitis can have acidosis. The rigidity and localized pain help to distinguish these.

It was stated by the essayists that insulin has been a boon to the diabetic who has associated surgical lesions that have to be taken care of and that it has made the diabetic safe for surgery. It has not very much im-

proved the surgery of diabetic gangrene. Dr. Bothe has shown a mortality of 22 per cent. I should like to have his expression whether that means over a period of 10 days of hospital stay. Mortality at the Philadelphia General is as follows: Previous to 1926, the 24-hour mortality was 3.6 per cent. After 1926, it was 3.5 per cent. The 30-day mortality previous to 1926 was 43.6 per cent; after 1926, with the incidence of insulin it was 41 per cent. The 6 months' mortality previous to 1926 was 61 per cent; after 1926, when insulin was used, it was 55 per cent. Insulin has not helped very much in these cases.

In an analysis of the last 67 cases, the mortality approaching 24 months was 88 per cent. This shows that we have not been able with insulin to help the diabetic gangrene much in the prolongation of life.

With reference to the remark that infection is the enemy of the patient with diabetes, if infection has occurred the patient's chances are so very much jeopardized that we must train and educate him and those who care for him to keep the diabetic foot clean; 87 per cent of the cases of diabetic gangrene in the Philadelphia General Hospital were infected; 50 per cent of the patients with diabetic gangrene who were admitted to the hospital never knew they had diabetes until they saw their foot turning black from gangrene. The foot should be dressed with sterile dressings; wet dressings should not be applied to the infected feet of diabetic patients. Diabetic gangrene and infection do not tolerate hot, wet dressings nor do they tolerate ointments. The majority of ointments, having stood on the bathroom shelf for 5 or 6 years, are perfect food for bacterial growth.

DR. BOTHE (in closing): All patients suffering from gangrene that were operated upon and died in the hospital were included in our mortality figures. Some patients died within a few days; others within a month or 6 weeks after operation. A few words should be mentioned as to the difference in mortality which occurred in our series from those in Dr. Eliason's. His patients were much older. Our patients averaged age 50; his, age 68. Apparently, infection was more frequent in his series as a complicating factor. I do not know the exact percentage of our patients which were complicated by infection. An important reason for our differences in mortality is that there were many more patients upon whom Dr. Eliason operated, in whom the diabetes was not known to have existed prior to admission to the hospital. This is of importance because it is the universal experience that the mortality is higher in patients operated upon in the presence of diabetes if there had been no knowledge or recognition that this disease had existed prior to admission to the hospital. The fact that Dr. Eliason had so many patients who were not known to be diabetic prior to admission to the hospital, should be a stimulus for all to be suspicious of diabetes in the individual who has this type of lesion in the lower extremities, and metabolic studies should be made in each instance.

Prof. Walter R. Miles, of Yale, has discovered and reported to the National Academy of Sciences that the human eyeball does not pivot itself exactly on its center as has been supposed. He found that when the eyeball rolls upward and when it swings from side to side it rotates on a shifting pivot. From the standpoint of anatomy this discovery is of importance as well as being a matter of practical optical mechanics for eye specialists.

DISEASES OF THE UVEAL TRACT*

JOHN A. WEIERBACH, M.D., QUAKERTOWN, PA.

In the topic, uveitis, will be described more especially some frequent and predominating etiologic factors, and their relationship to such diseases and conditions as focal infections, tuberculosis, and syphilis.

Though conscious of the uncouth term, "uveitis," I feel confident there is merit in emphasizing the close anatomic relationship and the frequency with which inflammatory processes involve this tract as a whole and are not limited to a single part of the uveal tract; however, more especially exemplified in inflammation of the iris and ciliary body. An inflammation of either one alone probably never occurs but often takes its name iritis or cyclitis according to the predominating location of inflammation. General uveitis no doubt is the most common in the more chronic types. So often a case is diagnosed as choroiditis if the ciliary body is involved to a slight or a very considerable degree, that the pathologic continuity scarcely can be too forcibly insisted upon. Because of the character of this meeting and the limited time we must forego the histologic construction as well as the differential diagnosis from other pathologic conditions, such as glaucoma or acute conjunctivitis, *etc.*, as the case might be.

It is interesting to read in textbooks under etiology, such factors as diabetes, rheumatism, gout, scrofulous diathesis, gonorrhea, *etc.* It is equally interesting to note while working in large clinics and with men who have extensive experience, how occasionally, if ever, these become established causative factors. On the contrary, either a focal infection, such as tonsils, teeth, sinuses, prostatitis, or syphilis, tuberculosis, and trauma stand almost invariably indicted. Since rheumatism is caused mostly by focal infection or some infection we should leave this term out of the etiology. The most important work on chronic uveitis has been done within the past 20 to 25 years. This is especially true concerning the etiology; accordingly destruction of different parts is much less; and treatment, both preventive and curative, much more satisfactory.

The presence of uveitis is more than a danger signal and calls for a searching and universal examination for possible general infections, but more especially some focal infection, though often remote, of which it is usually a manifestation.

We are interested in ophthalmic inflammations and manifestations caused by prostatic conditions and posterior urethral infections. As in many other scientific medical discoveries, the practical value lies in the wisdom and energy to put it to work to the interest of the patient. It is a fairly well established fact, contrary to general belief, that the prostate is subject to many other infective inflammations than gonorrhea. In 1926, Zentmeyer made mention that the prostate was a rather remote cause of ophthalmic inflammation, and had possibilities of many other varieties of infection than gonorrhea. Quoting from Dr. Pelouze, as follows: "Fifty-five per cent of all men beyond 35 years of age have a prostatic infection, and further, at least 72 per cent of all men presenting symptoms of focal infection of any sort have an easily demonstrable prostatic infection. The prostate no doubt often harbors a secondary infection to tonsils, teeth, *etc.*, and the prostate continues and disseminates this infection." A negative history as to gonorrhea is practically of no value. A low-grade prostatitis may be not at all troublesome. It is obvious, regardless of history to the contrary, that we should have the prostate investigated, especially if at the end of our resources otherwise, and having satisfied ourselves as to tonsils, sinuses, teeth, blood Wassermann, tuberculosis, *etc.*, if it is an obstinate case of iritis or iridocyclitis.

Frequently some or all parts of the uveal tract become diseased by infective inflammation, the source of which is in the prostate gland and, furthermore, a mild massage of the prostate gland repeatedly done may improve or cure the eye condition. This massage should not be repeated within 7 or 10 days after the previous reaction (if any) is over. If this treatment is too frequent or too severe, there may be a severe flare-up in the eye condition, meaning that these delicate parts of the eye already beyond the point of toxin tolerance now become loaded suddenly to a destructive and irreparable damage, which is probably due to extreme sensitization, and not necessarily, in fact seldom, to the presence of microorganisms within the eye itself. If no sign of, or faint eye reaction whatsoever is present after a treatment of this type, it may be almost accepted that the prostate is innocent. Another point proved by observation and too infrequently considered, is an intermediate location to multiply bacteria, generate, and disseminate toxins to the eye. The eye in such a case

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

is not heir to its trouble from the original focus of infection. We often meet disappointment by eliminating what seems our primary etiologic factor.

The teeth, tonsils, and paranasal sinuses are the three remaining sides of a quadric producing by all odds the greatest percentage of focal infections anywhere. This statement is not meant to minimize many more infrequent foci, from almost any mucous membrane, such as appendix, gallbladder, pus tubes, *etc.* Rosenow believes from his experiments that localization of bacteria or their toxins in the uvea is very frequent in cases of uveitis, and that the microorganisms have specific affinity for the eye, causing ocular disturbances. In some experimental cases he was able to recover the organism itself from intra-ocular lesions, and either the toxin or bacteria recovered from the primary lesion produced a similar eye condition in some inoculated animals. The comparative frequency of uveal infection from other foci of infection can easily be understood and explained by the very liberal blood and lymph supply. This blood supply is almost equally true with the tonsils, paranasal sinuses, gum tissue, the prostate, gallbladder, *etc.* Most focal infections are endogenous and are carried by the blood to some defenseless and innocent eye (or other tissues).

The diagnosis of uveitis is fairly easy with its rather classical symptoms for an experienced diagnostician in eye work, but seems rather difficult for the general practitioner: because of this, and the destructive course, the teachers in the undergraduate school of medicine have fallen short of their full duty. As specialists, we should have some tactful way to impart to those who refer work to us, almost all the important ophthalmology they need to know, namely, how to diagnose and distinguish iridocyclitis, glaucoma, and acute conjunctivitis.

In treatment, we try to prevent further destruction and complications, such as synechia, secondary cataract, *etc.*; and to determine the source of their cause and remove these, or cause them to be removed by other men in their several specialties.

TUBERCULOSIS

Tuberculosis is recognized as a prevalent cause of uveitis. Some internists think it is almost certainly not indigenous to the eye but secondary to tuberculosis elsewhere from which bacteria reach the eye or from which allergic reaction is set up within the eye. Diagnosis cannot be made from symptoms alone but more exacting methods, because nontuberculous infection is of equal importance as a cause of

uveitis. Though the tubercle bacilli have been found only occasionally in the uveal lesions, the pathologic picture is so typical of a tubercle in other parts of the body in which the tubercle bacilli have often been found and isolated, that the identity should not be questioned. In chronic infections affecting the uvea, tuberculosis is more frequently the cause than many of us are inclined to accept. Rarely inside of the eye are found secondary infections with streptococci, staphylococci, *etc.* If we had no secondary infection to give a local devitalization of tissue and a general undermining in the lung, lymph nodes, *etc.*, in a tuberculous infection, we doubt if our attention would be attracted to an earlier recognition of the exact trouble, and the finding of tuberculous lungs unless by the roentgen ray. No part of the uveal tract is invulnerable, though the ciliary body is most often the initial site in the eye for secondary tuberculous infection which often comes by way of the blood stream from some known or unknown focus in the body, and occasionally by trauma.

Most cases of tuberculous uveitis are characterized by formation of nodules and must be distinguished by history, Wassermann test, tuberculin reaction, animal inoculation, or microscopic examination of tissues involved, or the presence of foci in the body elsewhere. It is probably more often found in patients younger than age 25.

Tuberculin, as a test may reveal tuberculosis in some part of the body, although a negative reaction usually means nothing. Internists are fearful that some remote and latent lesion may be set into activity by tuberculin. A few others feel that its biggest value is in the therapeutic doses given as a diagnostic agent, both as to a local reaction at times at the point of injection, and again in the improvement of the ocular condition. Though lost in so much confusion and disagreement, we forget to build up our lines of defense. Though we must admit the bacilli are not often found, that they prevail is well-founded. The injections of tuberculous material in the anterior chamber, the ophthalmic vein, and other parts of the body of rabbits and guinea pigs have given lesions conforming to tuberculous lesions elsewhere, and also such as diagnosed as ocular tuberculosis. The most prevalent lesions are: First, diffuse type (and here it becomes difficult for differential diagnosis); second, miliary; third, confluent; fourth, mixed forms; fifth, very often on the choroid, conglobate, or tumorlike; another, also on the choroid, the disseminate. These lesions often remain inactive at intervals and later become active

and frequently leave areas of cicatricial tissue. This especially applies to the choroid.

The acute form is often associated with tuberculous meningitis, giving round or oval grayish or yellowish nodules near the posterior pole, elevated and multiple, with indistinct edges. In the chronic form the lesions are more peripheral and accompanied with cyclitis, giving a mutton fat on the posterior surface of the cornea and a cloudy vitreous. This form is usually not mentioned in textbooks. These eyes do badly after operation. The conglobate as a rule is solitary, chronic, resembling an intra-ocular tumor, and is located close to the posterior pole taking in the entire coat from the sclera to the vitreous. It often caseates and eventually forms a scar. The disseminate type is extremely chronic and often simulates choroiditis. In the early stage, tuberculosis of the iris and ciliary body simulates an iridocyclitis from other causes. The iris stroma becomes thickened, its luster lessened or lost. Fibrinous exudate with synechia occurs. The severe symptoms soon subside and the case becomes chronic with evident nodules, and the diagnosis becomes obvious, especially if syphilis and sympathetic ophthalmia can be excluded.

Chronic diffuse iritis and cyclitis are often associated with tuberculous scleritis or tuberculous keratitis, with marked atrophy of the iris and corneal opacities. In chronic miliary iritis, grayish yellow nodules are usually situated near the periphery or the basal zone. This condition may subside at any stage and if early will leave the iris practically normal, or it may progress and become confluent and conglomerate and cause partial destruction of the normal iris tissue. If this happens in the young it is as a rule a manifestation of a generalized miliary tuberculosis. Complications such as hemorrhage (slight or destructive) in the iris or anterior chamber, secondary glaucoma, synechia, *etc.*, often become evident; in the conglomerate type, perforations may occur. Often the mildness of the pain and other symptoms are not in keeping with the appearances of the lesion of the eye, and again the ciliary body is often the beginning of tuberculosis which spreads to the iris, choroid, retina, and sclera, and is rarely discovered early.

POSTTRAUMATIC TUBERCULOUS UVEITIS

The relation or the factor that injury plays to pave the way or invite consequent tuberculosis of the eye as well as bones and joints has long been recognized. The question of even trifling injuries on an individual case should not be dismissed without concern to the physician, or employer, in case of workmen's compensation cases and its final disposition in such an event. The

question here always remains to decide if possible whether infection occurred at the time of injury or secondary from some remote focus to a tissue of lessened resistance in the eye. This is of real practical importance because it would be of little value to remove an eye to prevent generalization of a tuberculous process had it come from some distant point. On the other hand, had it come from a lacrimal sac which is removable it would change the procedure decidedly. Cases of traumatic tuberculous uveitis, showing no evidence of perforation of cornea or conjunctiva, belong to the endogenous type, coming through the lymph or blood, or through inflaming an already existing quiet focus in the anterior part of the uveal tract. Tissues of the eye exposed to infection from without are relatively resistant to a tuberculous infection. It is also recognized that every other infection encourages tuberculosis, which again points to a lowered resistance whether local or general. Possibly slight injuries like contusions, *etc.*, are more often factors in tuberculosis than are extensive injuries.

SYPHILIS—UVEITIS

Our thoughts should conform to the idea that the blood stream has brought the trouble from some more remote parts. This again is a local manifestation of a grave constitutional disease. These lesions, if hemp-seed nodules in size, located near the margin of the iris, yellowish, reddish yellow, or reddish brown, are almost pathognomonic of acquired syphilis, if appearing from the second to the seventh month. Occasionally we find a gumma in the iris which comes from the tertiary stage. Possibly the cause in more than 25 per cent of all iritis is syphilis, in the colored race more frequent than in the white. The salt-and-pepper fundus is practically pathognomonic of syphilis. We depend too often on one negative blood Wassermann test which proves nothing, but is misleading into a relieved state of mind. In the face of a second negative blood Wassermann a cerebrospinal fluid Wassermann test should be done when such a rapid destructive process is going on, ruining such a defenseless and innocent organ as the eye.

TREATMENT

In treatment there may not be much if anything new or spectacular, but such measures as early diagnosis, dilatation of the pupil, and removal of the cause become mandatory, if at all possible. For the relief of pain, with possibly some curative virtue, acetylsalicylic acid and infrared rays are fairly helpful. If nonspecific and focal infections are discovered, nonspecific

proteins have become recognized to be of considerable value. Milk probably was the first one to be used, but is painful to the patient and inconvenient for preparation in office or outpatient clinical treatment, both points easily overcome by ampules of some prepared nonspecific protein, as proteolac or even diphtheria antitoxin. In a small series of cases I have used iodonin, an iodine preparation made up in ampules. While this needs further study and observation, its physiologic action as a tissue antiseptic and absorbent to prevent adhesions, *etc.*, warrants its use.

In tuberculous and syphilitic uveitis, for want of something better, we must still adhere to the building up of the system, and injections of tuberculin, antisymphilitics, and mixed treatment as the case in question happens to be one or the other. The result in the use of either of these is not always striking.

SUMMARY

1. Focal infections are frequently the cause of uveitis; rheumatism rarely causes uveitis. If a male patient, the prostate should be investigated.
2. Often an intermediate source propagates and disseminates bacteria and toxins.
3. Chronic uveitis is often tuberculous in origin.
4. All parts of the uveal tract are vulnerable.
5. Symptoms of chronic tuberculous uveitis are closely simulated by syphilis and sympathetic ophthalmia.
6. Generally recognized omnipresence of tubercle bacilli in the human system, and the part played by the body in general and local resistance cannot be ignored, because here by injury a reduced resistance always plays a possible factor in the development of tuberculosis.
7. There exists almost pathognomonic difference in color and outline between tuberculous and syphilitic lesions.

ABSTRACT OF DISCUSSION

LEIGHTON F. APPLEMAN (Philadelphia): I wish to call attention to the importance of early treatment of these cases. Even before the cause has been determined, it is exceedingly important that energetic treatment should be instituted in order that the patient's vision may be conserved as much as possible. This holds particularly true in diseases affecting the anterior part of the uveal tract, the iris and ciliary body, in which failure to recognize the lesion promptly may result in serious impairment of vision owing to inflammatory exudates in the pupillary space, or synechia. Before the discovery of the causative infection through serologic studies, or otherwise, it is necessary to institute early treatment to prevent failure of vision, and for this purpose a mydriatic of standard type is necessary, usually three times a day. This should be continued for some time after the acute inflammation has subsided. There are cases in which atropine or some

other mydriatic has been used and stopped too soon, with the result that there was a recurrence of the inflammation and the treatment had to be repeated. In addition to this the use of diosmin is of value, beginning with a strength of 2 per cent and increasing to 5 or 10 per cent, and in some instances powdered diosmin in the culdesac. By this means rapid interchanges are averted, the lymph stream is stimulated, and the chance of absorption of the exudate is increased.

Aside from this, the patient may be made more comfortable by heat in the form of hot compresses. In addition, use free purgation, particularly with calomel, because calomel not only unloads the alimentary tract, but stimulates an increased flow of bile, at the same time increasing the urinary flow by which toxins may be eliminated. A dose of calomel in the evening followed by a saline in the morning thoroughly eliminates toxins, particularly in this portion of the anatomy of the patient. Use sodium salicylate in rather full doses, provided the patient's stomach will bear it. The foreign proteins—milk or similar products—administered once daily, produce marked improvement of the acute symptoms. If the infection can be identified, treatment for the alleviation of the infection is in order. In cases which involve the posterior portion of the uveal tract sometimes the improvement is distressingly slow, and if there is a tuberculous infection, the unfavorable reports that have been given of the use of tuberculin have been due to its being pushed too much. Begin with an exceedingly small dose and continue over a long period of time, expecting months to elapse before the patient is aware of great improvement, because in these cases there are marked changes in the vitreous and in the structures of the retina as well. We should go very slowly, even though the patient may be eager to note some improvement. Usually the results are favorable.

ANDREW HUNTER (McKeesport, Pa.): Most of us have had cases in which we have exhausted all apparatus in the search for focal infection and have not found it.

I should like to ask about a case that is paradoxical—inflammation of the uveal tract in which there is also glaucoma. The case apparently began as an iritis or inflammation of the complete uveal tract. There had been a cataract preceding it. The other eye had been successfully operated upon 6 months before. No focal infection could be found, and no local or general measures seem to be of value in abating the iritis or uveitis or the glaucoma. What treatment would Dr. Weierbach recommend in such a case?

L. PELLMAN GLOVER (Altoona, Pa.): Tuberculin does much good in some cases; in others, it is a failure. During the past 6 years at the Cresson Sanatorium for Tuberculosis there have been only 2 cases of retinitis or iritis among the patients, which could definitely be called tuberculous. In everyday practice, however, we see cases in which there is no active tuberculosis and in which tuberculin gives good results. In Philadelphia its use has been disparaged but in the Wilmer Clinic, in Baltimore, tuberculin is used almost constantly and the results have been good. Tuberculin should be used in small doses, slowly increasing to larger doses, and if there is a reaction it is because too large a dose has been given.

DR. WEIERBACH (in closing): As to the treatment of complicated conditions, such as cataract and glaucoma, it is a difficult question, depending to an extent upon which predominates. Cataract would not be considered for extraction at this time.

EDITORIALS

DAYLIGHT SAVING TIME

On Sunday, April 29, Daylight Saving Time became effective in many sections of the State of Pennsylvania, for the 1934 season, to continue until September 20.

We ask our members to please bear in mind that in issuing birth and death certificates, the date of birth and the date of death must be given in Eastern Standard Time to meet the requirements of the State Law.

On the whole, Daylight Saving Time seems to be popular with the majority of persons. There are many, however, who object to it. Farmers claim they can not fit their chores to it. Parents seem to have difficulty in adjusting the schedules for the children as to going to bed and getting up in the morning. The motion picture industry has its objections, claiming that persons spend more time out of doors during the Daylight Saving Time period than indoors (a very commendable reason for Daylight Saving Time).

Each year brings protests to the local powers that be against the adoption of Daylight Saving Time, but it must be the will of the majority or the officials having control of these matters would not go on from year to year adopting the procedure. It is very evident that the majority of persons do enjoy the longer after-work period of daylight afforded by the summer season and Daylight Saving Time.

THE NEED FOR RESEARCH IN MENTAL HYGIENE

David C. Wilson, associate professor of neurology and psychiatry, University of Virginia Medical School, stresses in the *Virginia Monthly* (1933, p. 591) a subject which is now receiving the attention of mental hygiene workers throughout the United States, to wit, the need for research in mental hygiene. As Dr. Wilson says: "Mental hygiene developed from psychiatry but has reached out beyond the study of the abnormal and has changed its goal from the understanding of mental disease to the understanding of all human behavior, both the well adjusted to life and the maladjusted." In this great venture naturally these questions arise—can mental diseases be prevented; what proofs have we?

Dr. Wilson approaches the answer to such questions by a recital of good results in dealing with juvenile delinquents, stressing environmental causative factors. He, also, points to fertile fields in which research would enable us

to make progress in the understanding of such problems, as to "why of the 48,082 individuals committed to jails (in Virginia) last year, are there so many juvenile and young adults? Then there are 100,000 children in this State (Virginia) that did not attend any school in 1929-1930, and 59,659 white children and 35,863 colored failed to pass, while 69,051 were dropped from the school." Dr. Wilson certainly clinches his point as to the need of research. There is something radically wrong with Virginia.

Just what the situation is in Pennsylvania, in this respect, the writer is unable to say. We do know, however, that our situation is not too good and like Virginia we are confronted with school problems, psychopathic personalities, juvenile delinquents, youth criminals, long waiting lists to our schools for feeble-minded, high admission rates to our mental hospitals, and ever increasing taxpayers' burdens.

It is to be hoped that the economic cloud will lift and money for the erection of the Psychiatric Institute at Pittsburgh and completion of the Institute for Juvenile Delinquents will be forthcoming. Again, more moneys for research could be well spent in the Children's Clinic at Allentown, the Diagnostic Clinic at Danville, and the admission services of all our State mental hospitals, schools for mental defectives, and institutions for the feeble-minded of child-bearing age. Research money spent by Philadelphia, Pittsburgh, and Scranton could yield great returns. This editorial is in no way to be construed as casting disparagement on the very excellent work in the Pennsylvania institutions. Much more good work could be done, however, if additional money was available.

GEORGE ALEXANDER KNOWLES, PH.G., M.D.

George Alexander Knowles, Philadelphia, assistant director of Public Health of the City of Philadelphia, died at his home, April 11, 1934, from heart disease, after several weeks' illness, aged 65.

Dr. Knowles was born in Philadelphia, and gained his early education in the public schools, and later was graduated from the Philadelphia College of Pharmacy. In 1894, upon graduation from the University of Pennsylvania Medical School, he began practice in Philadelphia.

He always maintained a leading part in the wider aspects of his profession and held many

offices in various medical societies. He was intensely interested in organized medicine, and was keenly alert to maintain the traditions and ethics of the profession. In appearance he was frail but his energy was enormous.

Dr. Knowles was a member of his county society, having served on many committees, and for a long time on its Board of Directors. In 1932 he received the Dr. I. P. Strittmatter Award of the Philadelphia County Medical Society, for the year as of 1929, given at that time along with 8 other men, starting with 1923. The award was made "in recognition of years of self sacrifice in the interests of humanity and the medical profession while laboring for purer wholesome medical legislation." This was inscribed on a scroll and a medal also was presented.

At the time of his death he was trustee and councilor for the first councilor district of The Medical Society of the State of Pennsylvania and had served within 6 months of his first term of 5 years; and was also chairman of the Publication Committee. He served from 1913 to 1929 in the House of Delegates of the State Society, when he was elected trustee and councilor. At one time was vice president of the State Society. From 1915 to 1928 he was a member of the Committee on Public Health Legislation of The Medical Society of the State of Pennsylvania, and for some time was its chairman. For several years he was chairman of the Medical Legislative Conference of Pennsylvania, which was discontinued some few years ago. This Conference consisted of representatives from The Medical Society of the State of Pennsylvania, the State Institute of Homeopathy, and the State Eclectic Society, who represented these 3 groups in all matters pertaining to public health legislation in the State Legislature at Harrisburg.

A member of the West Philadelphia Medical Association (former president); the Philadelphia Medical Alumni Association of the University of Pennsylvania, (former president); and a Fellow of the American Medical Association; and some years ago was a member of the State Board of Medical Examiners.

He was assistant physician for a number of years on the staff of the Philadelphia General Hospital; physician to the Oncologic Hospital; consulting physician, Misericordia Hospital; visiting physician to the Presbyterian Home for Aged Women and the Chapin Home for the Blind.

For a number of years he served as trustee and treasurer of the State Hospital at Norristown, and trustee of the State Hospital at Allentown.

He was very active in the Medical Club of Philadelphia, having been on its Board of Directors, served a term of 5 years as governor, and for the past several years being its treasurer.

On Dec. 24, 1931, the Honorable J. Hampton Moore, who had been elected Mayor of the City of Philadelphia, appointed Dr. Knowles assistant director of the Department of Public Health, to become effective when the new administration would assume office, Jan. 2, 1932; Dr. J. Norman Henry, a warm personal friend of Dr. Knowles for years, was appointed director. From the time of induction into office Dr. Knowles gave fully of his time and energy to his duties. During the anterior poliomyelitis epidemic of the summer of 1932, he proved an indefatigable worker; day and night he was toiling in the field, constantly seeking previous sufferers of the disease to give blood for inoculation purposes. Both Mayor Moore and Director Henry expressed their sorrow, and paid a tribute as to the sterling worth of Dr. Knowles as a health official.

Dr. Knowles became ill in February, 1934, with an influenzal infection, which aggravated a heart condition, and was confined to bed for about a month previous to death.

The one lesson he never learned was the conservation of his own great energy. In a personal way, Dr. Knowles enjoyed the respect and esteem not only of his patients and lay friends, but also of his confrères. He served long and frequently, but uncomplainingly on various committees of the divers medical societies in which he held membership.

He is survived by his widow, a son, and a daughter.

JAY FRANK SCHAMBERG, A.B., M.D.

Jay Frank Schamberg, of Philadelphia, internationally known dermatologist and noted for service to science during the World War, died in his apartments, March 30, 1934, after an illness of about 2 years, in his sixty-fourth year.

Dr. Schamberg was born in Philadelphia, Nov. 6, 1870, a son of Gustave and Emma (Frank) Schamberg. He received his preliminary education in the public schools of that city, and was graduated from the Boys Central High School in 1889. He was graduated from the University of Pennsylvania Medical School in 1892, serving an 18 months' internship at the University Hospital, following which he did one year's graduate work in Paris, Berlin, and Vienna, better to prepare himself for the practice of dermatology and syphilology as a specialty upon his return to Philadelphia. Upon entering practice he re-

ceived an appointment in the dermatologic department of the Philadelphia Polyclinic and College for Graduates in Medicine, one of the outstanding graduate schools of this country at that time, and subsequently was advanced to professor of dermatology.

At various times he was professor of dermatology at the Medico-Chirurgical College of Philadelphia, the Temple University Medical School, and the Jefferson Medical College; and at the time of his death was professor of dermatology, Graduate School, University of Pennsylvania. In addition to the teaching hospitals connected with these medical schools, he had been connected with numerous other hospitals, either on the visiting or consulting staffs.

He was a member of his county medical society (president in 1931) and the State Medical Society; a Fellow of the A. M. A.; Fellow of the College of Physicians of Philadelphia; Fellow of the American Dermatological Association (former vice president and president); member of the American Association for the Cure of Syphilis; a corresponding member of the Dermatological Society of Denmark, the Dermatological Society of France, and the Argentine Dermatological Society; and a member of the Alpha Mu Pi Omega Medical Fraternity. His social clubs included the Philmont Country Club and Racquet Club.

Dr. Schamberg was a prolific contributor to dermatologic literature. One of his early contributions was an article entitled, "A Progressive Pigmentary Dermatoses" (*British Medical Journal*, 1901), as a result of which this disease is universally known today as "Schamberg's Disease." His textbooks are as follows: "Compend on Diseases of the Skin," the first edition of which appeared in 1898 and is now in the ninth edition; "Treatise on Acute Contagious Diseases" (written in 1905 in collaboration with the late Dr. William Welch, who for years was visiting physician to the Philadelphia Hospital for Contagious Diseases. This book was republished in 1928 in association with Dr. John A. Kolmer); "Diseases of the Skin and Eruptive Diseases," which first appeared in 1908 and is now out of print; and "Treatment of Syphilis" (in collaboration with Dr. Carroll S. Wright, 1932). These are authoritative works in their field.

Dr. Schamberg was an ideal research worker. In association with Dr. Goldberger of the United States Public Health Service, there was discovered the etiologic mite of "grain itch."

His outstanding service to his profession and to the American public was his leadership in developing a purer product than Ehrlich's "606,"

when importation of the latter from Germany was stopped on account of the World War. A patient of Dr. Schamberg's previous to the World War contributed a fund for the study of psoriasis; this fund was used to organize the Dermatological Research Laboratories under the directorship of Dr. Schamberg. Anticipating that in the event of war the importation of "606," which was called salvarsan, would be stopped, Dr. Schamberg deemed it expedient to provide for the emergency. As a result of his guidance, the Dermatological Research Laboratories developed a purer arsenic product than salvarsan, which was given the name arsphenamine and was sold for about one-quarter less than the previously imported product. This rendered possible the continuation of the treatment of syphilis by the Allies. In order that the preparation could be legally made and marketed the Foreign Trade Commission licensed the laboratories to operate the foreign patents on salvarsan. Notwithstanding the low price charged for the arsphenamine a considerable sum of money was realized from its sales. Dr. Schamberg with his high professional ethics would not lend himself to be a participant in the manufacturing industry and subsequently sold the laboratories to a large manufacturing concern. The money which accrued from the sale of the arsphenamine product in addition to the final disposal of the laboratories amounted to about \$750,000. This entire fund was used for the founding of the Research Institute of Cutaneous Medicine, of which Dr. Schamberg continued as director to the time of his death.

Governor Tener of Pennsylvania in 1912 appointed Dr. Schamberg a member of the State Vaccination Commission. The latter was ready at all times to give his best when vaccination was being assailed, and was never so happy, as when in combat with the antivaccinationists. He took an active part in philanthropic affairs, and was an ardent advocate of birth control and psychoanalysis.

When Dr. Schamberg's health began to show impairment in the Fall of 1932 he resigned from several medical and lay societies and clubs and gradually relinquished his practice to his associate, Dr. Carroll S. Wright, professor of dermatology and syphilology, Temple University Medical School.

Dr. Schamberg, preëminently a specialist, gave to his work something far above the technic proficiency of the specialist. He had that idealized attribute which not only made him minister to physical ills, but also made him a guide, counselor, confidant—a friend in the highest sense of the word. Those who had him for a physician were very conscious of his friendship, of his

heartly personality, of his never failing cheerfulness, and his enduring sense of humor. His intimates and those closely associated with him professionally were also very conscious of and happy in his friendship, in his enthusiasms, in his knowledge of and interest in many persons and in many things. His companionship will be widely and sorely missed.

Dr. Schamberg is survived by his widow, a daughter, and a son, a senior medical student, University of Pennsylvania Medical School.

LEWIS H. ADLER, JR., M.D.

Lewis H. Adler, Jr., died in his apartments in the Warwick, Philadelphia, March 5, 1934, in his seventieth year, from heart disease.

Dr. Adler was born in Philadelphia, April 30, 1864, received his education there and was graduated from the University of Pennsylvania Medical School in 1888, serving an internship at the Episcopal Hospital, Philadelphia. He began the practice of medicine in his native city, and early in his career showed an aptitude for proctology, and subsequently limited his practice to this specialty. He was one of the outstanding pioneer proctologists of this country, and in 1893 was appointed professor of proctology in the Philadelphia Polyclinic and College for Graduates in Medicine which at that time afforded one of the best graduate courses to be obtained in the United States. He was a charter member of the American Proctological Society organized in 1899, served as its president 1905 to 1906, and was secretary-treasurer 1907-1913. Dr. Adler was an earnest and conscientious teacher of proctology, and enthusiastic advocate of this field as a specialty. He was an extensive contributor to the literature of proctology in particular. Served as prosector to the professor of anatomy, University of Pennsylvania Medical School, 1897 to 1898, a coveted appointment. Beginning in 1904, was consulting surgeon for a number of years to the Charity Hospital.

One of the founders of the Physicians Motor Club of Philadelphia, and served as treasurer for 10 years. Was treasurer of the Medical Club of Philadelphia, 1905 to 1922, and upon discontinuing this office holding, was presented with a token of esteem and appreciation in recognition of his valiant services. He was a member of the county medical society (being a member of the Board of Censors), the State Medical Society, a Fellow of the American Medical Association, and a Fellow of the American College of Surgeons. A member of the Aid Association of the Philadelphia County Medical Society (its vice president), the J. Atkins Meigs Medical

Association, the Alpha Mu Omega Pi Medical Fraternity, the Phi Gamma Delta College Fraternity, the Union League of Philadelphia, and the Art Club of Philadelphia.

Dr. Adler was richly endowed with the qualifications necessary to make not only a scientific, human, sympathetic practitioner, but he was also blessed with the devotion, consideration, dependability, and culture which automatically result in the development of a host of friends, to whom he was affectionately known as "Lew."

Dr. Adler is survived by his widow, a daughter, and a son, Francis Heed Adler, M.D., Philadelphia.

THE PHILADELPHIA INSTITUTE FOR MEDICAL RESEARCH

The Committee on Public Relations of the Philadelphia County Medical Society, through its chairman, Dr. George C. Yeager, has released the following report.

The premier public presentation by the Philadelphia Institute for Medical Research showing the effects of thymus extract injections on animal heredity was made under the auspices of the Philadelphia County Medical Society at its stated scientific meeting on April 30, 1934.

To ascertain the function of the thymus gland, white rats of a standard strain (Wistar) have been injected with an extract of the thymus gland prepared by Dr. Adolph M. Hanson of Faribault, Minnesota. Injections have been continued through succeeding generations and the effects of injection have been noted on both the original rats and on their offspring to the fifth generation.

The third and subsequent generations of thymus injected animals, as judged from more than 200 survivors, showed a surprising rapidity of growth and development. In the third generation the average birth weight of the offspring was 15 per cent and in the fifth generation 20 per cent heavier than those born of animals not injected with thymus extract, which will hereafter be referred to as controls. The ears opened on the first and second day in the third generation, on the first day in the fourth and fifth generation, as compared with 2½ to 4 days in the controls. The teeth erupted in less than 48 hours in the third generation, in less than 24 hours in the fourth and fifth generations as compared with 9 to 10 days in the controls. The eyes opened on the fourth to the sixth day in the third and fourth generations and on the second to the third day in the fifth generation, as compared with 14 to 17 days in the controls. The animals were covered with fur by the fourth to the sixth day in the third generation, the third to the fourth day in the fourth generation, and by the second to the third day in the fifth generation, as compared with 14 to 17 days in the controls.

The growth curves of the third, fourth, and fifth generations of thymus injected rats compared with controls revealed marked acceleration with the maximum difference about the sixteenth day and approached each other after the sixtieth day. For considerable periods of time, test animals have been almost double the weight of the controls.

The time of the onset of adolescence and maturity have also been advanced in a striking manner. Thus in the fifth generation adolescence has been attained in the male from the fourth to the eighteenth day as com-

pared with the normal, 40 to 90 days, and in the female from 20 to 25 days instead of in 17 to 19 days. In addition to precocious adolescence, fertility has also been increased.

The treated animals appear unusually docile and contented, are normally active and alert. Aside from precocious growth and development, they appear normal in every respect.

This investigation has been carried on through a sufficient length of time to establish the increased acceleration of growth and development beyond question of doubt. The effects of injections when treatments are continued through 4 or 5 generations are much more marked in the offspring of the second, third, and fourth generations than those resulting from continuous injection for the same length of time confined to parents alone. It is evident, therefore, that thymus extract has accelerated the rate of growth and development, hastened the onset of adolescence, and increased fertility. It is of extraordinary interest that the effects of thymus extract become progressively more pronounced as treatment is continued through each succeeding generation, a principle which may be found to have broad application in the field of biology.

The following was the program presented at the county society meeting.

PREMIER PUBLIC PRESENTATION RESEARCH ON THYMUS EXTRACT

"The Philadelphia Institute for Medical Research," by Dr. Judson Daland, president, Philadelphia Institute for Medical Research.

"The Accruing Effects of Thymus Extract (Hanson) on Growth and Development in Successive Generations of Rats, with moving picture demonstration," by Dr. L. G. Rowntree, director, Philadelphia Institute for Medical Research.

"The Preparation and Nature of an Active Thymus Extract," by Dr. A. M. Hanson, Hanson Research Laboratory, Faribault, Minnesota.

"The Histological Findings in Rats Treated with Thymus Extract (Hanson)," by Dr. J. H. Clark, Laboratories of the Philadelphia General Hospital.

"The Blood Picture in Rats Treated with Thymus Extract (Hanson)," by Dr. John Lansbury, associate, Philadelphia Institute for Medical Research.

"The Application of Results Obtained on the Rat to Man," by Dr. H. H. Donaldson, member, Wistar Institute of Anatomy.

Immediately after the meeting a demonstration of thymus treated rats was arranged for those interested.

Dr. Judson Daland said in part: The trustees of the Institute are keenly appreciative of the Philadelphia County Medical Society in sponsoring this meeting, and believe that the future work of the Institute should be reported through this Society.

As this is the first official communication of the Institute to the profession of Philadelphia, it is proper and fitting briefly to review its past and present.

The Philadelphia Institute for Medical Research was founded, Jan. 10, 1923, by Drs. William Duffield Robinson, Charles A. E. Codman, McCluney Radcliffe, Francis X. Dercum, William C. Braisted, and Judson Daland.

On Jan. 31, 1924, a charter was granted by the Commonwealth of Pennsylvania, signed by Charles Y. Audenried, president judge, the founders, and also by Edgar Fahs Smith, and Hampton L. Carson, who later became counselor.

The charter states that the objects of the Philadelphia Institute for Medical Research are to benefit mankind, by conducting, assisting, and encouraging investigations in the sciences and arts of hygiene, medicine, surgery, chemistry, bacteriology, and allied subjects; to conduct, assist, and encourage investigations into the nature and causes of diseases in man, animals, and plants; the prevention and treatment of diseases and injuries; the development and improvement of therapeutic agents, and to make knowledge relating to these subjects available for the protection of the lives and health of the public.

The Institute was founded upon the belief that Philadelphia, a great medical center, should possess an Institute solely devoted to research; that it should be independent, not connected with any university, college, or research institute; and provide facilities, advice, and encouragement to young doctors engaged in clinical research.

In 1927, an ordinance was passed by City Council, granting the Institute a site, temporary quarters, heat, light, maintenance, and beds for clinical research, on the grounds of the Philadelphia General Hospital.

The general profession of Philadelphia are not fully alive to the fact that Blockley has been replaced by a series of modern buildings, fully equipped to care for more than 2000 patients, and offers facilities superior to similar hospitals abroad, and better than most city hospitals of the United States.

In 1933, Dr. J. Norman Henry, director of Public Health of the City of Philadelphia, assigned a building for the temporary use of the Philadelphia Institute for Medical Research. This building was repaired by the Institute, at considerable expense, and is now equipped and admirably adapted for research work. The generosity of the City of Philadelphia was not only greatly appreciated, but was most encouraging.

It is a pleasure and a duty publicly to acknowledge the many contributions, and especially the large gifts of Samuel Bell, Jr., Joseph H. Bromley, Mrs. Lillian Thatcher, of Pueblo, Colorado, and the president of the Trustees. These contributions are sufficient to finance the Institute for 5 years, but additional funds must be obtained if the work is to continue.

Dr. Leonard G. Rowntree was appointed director, and work began September, 1932. The first year was devoted to organization, and making known the objects of the Institute, and its desire to coöperate with existing medical schools and hospitals. Especial consideration was given to the staffs of the Philadelphia General Hospital.

It was decided to emphasize clinical investigation, especially as to causation, diagnosis, and treatment, from cases selected from the Philadelphia General Hospital.

Several research problems are in process of solution, but the effects of the thymus extract, upon growth and development, were so striking that this problem was given priority.

The personnel of the Board of Trustees follows: Ex-officio members: Governor of the State, Gifford Pinchot; mayor of the City of Philadelphia, J. Hampton Moore; director of Public Health, Dr. J. Norman Henry; Secretary of Health of Pennsylvania, Dr. Theodore B. Appel.

The active members are: Dr. Judson Daland, president; Dr. Charles A. E. Codman, vice president; C. Wilson Roberts, secretary; Joseph Carson, counselor; Drs. McCluney Radcliffe and John D. McLean.

**PROGRAM OF THE
CENTRAL PENNSYLVANIA CANCER
MEETING**

Jaffa Mosque, Altoona, Pa.

June 28, 1934

William H. Howell, general chairman, presiding

10:00 a.m.

Address of Welcome by George E. Alleman, president,
Blair County Medical Society.

Response by Donald Guthrie, president, The Medical
Society of the State of Pennsylvania.

10:15 a.m.

"Aschoff Index in Malignancy," Joseph A. Hepp, Pitts-
burgh.

10:30 a.m.

"Indication for Biopsy," Albert J. Bruecken, Pittsburgh.

11:00 a.m.

"Tumor of Testicle," Maxwell Lick, Erie.

11:30 a.m.

"Cauterization of Cervix," Bender Z. Cashman, Pitts-
burgh.

12:00 m.

"Medical Management of the Cancer Patient," Thomas
G. Simonton, Pittsburgh.

1:00 p.m.

Luncheon at Jaffa Mosque

2:00 p.m.

Sectional Meeting (Radiologists).

Sectional Meeting (Pathologists).

"Is Cancer Curable," Samuel J. Waterworth, Clearfield.

2:15 p.m.

"Recent Developments in Our Knowledge of Cancer,"
Harold L. Foss, Danville.

2:45 p.m.

"Value and Limitation of Roentgen Ray and Radium,
in the Treatment of Cancer, Particularly in Advanced
Cancer," Bernard P. Widmann, Philadelphia.

3:15 p.m.

"Cancer Problem," George W. Crile, Cleveland, O.

6:30 p.m.

Banquet at Jaffa Mosque (public invited)

Speakers for the evening will be George W. Crile,
Cleveland, Ohio, and Claude C. Lytle, New York.

COMMENTS AND EXCERPTS

Science and Research

According to *Science News Letter*, Dr. Valy Menkin, of Harvard Medical School, has found that rabbits suffering from experimental tuberculosis live much longer if doses of ferric chloride are injected into their veins.

Dr. Menkin states that whereas animals without the iron salt treatment live on an average 81.4 days after infection with tuberculosis, the average life span of the animals treated with the iron salt was 198 days.

A group of leaders in the field of tropical medicine recently met at the National Academy of Sciences, Washington, D. C., to organize the American Academy of Tropical Medicine, and elected Dr. Theobald Smith president. The purposes of the Academy are: To

further the extension of knowledge of tropical medicine; to coordinate the work of American investigators in this field; to function as a central source of information and to receive funds and administer them through grants-in-aid and in support of research.

Dr. Richard L. Jenkins and Esther Glickman, of the Chicago Institute for Juvenile Research, before a meeting of the American Orthopsychiatric Association, gave proof of the long suspected fact that injury to a child's brain at birth will affect the mentality. Dr. Jenkins described two, identical twins, Italian girls, one of whom suffered a head injury at birth; the twin sister did not. The injured child is slightly duller than her sister and is a year behind her in school. The physical signs of the injury are only a slight tendency to the nervous movements typical of chorea. The normal twin gives a picture of the development of a genetically identical individual in the same home environment without the physical handicap.

In an address before the Annual Congress on Medical Education, Licensure, and Hospitals, Dr. W. W. Bauer, of the American Medical Association, said: "The time has definitely gone by when a patient will blindly take 3 pink pills in half a glass of water before meals and 4 green pills in a third of a glass of water before bedtime without having the slightest idea what may be wrong with him and why he is being advised as he is." Though Dr. Bauer granted that too much medical information does arouse neurasthenic tendencies in the morbid, this disadvantage is outweighed by benefits from health education. These include a better appreciation of medical science, better understanding of difficulties involved in diagnosis and treatment, more interest in scientific research, and livelier appreciation of hygiene, diet, and medical supervision in health. And since the public has awakened to a keen curiosity about its health it is up to the physicians to supervise the health education of the layman, seeing that it is done sanely, wisely, and conservatively.

Dr. E. W. McHenry, of the University of Toronto School of Hygiene, in a report to the *Canadian Medical Association Journal*, calls attention to turnip juice as an inexpensive source of vitamin C. The comparative cost of vitamin C units in turnip juice, in lemon juice, orange juice, and tomato juice are: One cent will buy 1100 vitamin C units from turnip juice; 180 from lemon juice; 220 from orange juice; 170 from tomato juice; 180 from canned tomatoes. The juice from raw turnips is sweet and not unpalatable.

MEDICAL ECONOMICS

Reich will Shorten Physicians' Training.—According to the *New York Times*, the regular schools of medicine have paid too little attention to the work of the nature of healers. So have the faculties of the universities, and the physicians and teachers bear a part of the blame for the fact that there are so many quacks in Germany. This is the conclusion of Dr. Wagner, of Munich, leader of the physicians' section of the German Labor Front, expressed at a meeting of the physicians and druggists. The nature healers, he declared, have a much greater following than is generally realized, and thus, while the present situation is intolerable, no general prohibition can be considered. The plan is to impose certain restrictions on them, especially by way of forbidding them to lecture or to travel from place to place to treat patients.

No more nature healers will be licensed for 5 years, and in the meantime the course of regular medical study will be basically altered. The chief aim will be to shorten the time required for training physicians, so that the graduate shall be able to start practice when he is age 25, and establish a family. It is planned further to require every newly admitted physician to practice for a year as assistant to a country doctor. The study of medicine by women is to be greatly restricted.

The organization of the Physicians' Chamber has been worked out, and it will come into existence early in 1934. It will be a self-governing body with its own courts, and all physicians will be compelled to belong to it. A sliding scale of fees is also proposed, but in respect to the doctors themselves, not to their patients. That is, unmarried physicians are to receive smaller fees than their married colleagues.

[Naturally we are in full accord with the restrictions placed on the nature healers; and if no nature healers are registered during the next 5 years ample time may be afforded for the more definite consummation of plans for the possible abolishment of this group. The shortening of the time required for obtaining the degree of M.D., no doubt will be a deterrent to such graduates seeking licensure in America. The plan to require newly admitted physicians to practice for a year as assistant to a country doctor is to be commended. This plan will afford the young practitioner an opportunity to acquire the art of medicine, under a laudable preceptor system; and in return the recent graduates carry to the rural districts the latest in scientific medicine, which should prove to be a valuable postgraduate course to the country doctors; each year bringing the up-to-date teaching of the medical centers. We cannot condone under any circumstances placing any restriction on women as to the study of medicine. A man is worthy of his hire; but if an arrangement has been initiated by the medical profession whereby a sliding scale of fees has been agreed upon that the unmarried physicians are to receive smaller fees than their married colleagues, then we have no comment to make.—EDITOR.]

Will Private Insurance Companies Sell Group Hospitalization?—Will private insurance companies, organized for profit, sell group hospitalization, or hospital insurance?

In the southwest a variation of this idea is reported, the establishment of an insurance company to pay for hospital service for its members, according to a schedule of fees accepted by several hospitals. One superintendent, whose hospital is a member of this plan, recently said that the establishment of the company was suggested and encouraged by the hospitals because of difficulty that beset their efforts to form an organization for group hospitalization purposes, due to rulings by the attorney general that such an activity came under state insurance laws. It is interesting to learn that the hospitals in the group have agreed to care for patients for \$3 a day.

During the A. M. A. conference in Chicago, in February, an informal meeting of those interested in group hospitalization was held, and at this meeting Dr. Herman Smith, director, Michael Reese Hospital, Chicago, stated it was his opinion that if private insurance companies wanted to enter the field of group hospitalization, it might be well for hospitals to utilize their services rather than to attempt to organize sales agencies of their own. He contended that the principal function of the hospital is to render service to patients, and that it was not the duty of a superintendent

to organize and supervise a sales agency. Moreover hospitals were not interested in group hospitalization as a profit-making venture, merely seeking cost for service rendered, and so the hospitals ought to welcome any company that would take off their shoulders the troubles and responsibilities of selling group hospitalization, and at the same time would provide hospitals with the cost of service rendered under the plan.

On the other hand, efforts to establish group hospitalization plans under the sponsorship of hospitals are being continued in different sections of the country. In Cincinnati, it recently was reported that the local Academy of Medicine had recommended that a committee of the academy be named to cooperate with a group of private hospitals in working out a group hospitalization program. It was reported that Bethesda, Good Samaritan, Jewish, St. Mary, Christ, and Deaconess Hospital would cooperate in the program.

In Michigan, it was reported that a group of hospitals in Grand Rapids was to ask the state legislature to pass a bill authorizing the establishment of a group hospitalization program.

In Boston, progress was reported on a plan in which a number of local institutions were to participate.

At the informal meeting referred to, reports of progress and activities were made from Decatur, Ill.; Cleveland, O.; St. Paul, Minn.; Des Moines, Ia.; and elsewhere.

Discussion centered about opposition by officers of medical societies, but it was intimated that in a number of localities individual physicians favored such a plan of helping wage earners to pay their hospital bill. Several speakers reported that opposition of the doctors was found to be grounded on misinformation, and when the facts were set forth this opposition disappeared.

Suggestions that were developed by the informal conference were that a master contract be drawn up by the American Hospital Association to guide hospitals in communities planning group hospitalization, and that the American Hospital Association give tangible approval and endorsement to plans which met its requirements. In the latter connection, it was pointed out that the American Hospital Association's recommendations for an approved plan frequently were quoted, but the actual plan offered differed from these recommendations in important ways. Another suggestion was that a central office should be set up to gather figures regarding the operation and costs of group hospitalization in order that the experience of the different plans might be made available to all interested.—*Hospital Management*, March, 1934.

The Washington D. C. Insured Hospital Service Plan.—Hospital care will be furnished up to and including 21 days within each contract year during the time that this certificate is in force; such care may be given on one or more admissions, provided the aggregate days in any contract year shall not exceed 21. Additional hospital care in excess of the stipulated 21 days, if needed, will be furnished to the subscriber by the hospital at a discount of 10 per cent from the regular hospital charges for accommodations similar to those provided for in the contract.

Services shall be rendered under this agreement only upon the authorization and request of the subscriber's physician, who must be a member of the medical staff or council of, or acceptable to the selected hospital. Hospital care shall continue only during the time that the subscriber is under the treatment and care of such physician in accordance with his staff privileges at such hospital, and will end at the time that the subscriber is

discharged as a hospital patient by his physician. After the date of such discharge the subscriber will be responsible to the hospital for payment of its regular charges if he remains in the hospital.

The Hospital Service Plan is one which seeks to enable the subscribers to budget for their hospital care. For a small periodic payment, it offers to its subscribers hospital care aggregating 21 days (if needed) in any contract year. Group Hospitalization, Incorporated, is a medium through which individuals subscribing to the plan may be provided with hospitalization by hospitals also subscribers to the plan.

Hospital care shall be construed to mean:

a. Bed and board, general nursing care, use of the operating room, surgical dressings, ordinary medications and routine laboratory examinations.

b. Obstetric cases, including nursery care, which class of cases can only be received after the first 10 months of the existence of this agreement.

The benefits offered by this agreement do not include the services of the subscriber's attending physician or surgeon, radiologist, pathologist, physical therapist, anesthetist, special nurses or their board.

Hospital care for pulmonary tuberculosis (after diagnosis as such), newly acquired cases of venereal diseases, quarantinable diseases, alcoholic or drug addicts, mental disorders, or hospital care provided for under the Workmen's Compensation Law are not included in the benefits offered by this agreement.

To be eligible to subscribe and contract for the services offered under this plan, a person must be:

- a. Regularly employed.
- b. In sound health.
- c. Under the age of 65 years.
- d. In an occupation approved by Group Hospitalization, Incorporated.

A subscriber who leaves the employ of the concern in which he has participated in this agreement may retain his privileges if, within 30 days, he is reemployed or secures employment in another firm which has a group participating in the plan; in this event, he may have his benefits continue with payments being made on the same basis as the other participants of such group.

To be eligible as a hospital to participate in the plan, a hospital must:

- a. Be approved by the Medical Society of the District of Columbia.
- b. Not engaged in the corporate practice of medicine according to the common use and interpretation of this term.
- c. Bind itself not to join or engage in any agreement with any other group hospitalization organization.—*Pittsburgh Medical Bulletin*, March 17, 1934.

Additional Articles on Medical Economics
Washington County—page 707.

HOSPITAL ACTIVITIES

Honoring Staff Men.—The chief surgeon of a large eastern hospital in his recent annual report urged some form of recognition of the services of the men on the staff. "I wish to plead for the proper recognition of the men who have faithfully served the hospital," he wrote. "As is the custom in many hospitals in all parts of the world, their names and date of service should be inscribed on a suitable marble tablet placed near the en-

trance hall, so that all may know of their work and thus it will be an inspiration to those who follow in their footsteps."

Stability of U. S. P. Ether After the Metal Container Is Opened.

—According to an article in the *J. A. M. A.*, a study by H. and D. Gold shows that: (1) U. S. P. ether in metal cans, as it is supplied in this country at the present time by the better known manufacturers, does not deteriorate rapidly under ordinary conditions when the metal containers are opened. The present study shows that the can may be opened and again stoppered with cork many times during periods of weeks without oxidation detectable by the U. S. P. tests.

(2) There is no evidence that ether specially purified "for anesthesia" has any material advantage over ordinary U. S. P. ether for anesthetic purposes.

(3) It is recommended that hospitals buy ordinary U. S. P. ether in large steel drums and that for anesthesia the operating room be supplied with ether in small tin cans filled daily from the drums by the hospital pharmacist. The ether in the drum may be tested daily for aldehydes and peroxides, there being very simple tests for each requiring only from 5 to 10 minutes to perform. This would help not only to correct an erroneous view regarding the speed of deterioration of ether after the container is opened, but to abolish the extravagant practice of buying ether in hundreds of ¼- or ½-pound cans at from 4 to 6 times the cost of ether in drums, when large quantities of ether for anesthesia are used.

Selecting Undertakers.—Recently *Hospital Management* published the following comments from hospital superintendents regarding the policy of their institutions in selecting undertakers when relatives have no choice: "We have 6 undertakers in Evansville and they are scheduled for a 2-months' period of service. These men are always called during their period of service when the relatives do not request a particular undertaker. The advice of the hospital is sought in only about 4 per cent of the out-of-town cases."—*Albert G. Hahn, Deaconess Hospital, Evansville, Ind.*

"The hospital has very little influence in the selection of an undertaker. Its advice is sought in perhaps one per cent of the deaths. We have no routine procedure in regard to the handling of requests for information about undertakers."—*Sister Mary Julia, John B. Murphy Hospital, Chicago.*

"This hospital has what we call an official undertaker, to whom we refer people who have not already made a choice. We do not try to influence relatives, nor do we have any routine procedure in regard to the handling of requests for information, except that they are all referred to the room clerk who has to fill out a death certificate for the health department."—*Asa S. Bacon, Presbyterian Hospital, Chicago.*

"The hospital does not use its influence in the selection of undertakers. Very rarely is it ever asked for reference. However, when an inquiry is made and which usually comes from a family from out of town, we routinely refer them to the firm which handles all the ambulance service for this hospital."—*J. Dewey Lutes, Ravenswood Hospital, Chicago.*

"Advice as to undertaker is sought only now and then where deceased has no near-by relatives. It is the policy of our hospital not to interfere in the selection of undertaker."—*J. W. Meyer, Copley Hospital, Aurora, Ill.*

"We occasionally advise in the selection of an undertaker. However, we do not recommend unless asked

for advice. It is only in about 1 per cent of deaths where we are called upon. Routine procedure is to refer such inquiries to the office for attention and our office employes are instructed to recommend one or both of the undertakers which we favor."—*E. I. Erickson, Augustana Hospital, Chicago.*

"The family usually calls in their own undertaker. However, the doctor sometimes knows the relatives' wishes. There perhaps may be one case a year in which we are asked to help select the undertaker."—*Sister Alphonsina, St. Elizabeth's Hospital, Chicago.*

PHYSICAL THERAPY

Fever Therapy

There has been a growing interest, on the part of physicians practicing therapy, in the treatment of disease by the use of artificial fever, produced by physical means. An April 27, 1934, a group of prominent physicians met at Columbia Medical Center, New York City, for the Fourth Annual Fever Conference. Much interesting data should come from this conference.

It now seems certain that fever produced by physical means is a safe measure and that it holds promise of being a valuable procedure in the treatment of certain chronic diseases. The trend is away from the production of fever by high frequency electric currents, either by diathermy or short radio waves and toward the fever production by means of heated cabinets of various types.

There are several types of cabinets now in use, all of which will produce fevers. Among these may be mentioned the light cabinet used by Dr. Stafford L. Warren; the cabinet containing heating elements in its base; the cabinet which contains a mistlike hot water spray; and finally the air-conditioned cabinet developed by Dr. Walter Simpson. The latter 2 are particularly satisfactory for fever therapy work. The nebulized spray cabinet is the most pleasant method of producing fevers. The air-conditioned cabinet is most satisfactory for producing prolonged high fevers. It is quite easy with this device to maintain the temperature routinely at 106° F. for 5 hours.

Like all new methods of treatment, artificial fever therapy is being recommended for a multitude of diseases. These include cerebrospinal syphilis, gonorrheal arthritis, chronic pelvic inflammatory disease, rheumatoid arthritis, multiple sclerosis, bronchial asthma, chorea, Parkinson's syndrome (postencephalitic), etc. It is extremely unlikely that fever therapy produced by physical means will prove of value in all these conditions, nevertheless, the careful scientific investigations now being conducted in this field will disclose, within the next year or two, the exact sphere of usefulness of this new method of treatment. It appears to have considerable promise.

Physiologic Effects of Diathermy Current.—Claude Saberton, in *Diathermy in Medical and Surgical Practice*, claims that the artificial general pyrexia resulting from diathermy treatment differs from ordinary pyrexia in that it is not produced by toxins circulating in the blood. After cessation of the treatment, the heat regulating mechanism quickly eliminates the excess of heat, and the temperature returns to normal. Certain tissues, however, such as the bones of the wrist joint, which readily become heated in hand-to-hand diathermy, retain their heat for a considerable time, and give it up slowly to the circulating fluids of the body.

Acrobatic Aviation.—The Medical Section of the Aeronautics Branch of the Department of Commerce, after careful investigation, has announced that "it is highly probable" some cures have been made by airplane flights, although "in all cases the same results might have been obtained through the use of a compression chamber and the entire test conducted by a physician. In this manner other dangers caused by excessive pressure changes may be eliminated."

Nevertheless, if the physician of a person afflicted with deafness or other physical defects advises an acrobatic airplane flight as a possible means of cure, it is possible now for the commercial pilot to obtain a waiver for such a flight. The Department of Commerce until recently prohibited the flying of passengers acrobatically for hire. Waivers should be obtained in advance of the flight, however, and the application for waivers should be made direct to the Department of Commerce field inspectors or to headquarters of inspection districts. Except in the matter of prohibiting the carrying of passengers acrobatically for hire, the waivers require that all rules in regard to airplane acrobatics be observed.

MEDICOLEGAL NOTES

Death Caused by Status Lymphaticus.—A girl age 16, who was employed in a factory, injured her foot when it was struck by the point of a pair of scissors that dropped upon it. She consulted a certain physician who on examination found that she had a punctured wound and laceration on the dorsum of the foot. The doctor applied a wet dressing of chloramine and a sterile gauze pad and then bandaged the foot. He also injected into the arm of the patient 15 units of tetanus antitoxin. The preparation which he so used had been obtained by him in ampule form from the local board of health. The injection was made with the usual antiseptic precautions. The patient left the doctor's office, and the next he heard of her was that within an hour or so after she left his office she had dropped dead on a near by subway platform.

Necropsy, performed by the medical examiner, showed that death was caused by status lymphaticus.

An action was brought against the doctor by the administrator of the decedent, charging that negligence on the part of the doctor caused the death.

The case came on for trial before a judge and jury and after the issues had been submitted to the jury a verdict was rendered in favor of the defendant.—*New York State Medical Journal*, Feb. 1, 1934.

Medicinal Whisky.—The Food and Drug Administration has issued a statement intended to clarify the specific requirements of the Federal Food and Drugs Act as they apply to medicinal whisky. This announcement in no way conflicts with the labeling regulations covering beverage whisky, but shows that whisky sold for drug purposes is subject to requirements which do not apply to an article intended exclusively for beverage use.

The definition for whisky in the U. S. Pharmacopœia is more rigid than the definition for "straight whisky," in that Pharmacopœia whisky must be aged 4 years in charred wood containers, and its alcoholic content must not be less than 46 per cent and not more than 53 per cent by volume of absolute alcohol. Medicinal whisky which does not conform to the pharmacopœial standard must be labeled to distinguish it from the official product.

The text of the ruling follows: A drug sold within the jurisdiction of the Federal Food and Drug Act as "Whisky," "*Spiritus Frumenti*," or "*Sp. Frum.*" must comply exactly with the definition for "whisky" in the U. S. Pharmacopœia and otherwise satisfy the provisions of that authority for "whisky." It must be labeled with a statement of the quantity of alcohol in terms of the percentage by volume of absolute alcohol.

A drug varying from the Pharmacopœial specifications for "whisky" in strength, quality, or purity (but not in the identity of its constituents or of the materials from which it is made) may be sold as "Whisky not U. S. P." if the label carries a declaration of its own standard of strength, quality, and purity. It may be (1) an article conforming to the definition in the U. S. Pharmacopœia except within respect to time of aging, percentage of alcohol, and content of acids and esters, or (2) a mixture of (1) with grain alcohol or grain alcohol and water, or (3) a mixture of U. S. P. whisky with grain alcohol and water. It may not contain alcohol from nongrain sources nor may it contain any substance not present in U. S. P. whisky.

Diluted alcohol (from whatever source) with or without artificial flavor and color, is not entitled to the name "whisky," however qualified, if sold as a drug; but may be sold as a drug under any other name which is not false or misleading in any particular.

INDUSTRIAL MEDICINE

Teaching of Industrial Hygiene.—Leverett D. Bristol, of New York City, states that of 85 medical and public health schools in the United States and Canada covered in his study, information has been received from 66 with reference to the teaching of industrial hygiene; of the 66, only 13 schools give separate courses in industrial hygiene; 24 medical schools assign one or more separate lectures to industrial hygiene in their general public health or hygiene courses; 18 schools give only brief attention to industrial hygiene, and another 21, together with a number of schools unheard from, apparently give no instruction in this subject. Field visits to industrial plants for inspections and surveys should be to the teaching of industrial hygiene what hospital ward rounds are to the teaching of clinical medicine; 15 schools report that they make such field trips available. Medical and public health schools that give instruction in this subject should cultivate the friendly coöperation of local industries in order to enhance their facilities for field training of students in industrial hygiene. Instruction in industrial hygiene, including industrial medicine, industrial sanitation, industrial toxicology, and other subjects, at least in graduate schools of public health and when economically feasible, should be organized under one separate, independent department of industrial hygiene with a full time professor as coördinator and director. He should be a physician with experience in industrial health administration, and in the larger universities he might also serve as the director or teacher of courses on this subject in medical, nursing, business or other schools. Detailed subject matter and methods of teaching industrial hygiene must be based on local conditions, facilities and needs as well as on knowledge of the elements of an adequate industrial health program. Industrial hygiene should involve primarily a program of health conservation and of disease and accident prevention. It is a matter of preventing the common diseases and mishaps of adult life and of building up positive health and encouraging the development of proper health hab-

its among working people in general. Industrial hygiene, including industrial medicine, will become what physicians and medical educators help the business man and industrial worker to make it. In this connection, opportunities and responsibilities are unlimited for the development of the right sort of leadership among future generations of medical students.—*J. A. M. A.*, March 31, 1934.

PUBLIC HEALTH

Venereal Disease.—For several years the U. S. Public Health Service has published, for the information of physicians, health officers, and others, a monthly abstract journal known as *Venereal Disease Information*. This publication contains usually one original article on a subject of general interest in connection with the venereal diseases and numerous abstracts from the current literature pertaining to these diseases. In the preparation of this abstract journal more than 350 of the leading medical journals of the world are reviewed and abstracts made of the articles on this subject.

The cost of *Venereal Disease Information* is fifty cents per annum, payable in advance to the Superintendent of Documents, Government Printing Office, Washington, D. C. It is desired to remind the reader that this nominal charge represents only a very small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its program with state and local health departments directed against the venereal diseases.

Women Excel Men in Stamina.—To quote from an editorial published in the *Philadelphia (Pa.) Inquirer*: "Can it be true that the weaker sex is the stronger, and boastful, roistering man, on the average, physically inferior to the quiet little woman, who does the home chores? If the unemotional statistics, covering 300,000 cases, compiled by the Mayo Clinic, prove anything it is that the women can take it better than the men.

"When indignant males cite Jim Londos, Jack Dempsey, Jimmy Foxx, and Red Grange to show the strength and endurance of their sex, the Mayos calmly quote from their chart that men are more frequently victims of lung, kidney, digestive tract, brain, and functional disorders than are women.

"Apparently the time has come when men should investigate at once the merits of literary lectures, afternoon bridge parties, lunches of a chocolate éclair and ice cream sodas; high heels, and backless Tuxedos. If this way lies the path to vigor, they must set forth bravely."

Health Pools.—Pennsylvania is planning a chain of water pools with which to fight anterior poliomyelitis as it is fought in Warm Springs, Ga., the place at which President Roosevelt regained his health.

Dr. Theodore B. Appel, State Secretary of Health, announced a pool has been put into use at Mt. Alto. Others are contemplated at Elizabethtown and Cresson.

Patients are aided in regaining the use of their limbs by the water treatment in which the pools are used. The new crusade against anterior poliomyelitis has just begun, Dr. Appel said, and the speed with which the program can be carried out depends upon the financial aid the department is able to obtain. The matter will probably be laid before the 1935 Legislature. In addition to the pools, a new tuberculosis sanatorium and additions to 3 institutions are planned. The projects, involving an expenditure of \$1,614,000, are contemplated under the \$14,000,000 loan and grant application filed

by the State with the Public Works Administration. The new sanatorium is to be built in Health Township, Jefferson County, and will cost approximately \$800,000. Other Health Department projects are 2 diagonal wing hospital units at the Elizabethtown Hospital for Crippled Children, \$415,000; infant building at Cresson Sanatorium, \$35,000; 2 dormitories and connecting link at Mt. Alto Sanatorium, \$364,000.

Psittacosis Problem in Pittsburgh

The program of the March, 1934, scientific meeting of the Allegheny County (Pa.) Medical Society was devoted to a discussion of Pittsburgh's current psittacosis problem. In recognition of the seriousness of the local health situation, as involved in the epidemic of parrot fever, approximately 600 physicians from all parts of the county were in attendance.

The presentation of the historic phases of this imported, formerly rarely-occurring, epidemic disease, now known to have become endemic in the United States through birds of the psittacine family bred in California, and the clinical history of the case reported by I. Hope Alexander, was classical. The information contained in Dr. Alexander's paper, supported by the necropsy findings in his case and one other subsequent case as recited by Robert C. Hamilton, pathologist at Passavant Hospital, Pittsburgh, convincingly substantiated the symptomatology as previously related.

At the conclusion of the scientific discussion the members present unanimously approved the following resolutions which had been previously adopted by the Board of Directors of the Allegheny County Medical Society:

WHEREAS, The Allegheny County Medical Society recognizes that the present epidemic of psittacosis has reached serious proportions; therefore be it

Resolved, That the Allegheny County Medical Society, in regular session, March 20, 1934, request the Department of Health of the City of Pittsburgh to furnish immediately to the Society all available information regarding the present epidemic of psittacosis so that the physicians of this community may better cope with the situation; and further be it

Resolved, That the Allegheny County Medical Society request the Department of Health of the City of Pittsburgh to provide immediately isolation facilities for the purpose of proper segregation and care of patients suffering from psittacosis; and further be it

Resolved, That the Allegheny County Medical Society continue to extend all its facilities to the Department of Health in its effort to control the present epidemic.

The director of health of Pittsburgh issued the following order:

March 21, 1934.

Dr. P. E. Marks, Supt., Bureau of Infectious Diseases, Department of Public Health.

In consideration of the resolution passed by the Allegheny County Medical Society, as of March 20, 1934, copy of which is herewith attached, you are hereby ordered to arrange for all information and facilities complying with the resolution. This will include all material and help needed.

RAY P. MOYER, M.D., *Director*.

Dr. Marks the same date communicated with President George W. Grier requesting the appointment of a committee from the Allegheny County Medical Society to confer with him, and Dr. Grier appointed the following committee: I. Hope Alexander, *Chairman*; Walter F. Donaldson, and W. W. G. MacLachlan.

This committee, after holding an organization meeting, conferred on two occasions with representatives of the City Department of Health. As a result of the deliberations, conclusions and recommendations, which were concurred in by representatives of the Department of Health, were promulgated as follows:

First and most important, the epidemic of psittacosis is definitely under control. The Department of Health is making every effort not only to keep the epidemic under control, but to eradicate the disease from our midst. All birds of the psittacine family in stores and shops of Pittsburgh have been destroyed. Efforts to trace birds sold in Pittsburgh since Jan. 1, 1933, are being continued in an effective manner. Segregation facilities have been provided at the Municipal Hospital for psittacosis cases which can not be cared for properly at home.

This committee has received utmost coöperation from the Department of Health in its efforts to comply with the requests contained in the resolution adopted March 20 by the Allegheny County Medical Society.

Recommendations

1. All birds of the psittacine (parrot) family brought into Pittsburgh since Jan. 1, 1933, should be destroyed. This limitation is fixed because of authoritative information that parrots are known to have been carriers of the disease for many months. In one case, a parrot infected a human being 14 months after the parrot had recovered from psittacosis. In another case, the interval was 8 months.

2. All birds of any species which were housed in the same store as those of the psittacine family since Jan. 1, 1934, should be destroyed. This recommendation applies to those now remaining in the store as well as those purchased and taken elsewhere. The regulation is suggested because other species of birds, including the canary family, are known to be susceptible to psittacosis.

3. The transportation into Pittsburgh of all birds of the psittacine family should be prohibited.

4. The owners of birds of the psittacine family should be required to register with the Department of Health all such birds. If paragraph number one of these recommendations is adopted by Council of the City of Pittsburgh, this regulation would apply only to birds brought into the city prior to Jan. 1, 1933, since all others will be destroyed.

5. The owners of birds should be required to notify the Department of Health immediately upon the illness or death of any bird of the psittacine family.

The following editorial appeared in the *Pittsburgh (Pa.) Sun Telegraph*, March 22, 1934:

COMMENDABLE PUBLICITY

The Medical Society Is to Be Congratulated on Its Psittacosis Policy

In gratifying contrast to the reticence of Public Health Director Ray P. Moyer in respect to the parrot fever outbreak is the policy pursued by the Allegheny County Medical Society.

It was from the society's magazine, the *Pittsburgh Medical Bulletin*, that the people of this city first learned of the appearance of the disease here, and at its meeting Tuesday night (March 20), to discuss the situation, no disposition was shown to forbid publication of the proceedings, but on the contrary the newspapers were aided and encouraged to publish them.

The society thus expressed its confidence that the people, if given full information about a dangerous condition, can be depended upon to conduct themselves prudently.

It is the "hush-hush" policy such as Director Moyer has been pursuing that makes trouble. First it prevents the adoption of adequate control measures, and then, when the news gets out—as it almost invariably does—such a policy of secrecy makes the people suspect that the situation is worse than it really is and so tends to breed panic.

We congratulate the Allegheny County Medical Society on its frank presentation of the case and on its zeal and diligence to protect the people's health.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

AS EARLY as 1884, Weichselbaum described the presence of acid-fast bacilli in the blood of tuberculous patients. Scores of workers have since identified tubercle bacilli in the blood of patients with various forms of tuberculosis. A few have reported the occurrence of tuberculous bacillemia in cases with no evidence of tuberculosis. Löwenstein particularly claims to find tubercle bacilli in the blood in many nontuberculous clinical conditions. Pronouncements based on such reports have led to the hypothesis that many clinical conditions of doubtful etiology are of a tuberculous nature. What evidence is there to support this doctrine? Tuberculous bacillemia was studied by G. S. Wilson and his collaborators. Their report was published as a 150-page brochure by the Medical Research Council of Great Britain. High points of the report are here quoted.

TUBERCULOUS BACILLEMIA

Marked discrepancies occur in the results of workers who have endeavored to demonstrate the presence of tubercle bacilli in the blood by microscopical examination. Some have failed to find tubercle bacilli even in advanced cases of tuberculosis while others claim to have found them in every case of pulmonary and nonpulmonary tuberculosis examined, as well as in a high proportion of patients suffering from nontuberculous disease and of perfectly healthy persons.

The microscopical technics employed show two main sources of error: (a) Confusion caused by artifacts such as fibrin threads, partly disintegrated leukocyte granules, lipid portions of the red cell envelope, *etc.*, and (b) confusion caused by contamination of the preparations with saprophytic acid-fast bacilli, which are frequently present in tap and in old distilled water and in reagents made up with them.

A surprising degree of discrepancy is noted also in the results of different workers who have endeavored to demonstrate the presence of tubercle bacilli in the blood by the guinea pig inoculation method. These discrepancies are undoubtedly attributable to faulty diagnoses of the inoculated animals, based on insufficient grounds. The animal inoculation method, however, as practiced by capable workers is probably the most reliable means of demonstrating the presence of virulent tubercle bacilli. Records of those workers, whose competency seems to be assured, revealed that only a small number of positive results have been obtained, most of which have been with blood from patients suffering from

miliary tuberculosis, tuberculous meningitis, advanced pulmonary tuberculosis and occasionally surgical tuberculosis.

Löwenstein has worked out a technic of blood culture with which he has been able to obtain a surprisingly high proportion of positive results, not only in definite cases of tuberculosis but in a number of diseases, the tuberculous nature of which is not generally recognized. The investigators found it difficult to analyze and evaluate the work on which this claim is based. They point out numerous anomalies and contradictions in the results obtained by Löwenstein and subsequent workers who endeavored to duplicate his technic. One of the greatest difficulties encountered was the incomplete and confused nature of the records published by Löwenstein.

Conclusions

The investigators conclude without equivocation that tuberculous bacillemia, except in patients suffering from advanced and grave disease, is a rare and sporadic phenomenon.

"In diseases such as articular rheumatism, polyarthritis, chorea, multiple sclerosis, schizophrenia, retrobulbar neuritis, Hodgkin's diseases, and certain affections of the skin, which are not accompanied by gross lesions of tuberculosis, there is practically no evidence that a tuberculous bacillemia ever occurs, nor are there any sound reasons to suppose that the tubercle bacillus plays any essential rôle in their etiology."

Tuberculous Bacillemia, G. S. Wilson, Medical Research Council, London.

PROGRESS in tuberculosis control and treatment is well reflected in the annual reports of sanatoria that come to hand. One such report is that of the Tuberculosis Service of Bellevue Hospital, New York City, for 1933, prepared by James Alexander Miller, physician in charge. A few excerpts of particular interest follow.

MODERN TUBERCULOSIS SERVICE

The Service is divided into four main groups: (1) The Wards, (2) Out-Patient Clinic, (3) Day Camp, and (4) Settlement House. The 4 wards, with a total normal capacity of 174 have been overcrowded, the winter census running as high as 240. During 1933 there were discharged 2280 cases of tuberculosis and 533 cases of non-tuberculous conditions. About 15 per cent of the patients are convalescent and ambulant, 35 per cent are chronic bed cases, and 50 per cent are acute cases. The cases admitted include an average of 15 to 20 per cent of patients with chronic lung diseases who are found not to have tuberculosis. These are not discharged because of their nontuberculous condition but receive special treatment.

Collapse therapy is changing the whole trend of the care of the tuberculous. Approximately 40 per cent of all cases of pulmonary tuberculosis are benefited by some form of collapse therapy. An average of 27 pneumothorax treatments per day are given. One hundred thoracoplasty operations were performed during the year.

Out-Patient Work

The Out-Patient Department admitted last year 2063 cases. The rotation of physicians between the Ward and Out-Patient Department services makes coöperation between the two effective. An important new field of activity has been the pneumothorax clinic for ambulatory cases. During 1933, 3329 pneumothorax treatments were given. This work has opened up a new field of medical effort for it enables many patients to stay at home while continuing their treatment and at least one-fourth of them are able to continue at work. This increasing class of cases is another striking evidence of the change of emphasis from one on health resort and sanatorium treatment to home and institutional treatment in centers of population.

A very important feature of the Out-Patient Department is the supervision of home conditions through the visiting nurses of the city and the

bringing in of contacts for examination. The children's clinic is largely constituted of this class of cases. The provision of material relief by the proper agencies is not neglected.

The Day Camp for cases that do not need full sanatorium care is really a floating hospital moored in the river adjoining the hospital grounds. During the year the census of the day camp has averaged 30 men, 15 women, and 75 children. The maintenance expense is comparatively small but the results have been extraordinarily satisfactory.

Bellevue Settlement House, which has a capacity of about 22, renders a very useful service for girls with tuberculosis who are without suitable homes, either while waiting to go to, or after returning from, a sanatorium. The entire expense of the Settlement House is borne by private funds through the Women's Auxiliary.

Supplementary Services

Collateral activities of the Bellevue Tuberculosis Service include: (1) Education in chest diseases for undergraduate and postgraduate students. (2) Special training of the medical staff. (3) Social Service, including the activities of the Women's Auxiliary. (4) Coöperative efforts in the development of modern chest surgery. (5) Pathologic and clinical laboratory work, including scientific research. (6) Contributions to medical literature.

The Service is chronically overcrowded and overworked. All patients who apply to the hospital must be admitted and since the total number of tuberculosis beds in New York City as a whole has been markedly diminished in the past ten years transfers to other institutions are often delayed. The popularity of the Service has made patients eager to be admitted and reluctant to be transferred. The depression has added heavily to the burden. Plans for expansion of the Service are not wanting and it is hoped that these will receive most careful consideration.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

AMENDMENTS TO THE CONSTITUTION

Proposals for amendments or alterations to the Constitution and By-laws of our Society, if offered during the interim between annual sessions, must be sent to the Secretary of the Society at least 4 months before the next annual session, and must be published in the JOURNAL at least 3 months in advance. The Official Call for our next annual session, which will be published in the June number, should include all proposals for amendments or alterations. Same should be mailed so as to reach the Secretary's office not later than May 25.

COMMITTEE ON PEDIATRIC EDUCATION

Following the approval of the 1934 House of Delegates of a recommendation by the Pediatric Section at Philadelphia, President Donald Guthrie appointed in March the following to serve on such Committee under the Chairmanship of Ralph M. Tyson, M.D., 334 S. 21st St., Philadelphia: Drs. Emily P. Bacon, Edward L. Bauer, Howard C. Carpenter, Charles A. Fife, Joseph Stokes, Jr., Philadelphia; James K. Everhart, Henry T. Price, Pittsburgh; John M. Higgins, Sayre; Robert A. Knox, Washington; Francis T. O'Donnell, Wilkes-Barre; Robert K. Rewalt, Williamsport.

THE COMMITTEE ON MEDICAL ECONOMICS

Dr. Fred M. Jacob, of Pittsburgh, recently resigned from the State Society Committee on Medical Economics, on account of press of duties incidental to the Secretaryship of the Allegheny County Medical Society. President

Donald Guthrie has appointed Dr. Max Weinberg, of Allegheny County, to succeed Dr. Jacob on this important committee, and Dr. Philip J. Lukens, of Ambler, at the request of President Guthrie, has accepted the Chairmanship of the Committee.

In introducing Dr. Weinberg by letter to the members of the Committee, the writer recently made the following statement: "Dr. Weinberg has to the personal knowledge of the undersigned been for 20 or more years a deep student of, with sound views on, all sociologic and economic problems affecting all forms of medical service."

In accepting the Chairmanship, Dr. Lukens expressed himself as follows: "As to the future activities of our Committee, I fervently hope that the entire field of Economics as it affects the physician will be thoroughly studied." The other members are Drs. Edward L. Bortz, Philadelphia; Walter S. Brenholtz, Williamsport; and Leonard G. Redding, Scranton.

ON TAXATION OF COD LIVER OIL

The following telegram was sent under date of April 5 to our Senators in Washington:

The Medical Society of the State of Pennsylvania sincerely hopes that you will urge amendment of HR Bill 7835 so as to exempt from taxation imported cod liver and similar oils of great preventive and therapeutic value to our people. They should be spared this unnecessary increase in cost of these valuable health agencies.

A. H. STEWART, M.D., *Chairman*,
Committee on Public Health Legislation.

OMISSION

The Northumberland County Medical Society should have been included in the Honor Roll in the March JOURNAL as having remitted on Feb. 20, sixty per cent of their members' dues.

American Medical Association

Application for Fellowship

535 North Dearborn Street, CHICAGO

, 19

I hereby make application for Fellowship in the AMERICAN MEDICAL ASSOCIATION and subscribe for The Journal for one year from date. I am a member in good standing of the

County Medical Society,

a component branch of the

State Medical Association.

N. B.—Seven dollars is deposited with this application, of which amount should I be granted the Fellowship applied for, \$6.00 is to be credited to my subscription for THE JOURNAL. The Fellowship for which this application is made is to be subject to the Constitution and By-Laws of the American Medical Association.

Signed

NAME IN FULL

Street

City

County

State

Qualifications for Fellowship—The members in good standing of the constituent state and territorial medical associations of the American Medical Association shall be members of the A. M. A.

Any (1) member of this Association, who, on the prescribed form, (2) shall apply for Fellowship and subscribe for THE JOURNAL, (3) paying the annual dues for the current year, shall be a Fellow.

THE A. M. A. AT CLEVELAND

The Annual Session of the American Medical Association will be held this year in Cleveland, Ohio, June 11 to 15. It is not often that such a great opportunity for graduate education and broadening of one's vision by attendance upon such meetings is brought to the border of our own State. It is to be hoped that at least 2000 Pennsylvania physicians will attend the various sessions, but it is sad to contemplate that so many who are members, and will be welcome to attend, will not be permitted to register, or take part in discussions.

It should be borne in mind that none but Fellows of the American Medical Association may register or take part in the work of the Scientific Sections. All members of our County and State medical societies are members of the American Medical Association, but only those who have made formal application for Fellowship and subscribe to the *Journal of the American Medical Association* are Fellows of the Association. Several hundred of our members who subscribe to the *Journal* are not Fellows of the Association only because they have not made formal application.

An application blank appears on page 684 of this issue of the JOURNAL. Any member not having a Fellowship card should make application at once to Secretary Olin West, 535 North Dearborn Street, Chicago, Illinois.

THE APPENDICITIS WARNING STICKER

Dr. Paul H. Walter, of Bethlehem, Pa., makes an interesting observation in connection with the gummed stickers to be found in the April issue of the PENNSYLVANIA MEDICAL JOURNAL, which we believe may be of great practical value to our readers.

Dr. Walter states that as well as pasting these stickers on all reading matter in his reception room, he has also placed one on the inside of his office door. The public reaction to this experiment has proved both advantageous and interesting, since he remarks that in almost every instance, a person having entered and seated himself will, upon noticing this small sticker, get up, walk to the door, and read it very carefully.

Why not try this method in your office?

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence make grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary, Clinton County Medical Society	\$ 25.00
Woman's Auxiliary, Lancaster County Medical Society	75.00
Total contributions since 1933 report ...	\$904.00

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since March 15. Figures in first column indicate county society numbers; second column, State Society numbers:

1934				
Mar. 15	Luzerne	118-197	4115-4194	\$600.00
	Warren	2 21	4195-4214	150.00
	Carbon	26-27	4215-4216	15.00
	Elk	1-17	4217-4233	127.50
	Greene	22	4234	7.50
	Blair	61-71	4235-4245	82.50
	Lycoming	80-90	4246-4256	82.50
	Delaware	92-102	4257-4267	82.50
	Berks	119-129	4268-4278	82.50
	Butler	9-36	4279-4296	135.00
16	York	106-109	4297-4300	30.00
	Mercer	45-50	4301-4306	45.00
	Schuylkill	100-105	4307-4312	45.00
	Philadelphia	815-1014	4313-4512	1500.00
17	Lawrence	2-42	4513-4553	307.50
	Crawford	28-30	4554-4556	22.50
	Susquehanna	11-12	4557-4558	15.00
	Allegheny*	1286	7761	7.50
	Allegheny	2, 687-888	4559-4761	1522.50
19	Clearfield	26-36, 38-41	4762-4776	112.50
	Cumberland	33	4777	7.50
	Armstrong	27-33	4778-4784	52.50
	Bucks	19-26	4785-4792	60.00
20	Lehigh	71-109	4793-4831	292.50
	Montour	29-35	4832-4838	52.50
	Indiana	18-24	4839-4845	52.50
	Mercer	51-58	4846-4853	60.00
	York	110-116	4854-4860	52.50
	Somerset	35	4861	7.50
	Lancaster	53-113	4862-4922	457.50
21	Mifflin	22-23	4923-4924	15.00
	Wayne-Pike	14	4925	7.50
	Bedford	15	4926	7.50
	Lebanon	10-21	4927-4938	90.00
	McKean	23-29	4939-4945	52.50
	Tioga	15	4946	7.50
	Washington	62-78	4947-4963	127.50
22	Warren	22-43	4964-4985	165.00
	Schuylkill	106-113	4986-4993	60.00
	Greene	23	4994	7.50
	Wyoming	14	4995	7.50
	Franklin	32, 50-58	4996-5005	75.00
	Mercer	59-62	5006-5009	30.00
	Tioga	16	5010	7.50
23	McKean	30-35	5011-5016	45.00
	Northampton	60-66		
		68-95	5017-5051	262.50
	Potter	12	5052	7.50
	Center	16-20	5053-5057	37.50
	Blair	72-74	5058-5060	22.50
	Clarion	20-23	5061-5064	30.00
	York	117-123	5065-5071	52.50
	Greene	24	5072	7.50
	Washington	79-82	5073-5076	30.00
	Mifflin	24	5077	7.50
	Chester	66-84	5078-5096	142.50
24	Cumberland	34	5097	7.50
	Mercer	63-65	5098-5100	22.50
	Huntingdon	22-24	5101-5103	22.50
	Delaware	103-114	5104-5115	90.00
	Tioga	17	5116	7.50
	Lehigh	110-116	5117-5123	52.50
	Lancaster	114-131	5124-5141	135.00

* Indicates 1933 dues.

1934					1934				
Mar. 24	Dauphin	173-187	5142-5156	\$112.50	Apr. 3	Berks	149-151	5687-5689	\$22.50
	Schuylkill	114-117	5157-5160	30.00		Washington	98-99	5690-5691	15.00
	Susquehanna	13	5161	7.50		Adams	24	5692	7.50
	Beaver	57-65	5162-5170	67.50		Venango	45	5693	7.50
	Lycoming	91-97	5171-5177	52.50		Wayne-Pike	16-17	5694-5695	15.00
	Cambria	97-104	5178-5185	60.00	4	Lackawanna	1, 139-184	5696-5742	352.50
	Venango	56-57	5186-5187	15.00		Montgomery	161-162	5743-5744	15.00
	Elk	18-19	5188-5189	15.00		Northampton	122-142	5745-5765	157.50
	Chester	86	5190	7.50		Schuylkill	134-140	5766-5772	52.50
26	Bradford	18-29	5191-5202	90.00		Monroe	16	5773	7.50
	Berks	130-135	5203-5208	45.00	6	Armstrong	42-43	5774-5775	15.00
	Lebanon	22-25	5209-5212	30.00		Northumberland	72-73	5776-5777	15.00
	Somerset	36	5213	7.50		Cumberland	37	5778	7.50
	Lawrence	43-54	5214-5225	90.00		Indiana	33-36	5779-5782	30.00
	York	124-132	5226-5234	67.50		Dauphin	198-201	5783-5786	30.00
	Crawford	31-40	5235-5244	75.00		Delaware	137-138	5787-5788	15.00
	Venango	32-34	5245-5247	22.50		Crawford	47-49	5789-5791	22.50
	Montgomery	140-149	5248-5257	75.00		Lebanon	29	5792	7.50
	Westmoreland*	175	7762	7.50		Erie	134-142	5792-5801	67.50
	Westmoreland	87-97	5258-5268	82.50		Berks	152-153	5802-5803	15.00
27	York	133	5269	7.50		Allegheny*	1288-	5793	7.50
	Fayette	89-95	5270-5276	52.50		Allegheny	889-1092	5804-6007	1530.00
	Mercer	66-67	5277-5278	15.00	10	Luzerne	239-285	6008-6054	352.50
	Erie	70-71, 91-112	5279-5302	180.00		Washington	100-103	6055-6058	30.00
	Crawford	41-42	5303-5304	15.00		Bucks	43-54	6059-6070	90.00
	Chester	90-91	5305-5306	15.00		Westmoreland	98-137	6071-6110	300.00
28	Somerset	37	5307	7.50		Fayette	104-108	6111-6115	37.50
	Erie	113-125	5308-5320	97.50		Chester	95-98	6116-6119	30.00
	Adams	21-22	5321-5322	15.00		Luzerne	286-298	6120-6132	97.50
	Crawford	43-44	5323-5324	15.00		Lackawanna	185-192	6133-6140	60.00
	Chester	92-94	5325-5327	22.50		Washington	104-109	6141-6146	45.00
30	Schuylkill	118-125	5328-5335	60.00	11	Venango	46	6147	7.50
	Franklin	59	5336	7.50		Beaver	72-75	6148-6151	30.00
	Venango	38-40	5337-5339	22.50		Chester	99	6152	7.50
	Greene	25	5340	7.50	12	Schuylkill	141-144	6153-6156	30.00
	Montour	36	5341	7.50		Lawrence	63-65	6157-6159	22.50
	Washington	83-91	5342-5350	67.50		Blair	75-95	6160-6180	157.50
	Venango	37	5351	7.50		Center	22	6181	7.50
31	Venango	41-42	5352-5353	15.00		Tioga	21	6182	7.50
	Luzerne	198-238	5354-5394	307.50		Clearfield	52-55	6183-6186	30.00
	Delaware	115-122, 124-128	5395-5407	97.50	13	Delaware	139	6187	7.50
	Montour	37	5408	7.50		Schuylkill	145	6188	7.50
	Lawrence	55-60	5409-5414	45.00		Luzerne	299-301	6189-6191	22.50
	Washington	92-97	5415-5420	45.00					
	Adams	23	5421	7.50					
	Carbon	28	5422	7.50					
	Center	21	5423	7.50					
	Mercer	68-72	5424-5428	37.50					
	Schuylkill	126-133	5429-5436	60.00					
	Indiana	25-28	5437-5440	30.00					
	Greene	26	5441	7.50					
Apr. 2	Cambria	105-166	5442-5503	465.00					
	Northampton	96-121	5504-5529	195.00					
	Crawford	45-46	5530-5531	15.00					
	Lebanon	26-28	5532-5534	22.50					
	Cumberland	35-36	5535-5536	15.00					
	Northumberland	62-71	5537-5546	75.00					
	Berks	136, 138-148	5547-5558	90.00					
	Delaware	130-136	5559-5565	52.50					
	Lawrence	61-62	5566-5567	15.00					
	Erie	126-133	5568-5575	60.00					
	Indiana	29-32	5576-5579	30.00					
	Fayette	96-103	5580-5587	60.00					
	Clearfield	42-51	5588-5597	75.00					
	Dauphin	188-197	5598-5607	75.00					
	McKean	36	5608	7.50					
	Somerset	38	5609	7.50					
	Tioga	18-20	5610-5612	22.50					
	Venango	43-44	5613-5614	15.00					
	Greene	27	5615	7.50					
	Montgomery	150-160	5616-5626	82.50					
	Lycoming	98-119	5627-5648	165.00					
	Bucks	27-42	5649-5664	120.00					
3	Bradford	30-34	5665-5669	37.50					
	Elk	20-21	5670-5671	15.00					
	Armstrong	34-41	5672-5679	60.00					
	Beaver	66-71	5680-5685	45.00					
	Clarion	24	5686	7.50					

* Indicates 1933 dues.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to April 14:

ALLEGHENY: *New Members*—Samuel Alpern, 1831 Murray Ave., Thomas H. Bruce, Municipal Hospital, John E. Thompson, Magee Hospital, Pittsburgh; James J. Carman, Butler Pike, Allison Park; *Reinstated Members*—J. Clay Mahan, 2400 Berg Ave., S. S.; Paul J. McGuire, 919 Amity St., Homestead. *Deaths*—William H. Gardner, Pittsburgh (Univ. Pgh. '99), Mar. 23, aged 73; Walter G. Graham, Pittsburgh (Univ. Pgh. '11), Mar. 19, aged 50; E. Slifer Walls, Pittsburgh (Univ. Pa. '08), Mar. 28, aged 53. *Resignation*—Meyer H. Tolochko, Pittsburgh.

ARMSTRONG: *Transfer*—H. DeV. Hotham, Freeport (formerly of Saltsburg), from Indiana County Society.

BEAVER: *New Member*—George M. Durschinger, Rochester.

BLAIR: *Death*—Robert I. Hillis, Juniata (Coll. Phys. & Surg., Balt. '86), Feb. 25, aged 72.

BRADFORD: *Transfer*—William Bache, Jr., Wellsboro, to Tioga County Society.

BUCKS: *Resignation*—S. Edward Fretz, Riverdale-on-Hudson, N. Y.

CENTER: *Transfer*—Robert A. Houston, Millheim, from Philadelphia County Society.

CHESTER: *New Members*—Norman M. Macfarlane, Paoli; Jacob S. Sherson, Malvern; John S. Ammarell, Martin H. Neff, William M. Riley, Downingtown; G. Eugene Tenaglia, Honey Brook. *Transfer*—Walter R. Krauss, Pennhurst, from Berks County Society.

* Indicates 1933 dues.

CRAWFORD: *New Members*—John G. Beek, Titusville; Thomas F. Collins, Adamsville; Joseph F. Connor, 230 Chestnut St., Meadville; John C. Davis, City Hospital, Meadville.

DAUPHIN: *New Member*—Howard A. Coyer, 312 Third St., New Cumberland. *Death*—Samuel F. Hassler, Harrisburg (Jeff. Med. Coll. '94), Mar. 21, aged 66.

ERIE: *Death*—Arnold Paige, Erie (Univ. Buffalo '27), aged 33, recently.

FAYETTE: *New Members*—Edward T. Greutzner, Fairchance; Louis F. Rogel, 23½ E. Main St., Uniontown.

FRANKLIN: *New Member*—William J. Hutchinson, Shippensburg.

GREENE: *Resignation*—Carl L. Lutz, Rices Landing.

INDIANA: *New Member*—Fred S. Shaulis, Indiana. *Transfer*—Milton M. Auslander, Ernest, from Allegheny County Medical Society; Wallace E. Hopkins, Marion Center, from Butler County Society.

LANCASTER: *New Member*—Samuel W. McNeal, 741 Chestnut St., Columbia. *Deaths*—Theodore E. Ingram, Marietta (Jeff. Med. Coll. '85), Apr. 2, aged 16; John C. Stever, Bainbridge (Jeff. Med. Coll. '16), Apr. 8, aged 81.

LAWRENCE: *New Member*—Clarence A. Tinsman, Marienville. *Reinstated Member*—Wayne W. Bissell, 507 N. Jefferson St., New Castle.

LEBANON: *New Member*—Edward L. Jones, 411 Cumberland St., Lebanon.

LEHIGH: *New Members*—Constantine J. Adamiak, Catasauqua; John P. Rhoads, Macungie; Alfred W. Dubbs, 138 N. 8th St., Cornelius A. Gallagher, 534 N. 6th St., Milton E. Hartman, 1451 Chew St., Mitchell E. Katz, 650 Turner St., Allentown. *Removal*—Joe H. Schantz, from Macungie to Pennsburg (Montgomery Co.).

LUZERNE: *New Members*—Albert M. Biederman, 42 N. Main St., Pittston; Morton W. Groves, 119 S. Washington St., Wilkes-Barre; Russell A. Stevens, 380 Market St., Kingston; Frank C. Wagenseller, R. D. 2, Wapwallopen.

MIFFLIN: *Resignation*—Elizabeth A. Headings, Belleville. *Death*—Thomas H. Smith, Burnham (Balt. Med. Coll. '97), Mar. 20, aged 63.

MONROE: *Resignation*—Floyd Randall, White Sulphur Springs, W. Va. (to join W. Va. State Society).

MONTOUR: *Transfer*—Charles H. Dimm, Mifflinburg, from Lycoming County Society.

NORTHAMPTON: *New Member*—Joseph L. Farace, Bangor.

PHILADELPHIA: *New Members*—John R. Brophy, 6319 Ogontz Ave., Arthur L. Bolden, 235 N. 52nd St., George J. Dublin, 233 N. 18th St., Leon A. Frankel, 1110 E. Montgomery Ave., Leo B. Freeman, 215 E. Penn St., Louis P. Geffer, 2351 E. Allegheny Ave., Helen K. Grace, 6107 N. Marshall St., Ambrose De Cuzzi, 917 Federal St., Frederick E. Haentze, 1645 N. 29th St., Elizabeth Huneston, Mermont Apts., Bryn Mawr, George E. Lieberman, 3 S. 43rd St., Francis T. McGinniss, 5337 Chester Ave., Harry N. Stein, 228 W. Chelton Ave., Philadelphia. *Reinstated Member*—Morris S. Shapiro, 914 Pine St., Philadelphia. *Deaths*—Lewis H. Adler, Jr., Philadelphia (Univ. Pa. '88), Mar. 5, aged 70; Claude A. Dundore, Philadelphia (Jeff. Med. Coll. '87), Mar. 8, aged 68; John W. Eckfeldt, Upper Darby (Univ. Pa. '72), Oct. 5, aged 83; Peter P. Klopp, Philadelphia (Jeff. Med. Coll. '90), Mar. 24, aged 67; Octavius P. Large, Philadelphia (Med. Chi. Coll., Phila. '98), Mar. 14, aged 66; Charles A. Mayor, Philadelphia (Temple Univ. '10), Mar. 23, aged 55; Edward B. Finck, Philadelphia (Univ. Pa. '93), Mar. 24, aged 78; Jav Frank Schamberg, Philadelphia (Univ. Pa. '92), Mar. 30, aged 64; George A. Knowles, Philadelphia (Univ. Pa. '94), Apr. 11, aged 65.

SCHUYLKILL: *New Members*—John P. Dziensis, Frackville; N. Albert Fegley, Schuylkill Haven; Herbert J. Frew, Gilberton.

VENANGO: *New Member*—Andrew W. Goodwin, Jr., Oil City. *Reinstated Member*—Garrett C. McCandless, Franklin.

WARREN: *New Member*—William K. Skinner, State Hospital, Warren.

WASHINGTON: *New Members*—Howard C. Bliss, Vestaburg; Martin Stutz, Washington; A. M. Williams, Midway. *Reinstated Members*—Louis A. Carlet, 107 S. Main St., Washington; John A. Krosnoff, Bentleyville. *Death*—Paul F. Eckstein, Canonsburg (Univ. Pgh. '20), Apr. 4, aged 39.

WESTMORELAND: *Reinstated Member*—Daniel O'Connell, Jeannette.

COMMITTEE ON SCIENTIFIC WORK

RICHARD A. KERN, M.D., *Chairman*
Philadelphia, Pa.

PROGRAM OF THE SECTION ON SURGERY

The section officers with full coöperation of Dr. Richard A. Kern, chairman of the Committee on Scientific Work, have endeavored to arrange the surgical program that would be of equal value to the general practitioner and specialist.

Since our meeting place will be in Wilkes-Barre, a locality in which industrial surgery with its many economic factors is thoroughly understood and appreciated, we feel it is quite appropriate that the Committee on Scientific Exhibits have arranged a splendid program on fractures which will be supplemented by a symposium on fractures in the surgical section.

The timely and much-discussed problem of the mortality rate of acute appendicitis will be presented in a paper entitled "An Analysis of Twenty-Six Hundred Cases of Acute Appendicitis"; also, the comparison of the operative and nonoperative methods in the treatment of hemorrhoids. The surgical treatment of pharyngeal diverticulum by the combined one-stage method and numerous other problems that we feel will be of interest to the members in attendance.

There will be guest speakers of national prominence, to be announced later, to round out a program commensurate with the excellent programs in the past.

COMMITTEE ON PUBLICITY

LEWIS T. BUCKMAN, M.D., *Chairman*,
Wilkes-Barre, Pa.

THE PLACE OF MEETING

Nearly ideal for a small city, the Irem Temple, A. A. O. N. M. S., in Wilkes-Barre, offers splendid facilities for housing the exhibits, general and larger section meetings of the 1934 convention of the State Medical Society. Erected about 20 years ago the Irem Temple was remodeled and enlarged in 1932. The seating capacity of the auditorium was increased to accommodate 1500, with a stage enlarged to facili-

tate the presentation of the entire Shrine ceremonial. Two ballrooms, in addition, offer ample space for the scientific and commercial exhibits and section meetings of the coming convention. Most important the ventilation is adequate.

At Wilkes-Barre's celebration of President Roosevelt's birthday party, an estimated crowd of 2000 was accommodated in the building with 3 orchestras in simultaneous action on 3 different floors.

The Temple is just around the corner from the Sterling Hotel, convention headquarters, and from the Elks' Club, and within a city block of the Westmoreland Club and the city's center. The Sterling Hotel is expected to house the registration bureau and business office of the convention in its recently erected addition. Here an entire floor is especially adapted to this purpose.

After 30 years Wilkes-Barre feels able to offer the best in adequate facilities for a State meeting.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

MEDICAL SET-UP FOR WORKS DIVISION OF S. E. R. B.

Injuries to employees under the Works Program of the S. E. R. B. of Pennsylvania shall be compensated under Act 328, being a supplement to the Workmen's Compensation Act of Pennsylvania.

The County Medical Advisory Committee of each C. E. R. B. shall designate one of their committee members or a member of their county medical society to act as a county referee for medical service and bills. This man shall be, or be made, a member of the County Advisory Committee and be acquainted with compensation practice. The County Medical Referee shall report on any claimant if requested by the Compensation Board, or the director of Emergency Medical Relief. He shall be paid monthly an equitable amount for such service, based on time, responsibility, and relief load.

1. The Works Division of the Relief Department has requested The Medical Society of the State of Pennsylvania to furnish lists of physicians capable of doing general and industrial surgery as well as a list of specialists (including roentgen-ray, orthopedics, eye, dentists, etc.) to whom patients can and must be referred if in need of such services. This list will be compiled by each county medical society. A roster of participating physicians will be furnished each local Works Division for their guidance.

2. Patients needing hospital attention must be referred to a hospital on the approved list, furnished the local director, and will be paid for at a rate of \$3.50 a day. Extra charges shall be limited to schedule of hospital fees agreed upon between joint committees of American, Catholic, and Protestant Hospital Associations, and the United States Compensation Commission (*C. W. A. Bulletin No. 47*).

3. Emergency cases referred to any immediately available physician shall receive first-aid only from this physician. Continuation of medical service by the physician rendering first-aid depends on whether or not this physician's name is in the roster of participating physicians. If not, the patient must be transferred to a physician on the participating list whose capability for this particular work has been certified to by the county medical society.

4. The attending physician, whether he be the physician of original jurisdiction, or the physician to whom the case has been referred, or both, will be compensated according to the fees prevailing for like surgical service in the community. Itemized bills, covering the first 30 days, shall be submitted to the local Works Division of the S. E. R. B. The local medical referee who has been appointed by and is a member of the Advisory Committee to the local C. E. R. B., shall review all cases upon request, pass upon the adequacy of the medical service, if requested, and insist on a change of attending physician, if deemed advisable.

5. The local medical referee shall, in connection with the Red Cross, arrange for and participate in a teaching program which shall have for its aim the teaching of first-aid to men employed on each project. A first-aid man, as certified to by the Red Cross, or recently trained, shall be a part of the personnel whenever ten or more men are employed on a project.

6. Solicitation on the part of a physician or dentist, in any manner or form, is prohibited, and if detected the name of the offending physician or dentist will be immediately removed from the participating list, and remuneration denied the attending physician.

7. Physicians participating in this program shall signify acceptance of the same by the acceptance of a patient.

The State Advisory Committee urges all county societies to have as a part of the program in the near future, a first-aid talk and demonstration. Lay first-aid assistants, foremen, and office workers on local projects, are to be invited and register their attendance with the local medical referee who will report the same to the Emergency Medical Department of the S. E. R. B.

OBSTETRICAL CARE

Rules and Regulations Governing Medical Care Provided in the Home to Recipients of Unemployment Relief were written by a committee appointed by President Guthrie of The Medical Society of the State of Pennsylvania. Federal Emergency Relief Administration Bulletin No. 7 was, by necessity, the basis for the same. Our attempt was to formulate a plan as to provide the best medical care to fulfill the needs in this State. When the plan was adopted by the State the work of this committee was completed. The same individuals were then designated by the State Emergency Relief Board as the Medical Advisory Board to that body.

Four months of experience has failed to effect a smooth operation of the provision for obstetrical care. This appears to be due largely to lack of coöperation for prenatal care between patient and physician. Federal Bulletin No. 7 states: "Authorization for obstetrical service in the home shall include an agreed minimum number of prenatal visits." The "agreed minimum number" of 6 was specified only after the opinion of a number of outstanding obstetricians had been obtained.

The maternal mortality rate in Pennsylvania is excessively high. The Secretary of Health met with the

committee on one occasion, appealing for some provision to lower this unfavorable death rate. Almost daily inquiries are received from social workers and laymen on this subject. The public is demanding of you—the physicians of this State—to give motherhood a fair chance.

A recent New York Academy of Medicine report estimated that 65.8 per cent of the maternal deaths tabulated were preventable. The means suggested for correction was *Education*. It is not within the province of this committee to educate the physician how to provide better obstetrics; however, we are in a position to teach the value of prenatal care to the expectant mothers of one-half the babies of the State. This is being done by issuing a pamphlet with food orders, by press releases, and by personal contact of staff nurses and social workers. This widespread educational plan will spread to expectant mothers not on relief. It should have a cumulative influence. A recent survey by the Bureau of Vital Statistics indicates that the mothers provided obstetrical relief in the City of Pittsburgh under a plan supervised by a committee of the county medical society have had a lower mortality rate than those not on relief.

Your committee agrees with the criticism that \$20 is an insufficient fee for the services specified. Money was not available for the \$25 which we deemed a fair charge.

Midwives are demanding the privilege to participate in obstetrical relief. Increasing pressure through several personages high in official life is being brought to bear. It is our opinion that toxemia, disproportion of the pelvic outlet, malposed placenta, mental, cardiac, and other complications are problems for the physician; that midwives are thus untrained to render adequate care.

Your committee feels that participation by the midwives will be unfortunate.

It is hoped that each county medical society at an early meeting will discuss prenatal care. Those of us in practice for a generation need coaching in recent developments. The public look to us for action in reducing obstetric mortality. Six months of faithful, conscientious coöperation will provide statistics to prove the value of prenatal care.

The Bureau of Vital Statistics has provided us with some pertinent facts:

LIVE BIRTHS REGISTERED IN PENNSYLVANIA

	1931	1932	1933
Total	176,678	168,553	156,839
Attended by			
Physician .	169,217	160,982	Not available
Midwife ...	8,171	6,168	Not available
Other person	1,290	1,403	Not available
Birth occurred in			
Hospital ..	Not available	63,269	Not available
Home	Not available	105,284	Not available

Pennsylvania lost 874 mothers in 1933 from causes associated with childbirth.

Last year one maternal death occurred in approximately every 187 deliveries.

The maternal deaths and death rate of 5.4 per 1000 total births were slightly lower than in preceding years.

Puerperal septicemia caused 315 deaths or 36 per cent of all maternal deaths in 1933.

Puerperal albuminuria and eclampsia were second in importance in maternal mortality.

Contributory causes were listed on only 144 certificates of maternal deaths. Of these contributory causes, heart disease appeared most frequently with pneumonia ranking second.

At the present time about half the babies born in this State are coming into the homes of the unemployed. About \$1,600,000 (plus \$120,000 in Pittsburgh under a separate plan) will be spent this year by the State for this service. Whether this will be paid to the physicians or midwives depends entirely on the quality of the service rendered.

GEORGE L. LAVERTY, M.D., *Chairman*,

W. BURRILL ODENATT, M.D.,

HENRY T. PRICE, M.D.,

CHARLES H. SMITH, M.D.,

WALTER F. DONALDSON, M.D., *Secretary*,

Advisory Committee to State Emergency Relief Board.

County Society Reports

BERKS

March 13, 1934

The meeting was held at 3:15 p.m., at Medical Hall, Reading, with President Ralph L. Hill presiding, attended by about 60 physicians and guests. J. Stuart Lawrance, chief of obstetrical staff, St. Joseph's Hospital, Reading, and formerly of St. Mary's Hospital, Philadelphia, spoke on "Fetal Distress in Pregnancy Due to Starvation."

Dr. Lawrance said in part: While syphilis, nephritis, lead poisoning, apoplexy of the uterus, and separation of the placenta are old known causes of fetal death in pregnancy before labor, they do not account for all. In any large series of pregnancies carefully observed (with the results strictly accounted for from the fifth month on), there will be found a few instances in which none of the mentioned diseases are present, and in which the cause of the fetal death is unknown.

Given a perfectly healthy father and mother, together with clinical and laboratory records excluding presence of syphilis, lead poisoning, nephritis, or other known causes of fetal death in utero, it would seem that if an apparently healthy fetus died during pregnancy, the cause would be due to faulty transmission of nourishment from the mother to the infant, that is, in the placenta. The placenta of mild cases of syphilis shows considerable excess of mature and of embryonic connective tissue, a decrease in the branching of villi, and frequently a necrosis. Such a denser organ would very likely offer a hindrance to ready osmosis. A local uterine infection, such as endometritis might in all likelihood, produce in the maternal side of the placenta, a condition similar to that produced by mild forms of syphilis; for, if an extensive chronic endometritis existed, the decidua derived therefrom might well be fibrosed also, and from it the placenta. If chronic placentitis did actually hinder the osmosis of ordinary amounts of all nourishment, the fetus would suffer in proportion to the hindrance. The remedy would depend on finding a type of food that would osmose through the placenta despite the fibrosis, and on the ability to

feed it in excess. Sugar is not only a very diffusible food, but its use would also afford the possibility of checking success or failure by ready clinical tests.

Taking a consecutive series of 645 pregnancies in the middle of the 10-year research, divided into 2-year periods, it was found that fetal distress was objectively proved in 12 of 18 cases (or 66 per cent) of chronic placentitis or fibrosis not due to syphilis, nephritis, or lead poisoning. Fetal distress was not present in 6 of 18 cases (or 33 per cent) of chronic placentitis. The frequency in this series of proved fetal distress in pregnancy associated solely with chronic placentitis or fibrosis would be 12 cases among 645, or 1.8 per cent.

The best method for administration of excess carbohydrate therapy is a problem. Occasionally a diet consisting of an excess of starchy foods of a general diet and a half pound of hard candy daily will suffice. Sole reliance on such a method, however, is not satisfactory, *viz*: (1) If the distress is at a critical stage, such a method is too slow; (2) if the mother is "liable" to toxemia, or if, being not liable, she has large deposits of fat, oral feeding of excess starches may not be tolerated, for there is often an impaired pancreatic function in such women. For a more rapid method of administering the excess of carbohydrates, Titus' method of intravenous glucose therapy for toxemia in pregnancy used in conjunction with the old rotunda or conservative treatment of toxemia of Tweedy is recommended.

The physical signs, stated in the order of their occurrence as the fetus passes from mild distress to death, are: (1) Rise of the whole fetal heart rate above 150 a minute; (2) reduplication of one of the paired sounds of the fetal heart; (3) irregularity in rhythm that can best be described as an increase in the rate of pairs of sounds followed by return to the original rate; (4) funic souffle, sometimes heard as a terminal sign; (5) sinking of the entire rate to or below 110 a minute. The symptoms arranged in order of severity are: (1) The experience of the usual daily period of increased fetal activity at a time or under circumstances that are not usual; (2) experience of veritable "storms" of fetal movement. The reliability of the former symptom is variable and depends on (a) the type of previous instruction the mother has received, and (b) on the mental stability of the mother. The reliability of the latter symptom is constant when it is experienced, which is not always the case, but it is a terminal manifestation. In regard to the physical signs, the rise in the entire rate above 150 is the earliest, while the decrease to or below is the terminal sign. The changes in rhythm and the funic souffle mark the intermediary stages of distress. The physician desirous of noting these signs will find little or no difficulty in doing so after he has accustomed himself to counting normal rates and rhythm by routine weekly observation of his own normal cases. Direct auscultation is perhaps best. All cases in which signs (1) and (2) are detected, or symptom (1) reported, should be put under constant observation within 24 hours, and within which period the therapy to be prescribed should be started if the first observation is confirmed. All patients in whom physical signs (3), (4), or (5) are detected, or symptom (2) reported, should be put under constant observation at once, no matter what the hour, and as soon as the initial observation and the absence of syphilis, nephritis, lead, *etc.*, are confirmed, therapy should be started.

As soon as fetal distress is recognized, the existence of syphilis, of a previous chronic nephritis, or of separation of the placenta should be established or excluded. The procedure advised is: (a) Administer 50 to 150

grams of glucose, in from 100 to 200 c.c. of saline within a period of 5 minutes. Usually the smaller amount is given but frequently 125 grams will be required for the first injection, and occasionally 150 grams. Repeat the intravenous injection every 4 to 6 hours, controlling the amount of glucose to be given in subsequent doses by the blood sugar level if possible until the fetal heart rate returns to normal in every aspect that was abnormal. The blood sugar level for normal pregnancy should be 120. (b) If the acute stage of distress has been relieved, the fetus quiet, with heart rate and rhythm normal, the intravenous administration of glucose is stopped. The mother is then given orally a general diet in which there is a moderate excess of carbohydrates. The excess should depend on the condition of the mother and the baby. A small daily amount of hard candy should be included among the articles prescribed to compose the excess carbohydrates as well as cereals, root vegetables, syrups, and desserts. It should be remembered that it is also a general diet, therefore, proteins and fats should not be freely consumed. Prolonged walking is important, as is also regulation to insure 2 daily defecations. (c) When the sixth month of the puerperium has arrived, an attempt should be made to eradicate the fundamental endometritis. The indication in the presence of fetal distress, is to supply nourishment to the fetus in as large amounts and as rapidly as one can with safety to the mother. It is astonishing to observe that in the presence of fetal distress large doses and rapid introduction of glucose produce neither glycosuria nor hyperglycemia above 120. If a glycosuria or such a hyperglycemia does result, except as a very temporary manifestation, it is interpreted as evidence that we are not dealing with distress caused by fibrosis of the placenta alone, but that we have overlooked either syphilis or one of the older known causes of distress.

April 10

The meeting was held at 2:15 p. m., in Medical Hall, Reading, President Ralph L. Hill presiding, approximately 60 physicians and guests present. Arthur D. Kurtz, Philadelphia, spoke on "The Foot in Health and Disease."

Dr. Kurtz said in part: The abnormal conditions involving the human foot may be classified as structural and pathologic. The former may be divided into (a) congenital and (b) acquired; while the latter may be either postural or traumatic, and either (a) infectious, (b) metabolic, or (c) neoplastic, the last being practically always primary in the foot, while the first 2 are more often a local manifestation of a systematic state.

Structural variations or deformities in the congenital form depend upon muscle contractures or bony changes; whereas, in the acquired form or traumatic type, any structure entering into the foot may be at fault. In the postural deformities the muscles are the most important factors. The most common of all foot deformities is the weak or flatfoot; the most ordinary congenital deformity is equinovarus, commonly known as clubfoot, but one must remember that is not the only clubfoot, since any compound foot deformity is a clubfoot. Stress has been placed upon the rôle of the muscles in the production of deformity. As a secondary factor the bones, responding to stress in malposition react according to Wolff's law, assume abnormal contours to make the deformity difficult or impossible to reduce. Occasionally, the skeleton may be the primary factor, elongated scaphoid being an example; the at-

tachment of the tibialis posticus is so far internal to its normal site, that the pull of the muscle is lessened and a weak foot results.

Rachitis is the greatest cause of muscle weakness in children; therefore, it is the common underlying cause for flat or weak feet. The bone changes have become accentuated at the expense of the muscles, whereas, the latter exceeds the former in importance. The weakness of extremities and back in rachitic children is muscular, not bony, in origin. It is the nonrecognition of this point that has made the diagnosis of congenital flatfoot common; true congenital flatfoot is a rare entity.

Along the same line one may consider congenital calcaneus, a condition often diagnosed as clubfoot by the unknowing; here instead of inversion and depression, there is abnormal dorsal flexion, oftentimes to a degree that the front of the leg acts as a check to the foot. The treatment is simple by thorough massage of the calf group, with no retention apparatus necessary. Should calcaneus occur as a part of a weak foot deformity in children, as it often does and is almost as often overlooked, extensions on the heels may be needed to limit dorsal flexion.

When a congenital foot deformity is recognized, treatment should begin at once. In rural communities there are those who believe that a child will outgrow such a deformity and will, unless carefully advised, permit the deformity to progress to a point where surgical intervention of a radical type is necessary. At the Jefferson Hospital Clinic any case of equinovarus that does not respond to manipulation in the first 3 months of life, at the end of that time is tenotomized; occasionally, if there is no hope that manipulation will be beneficial, tenotomy is done earlier.

The acquired structural deformities require treatment, based not only upon the deformity itself, but upon the underlying cause. It should not be forgotten that the future of a traumatic case depends on the one who treats it first. More care in the actual diagnosis of the traumatic pathology, accompanied by careful and common sense surgery would prevent some of the deformities that follow.

A flatfoot is a foot that has a low arch, and much depends upon whether the observer has looked at the foot from the standpoint of function or from that of form. There are many persons whose low arched feet never trouble them; one could say that should their feet become painful it is not the low arch that is responsible, but an engrafted condition. One rarely sees feet that are not troublesome, the reason being that unless a foot is troublesome, it is hardly likely to be brought to a physician. Many of these persons have low arched feet for years.

Many cases could be cited to prove the contention that the pain in low arched feet is from causes other than the low arches, but no useful purpose would be served. The criterion of a useful foot is one that will carry the individual through the duties of the day without pain or discomfort. Many low arched feet meet this standard; many high arched feet do not.

The term, acute flatfoot, is not descriptive of the entity that it formerly designated. The term is applied to low arched feet that are acutely painful, on the mistaken idea that the arch has rapidly collapsed, with consequent distress and tenderness. The true explanation is that it is a low arched foot that has become the host to an acute infection, more often arthritis. Rigid flatfoot is a low arched foot that (due to long continued inflammation in the articular and periarticular structures) has lost its flexibility and become fixed. Such

a foot may be either painful or painless and represents the acme of low arch pathology.

Another term that is loosely used is traumatic flatfoot. It is generally used to designate a foot that after traumatism shows a painful and tender low arch; frequently the other foot is not examined, for if it were, it would show a low arch. The explanation usually offered is that the bones have collapsed because the ligamentous supports have been torn and the arch let down. The actual explanation is an old low arch that has been traumatized and is probably the seat of fracture of one or more bones, because the bones will break before the supporting structures will tear. An early roentgen ray in fracture of the anterior tarsal bones is sometimes reported negative, but a later roentgen ray will show definite bone changes with welding of 2 or more of the tarsal bones.

Metatarsalgia is pain in the front of the foot; it is not an entity, neither is it a diagnosis. It has many causes: Wearing a narrow high heeled shoe with consequent acute pressure on the digital branch of the external plantar nerve; relaxations of the anterior arch with consequent lowering of the metatarsal heads; infraction or fractures of the metatarsal heads and bases of the proximal phalanges; dislocations of the metatarsal phalangeal joints; chronic osteoperiostitis of the metatarsal heads; neoplasms in this locality; diabetic; syphilitic or tuberculous necrosis; and, Buerger's disease that shows anterior foot pains before they show intermittent claudication. Among other causes are fracture and inflammation of the sesamoid bones underlying the first metatarsal heads.

Painful heels are among the most disabling and worrisome conditions that patients may have. There are 3 usual and several unusual causes. The usual ones are: Acute periostitis of the tubercle of the os calcis; bursitis of the bursa between the os calcis and the plantar fascia; and, spur formation on the tubercle. The latter may be easily diagnosed by roentgen ray, while the former two offer little in radiographic diagnosis. If a roentgen ray cannot be had, rest in bed will relieve either periostitis or bursitis, but will not stop the painful weight bearing in spur formation. A number of years ago all spurs were supposed to be gonorrheal in origin, but today a small percentage have such an etiologic basis.

In diagnosing a foot ailment all of the resources of the clinician, plus the laboratory, should be used. It is good practice to roentgen ray every painful foot; some films will be negative, but a surprisingly large number will offer a diagnostic solution. A negative diagnosis of diabetes based upon lack of sugar in the urine may be inaccurate; a blood sugar estimate will be found far more valuable. Slight variation in the white cell count is significant, in showing a low grade infection, that is producing inflammatory reaction in the articular and periarticular structures. Chronic sinus formation about the heel has been found in sickle cell anemia in negroes.

In treatment, internal medication occupies a minor rôle. Well-balanced shoes, plus physical therapy cures some; surgery may cure others. Local treatment often avails nothing unless a distant focus of infection is eradicated. Sometimes no local treatment is needed if the focal infection is treated. Tonsils, teeth, sinuses, gallbladder, prostate, and the rectum all need investigation. Often we must refer cases back to the internist for treatment of cardiovascular-renal symptoms that have been referred for flatfeet and consequent swollen ankles.

In discussion Wellington D. Griesemer said it is unfortunate that inadequate attention is paid to the foot by the average general practitioner. Treatment for congenital clubfoot should begin on the first day, with manipulation for a period of 3 months; if no improvement, tenotomy should be performed immediately. A chronic arthritic foot goes on to the formation of a claw foot if left untreated. Erwin D. Funk asked if there is any condition of the foot that will cause periodic pain in the knee, exclusive of focal infection? Dr. Kurtz replied imbalance of the foot may. Harry W. Bagenstose asked what is the treatment, at reasonable cost, that the average person can pay? Dr. Kurtz said remove both shoes. Stand with feet parallel, 3 inches apart, and examine. If the arch is low and painful, have a roentgen ray taken and order corrective footwear. Frequently a three-sixteenth inch or one-fourth inch wedge placed inside the heel, and a rigid shank shoe with perhaps a one-eighth inch wedge on the outer side of sole will balance the foot. Good hygienic shoes should be available at recognized ethical stores for approximately \$10. **PEARL E. HACKMAN, Reporter.**

BLAIR

March 27, 1934

The meeting was held in the Altoona Hospital.

The scientific feature of the meeting was the presentation by Edward F. Williams of 3 unusual gynecologic cases, *viz.*, abdominal pregnancy; inversion of the uterus, chronic puerperal; and, granulosis cell carcinoma of the ovary. These cases were illustrated by lantern slides, drawings, and specimens.

Dr. Williams, in presenting the case of inverted uterus, stated that it was treated by the Spinelli method. The case of ovarian carcinoma was shown to be of about 9 years' duration, proving that this type of growth is slow in development.

James S. Taylor, in discussion, stated that abdominal pregnancy is due to the occurrence of misplaced endometrium.

April 25

The meeting was held at the Altoona Hospital; George E. Allenman presided.

Henry T. Price, of the University of Pittsburgh, read a paper on "Adolescent Health." Dr. Price emphasized that the family doctor has a peculiar responsibility when dealing with the adolescent. He must be a physician and a psychologist for he has important problems of physical health and mental adjustment. The adolescent period, which lasts until age 20, is one in which the standards of sex and other motives are established. There are 2 periods of acceleration in the development of the adolescent, one at about age 6 and the other about the age of puberty.

Bad mental characteristics are often developed in children during a period of illness, as a result of over anxiety on the part of the parents and a consequent over indulgence by parents.

Education of the parents is greatly needed. Many unwholesome habits of mind in children are directly resultant from similar conditions in the parents and are acquired by imitation. Many parents are constantly exhibiting childish behavior which is reflected in their treatment of the children.

Dr. Price advocated the periodic physical examination of all children and periodic conferences between parents and physician.

JOHN D. HOGUE, Reporter.

BUCKS

Dec. 5, 1933

A special meeting was held at the Fountain House, Doylestown, at 3 p. m., with 28 members present. President Harvey P. Feigley explained that the meeting had been requested by 5 of the members to discuss the program of the Emergency Relief Board for compensating doctors for the medical care of families on relief. Dr. Feigley had already appointed a committee to cooperate with the County Emergency Relief Board; Otto H. Strouse, chairman, John A. Weierbach and H. Doyle Webb. Edgar S. Buyers, our district councilor, explained the plan.

There was also discussion on the advisability of having more meetings. Our constitution provides for 6 regular meetings with additional ones at the request of 5 members. It was voted to hold a special meeting of the society on the second Wednesday in January and to dispense with eating at our special meetings and have dinner only at the 6 regular meetings.

Jan. 10, 1934

A called meeting was held in the Fountain House, Doylestown, with 16 members, President Harvey P. Feigley presiding. John A. Weierbach had found it necessary to resign from the Advisory Committee to the County Emergency Relief Board and Clairmont A. Kressley was appointed to take his place.

Advisory Committee to the County Emergency Relief Board: Otto H. Strouse, Clairmont A. Kressley, and H. Doyle Webb. Public Relations Committee: Frank Lehman, Allen H. Moore, and Clarence A. Paulus. Program Committee: J. Fred Wagner, William G. Moyer, and Claude L. Taylor.

The new business centered round the report of the Committee on Emergency Medical Relief and discussion growing out of this. There was also discussion regarding unlicensed practitioners and regarding the need for a minimum fee schedule for the county.

Dr. Kressley spoke on the subject of Emergency Child Health examinations. He said that a number of persons think a special "state physician" has been appointed to do this work. Dr. Wagner said the point had been stressed that such families were to take their children to their own family doctor.

Miss Lucia Cluney, state nurse, has been appointed orthopedic agent for Bucks County. The State has allocated \$200 to Bucks County for roentgenograms, braces, *etc.*, for crippled children unable to pay for the same. Miss Cluney is responsible for seeing that such children come under treatment. There will be beds available at Cresson and Mont Alto for hydrotherapy treatment of recent cases of poliomyelitis and such cases should be referred to the County Medical Director.

It was voted to hold a special meeting of the Society at Doylestown on Feb. 14.

Feb. 14

The special meeting held at Doylestown was attended by 14 members; 15 constitutes a quorum, no business could be transacted. There was considerable discussion on the problems of medical relief and the recent joint meetings in Philadelphia of the College of Physicians of Philadelphia and the American Academy of Political and Social Science.

April 11

A regular meeting was held in the Inn at Washington's Crossing, 45 attending, including the members of

the Woman's Auxiliary. Dinner was served. President Harry P. Feigley, presided.

Herbert T. Kelly of the staff of the Presbyterian Hospital, Philadelphia, read a paper on "Metabolism and Diet in the Pneumonias." Dr. Kelly pointed out that fever is the one constant feature of the pneumonias and there is a 7.2 per cent increase in metabolism for each degree (F.) elevation of temperature. To determine the metabolism of a patient with fever, calculate the normal basal rate and add 7.2 per cent for each degree elevation; add 10 per cent when there is great toxic destruction of body tissue; add 10 to 30 per cent if the patient is very restless. The metabolism of pneumonia so estimated is increased from 20 to 50 per cent above normal, and in severe cases may go even 70 per cent higher than normal. On account of increased protein destruction, the minimum protein requirement is considerably higher than in normal individuals. The chloride content of the blood up to the time of the crisis is low and about 8 grams of salt a day is required. High carbohydrate is necessary to protect the body's stores of glycogen and to prevent acidosis from improper oxidation of fats. Carbohydrates and fats are protein spacers. The water balance must be maintained. It is second only in importance to oxygen. The chief object in arranging the diet of the pneumonia patient should be such as to require the least possible exertion in the taking of food. There can easily be too much meddling. This refers not only to the giving of drugs which are useless, but more particularly to the giving of the many nauseous cough mixtures and other medicines which upset the stomach and interfere with proper nutrition. Rest and quiet are perhaps as important as food during the acute stages of the disease.

The diet in pneumonia should consist of a sufficient quantity of water and liquid foods. Give small quantities every 2 or 3 hours, totaling about 2000 calories per day including 50 to 60 grams protein. Milk is particularly suitable, about one quart per day, best taken straight, though it may be modified in various ways or replaced by albumin water prepared by whipping to a froth the whites of 3 or 4 eggs, stirring into cold water and straining. Two or 3 whole eggs may be given daily—raw, boiled, in custard, or as egg flip. Jellies, meat juices, broths, cream and ice cream, thin vegetable purées, liquid cooked cereals, and fruit juices are given. Coffee and alcohol are advisable, especially for those accustomed to their use.

During convalescence good, nourishing, simple food of sufficiently high caloric value tends to shorten convalescence and reduce occurrence of complications.

Otto H. Strouse, chairman, Advisory Committee to the Emergency Relief Board, gave a brief report of his work. He called the attention of the members to the fact that this is an emergency problem and that the work must be kept to the minimum and the bills kept as low as possible.

MARY E. LEHMAN, *Reporter*.

CAMBRIA

April 12, 1934

The meeting was largely attended, President Walter C. Raymond, presiding. Willard H. Kinney, associate professor of urology, Jefferson Medical College, Philadelphia, read a paper on "Hematuria: Its Significance and Management." He stressed the danger of procrastination and delay in ascertaining the cause of the

bleeding and emphasized the necessity of early diagnosis particularly where malignancy might be involved. The significance of hematuria is generally recognized and the importance of early determination of the source and underlying pathology is commonly appreciated. Blood in the urine of macroscopic proportion immediately attracts the patient's attention and he usually hastens to consult his physician. It is interesting to note little attention is paid by the physician in determining the source of the bleeding. The incidence of hematuria is so frequent from its numerous causes that one can not emphasize too strongly the importance of ascertaining the source as soon as possible after blood is discovered in the urine. Blood in the urine neither indicates the part of the tract from which it arises nor its causatory disease. Experience has shown that irrespective of medication, hematuria often ceases spontaneously and may not recur for months or even years. The sudden and complete disappearance of blood in the urine, particularly in the untreated cases, gives to many a false sense of security. Except in rare instances of excessive bleeding, we as physicians should regard the loss of blood as purely incidental and direct our activities to the prompt determination of its source and to the abnormal conditions producing it. It has been proved many times that sudden frank hemorrhages may occur with no prodromal symptomatology, the hemorrhage itself being the only symptom and that symptom disappearing as suddenly as it appeared. It is in this class of cases that the physician is prone at times to regard it as of little or no concern. The evil of procrastination is clearly evident in that the patient has been allowed to drift along, with rest, hemostatic agents, or some placebo form of treatment. Finally, after months or perhaps years have elapsed, recurrence of bleeding takes place and investigation instituted along proper lines and methods for determining the cause and source of the hemorrhage reveals an extensive pathologic lesion, or perhaps some far advanced malignancy which may by now preclude operative intervention. Surely one must be impressed that he has committed a grave error in stealing valuable time from the patient in his neglect of an early determination of the source from which the bleeding came. It is incumbent to proceed with the diagnosis at once, contrary to the widespread opinion the time to examine the patient is at the time of the bleeding. This is particularly important in hematuria of renal origin. In associated acute infections of the lower urinary tract, we find very definite exceptions to the rule. For example, hematuria of varying degrees accompanies acute posterior urethritis of gonorrheal origin. In such cases the history, urinary findings, and associated symptoms make the diagnosis obvious. In other cases, where no contrary complications to instrumental investigation are present, delay is indefensible.

The sources of hematuria are: Systemic causes; lesions of the viscera immediately adjacent to the urinary tract; and, lesions of the genito-urinary tract proper.

Of these 3 groups, the genito-urinary lesions constitute about two-thirds of all. The sources of bleeding from the genito-urinary tract proper are about equally divided between the upper and lower portions. In a series of 742 cases investigated, comprised of 510 men and 232 women, it was found that in men vesical papilloma and carcinoma were the most common causes; in women, inflammatory conditions of the urinary tract. Beyond age 50 the prostate gland is a common cause. Cases of carcinoma of the bladder are not infrequently associated with prostatic enlargement. The symptoms are somewhat similar in both conditions unless a pros-

tatectomy has been performed. A case may for a time be considered to be prostatic enlargement and so valuable time is lost.

Hematuria is rare in the first 2 decades of life. In the second and third decades, inflammatory conditions and calculi are the commonest causes in both sexes. Neoplasms become the commonest cause in men in the fifth decade, and in both sexes in the sixth decade of life. In our personal group of cases seen in the Jefferson Hospital from 1928 to 1933, 1500 patients were examined for various diseases of the urogenital tract, adjacent structures, and systemic diseases. Of these, 775, or a little over 50 per cent presented hematuria. Stone, tuberculosis, and carcinoma in the order named were the chief causes noted, stone representing 278 cases.

Systemic causes cited were hemophilia, splenic enlargement with true polycythemia, purpura hemorrhagica, leukemia, and scurvy. Hodgkin's disease, tabes dorsalis, multiple neuritis, and hysteria were cited as infrequently being the cause. A high protein diet and extreme exercise are more frequent causes of the appearance of red cells in the urine.

In tuberculosis of the kidney, hematuria may be the first symptom noted of this disease. This follows the breaking down of minute foci close to the renal pelvis. This may be discerned by careful pyelographic studies. Excretory urography here is useless. Retrograde pyelography must be used. The same diagnostic procedure holds true for malignant disease of the kidney. Neoplasms of the renal pelvis are suspected from the characteristic deformity shown in the calices at an early period long before palpation would reveal an increase in the size or contour of the organ.

In stone, a certain percentage of the so-called silent cases where the presence of calculus is not interfering with the renal outflow, its presence may be only indicated by a persistent recurrence of hematuria of variable severity.

Polycystic disease represented 3 per cent of our Jefferson patients. It may present itself clinically under the picture of persistent hematuria. It may be only of microscopic character or again the hemorrhage may be massive in character, arising from either one or both kidneys. The essential diagnostic feature is the evidence of increased nitrogen retention in the blood and diminution in function of the kidney. Pyelography presents the particular dragonlike deformities of one or both kidneys.

Trauma or rupture of the kidney as a rule produces massive hematuria. Immediate exploratory incision with the probability of nephrectomy to conserve the life of the patient is the indicated procedure.

Other types of renal hemorrhage discussed were papillitis, hydronephrosis, and embolism and thrombosis of the renal vessels. Ureteral causes mentioned were neoplasms which are uncommon and usually implantations from renal neoplasms. In stricture of the ureter, the bleeding frequently is the result of the instrumentation in ureteral calculus in which gross bleeding is usually not as marked as when the stone is in the renal pelvis, and infected ureteral stump following nephrectomy for tuberculosis.

In bladder causes, neoplasms were the chief offenders. The benign papilloma first in order of frequency; second, papillary carcinoma; third, the infiltrating carcinoma and sarcoma.

Other conditions discussed were acute hemorrhagic cystitis, bladder calculus, in which trauma as a result of contact with the mucosa produced by contraction of the bladder walls may produce hemorrhage usually moder-

ate in degree, foreign bodies, alkaligenous infections, and trauma such as stabbing, gunshot wounds, etc.

Certain therapeutic measures may be employed in the temporary control of hematuria while investigation of its source is being pursued. Canothin, horse serum, adrenalin, stypticine, and numerous other preparations are valuable. Ephedrine or adrenalin may be useful for temporary relief. Louis H. Mayer, Jr., of Johnstown, gave a demonstration of the technic of the examination for the Emergency Child Health Survey, about to be inaugurated in Cambria County.

WALTER C. RAYMOND, *Reporter.*

CHESTER

March 20, 1934

Previous to the meeting, held at the Chester County Hospital, luncheon was served to the members of the Woman's Auxiliary as well as to the physicians.

President Donald Guthrie, of the State Medical Society, outlined some of the activities and policies of the State Society for the benefit of conditions relating to health throughout the State. After the address, President Howard B. Davis presided at a joint meeting of the Medical Society, dentists, pharmacists, and health workers of Chester County. At the suggestion of the Economics Committee, it was recommended that the State Medical Society be requested to submit to the various candidates for Governor of Pennsylvania a definite platform representing the program and policies in health matters advocated by the State Society.

Harold A. Miller, director of Emergency Medical Relief for Pennsylvania, gave an address on the various aspects of the question of medical relief. He stated what should and should not be done in matters pertaining to this problem. He indicated that the majority of physicians of the State had been conscientiously attempting to fulfill the provisions outlined by the State Emergency Relief Board, but that we must curb the activities of the small percentage of physicians who are not wholeheartedly cooperating in the support of this program.

Mr. C. D. Koch stated that he was in Chester County for the purpose of making a survey of the poor laws pertaining to the care of the indigent poor. His report will be submitted to the State Secretary and sent to the State Medical Society at a later date.

District Councilor Edgar S. Buyers spoke of the amount of relief work being done by the physicians in Chester County.

JOSEPH SCATTERGOOD, JR., *Reporter.*

DAUPHIN

April 3, 1934

The meeting held in the Academy of Medicine Building, was called to order at 9 p. m. by President E. Kirby Lawson. The Program Committee announced an obstetrical symposium for the June meeting.

Howard A. Coyer was elected to membership.

Jacques Guequierre, Philadelphia, assistant professor of dermatology at Temple University Medical School, gave an address on "Dermatology as Related to General Medicine." The man who knows medicine best knows dermatology best. Most dermatologic conditions are general in origin except a few which result from local conditions, such as infection from parasites or germs,

new growths, lichen planus, and psoriasis. Many general systemic conditions have the same dermatologic reflections. Focal infections, pregnancy, menopause give an erythema. Pigmentation appears as an endocrine disorder.

Slides were shown.

SAMUEL B. FLUKE, *Reporter*.

DELAWARE (EASTERN BRANCH)

April 24, 1934

The meeting was held at Oakmont, 9 p.m.

The program was a "Fracture Symposium." Drury Hinton, read a paper on "Anatomical and Practical Points, and the Clinical Application of them in the Management of Simple Fractures." He spoke briefly on the anatomy and physiology of the long bones, particularly the epiphyses, and blood supply. Nutrient artery of upper extremity flows towards elbow, while in lower extremity it flows from the knee. Perfect position was not always obtainable and not always desirable. Advised making roentgenograms of the opposite side especially in fractures near epiphyses in children, and after shoulder reduction for dislocation. Do not show films to patient or family.

Before age 10, epiphyseal separations occur frequently, are easily reduced, and re-occur frequently. After age 10, the reduction is difficult and recurrences are not as common. During first 20 years of life, greenstick fractures and epiphyseal separations are common. From 20 to 40 years, dislocations are more common. From age 40 to death, comminuted fractures are more common.

Fracture is not only an injury to the bone. Soft tissue injury occurs in all fractures and should receive appropriate attention. Discussed the age epiphyses appear and unite stating that epiphyseal separation of the upper humerus in children is hard to reduce. In fractures of surgical neck of humerus in adults the most difficult motion to regain is abduction, and therefore it was best to apply a dressing in partial abduction.

Supracondylar fractures of humerus are common in children. Proper dressing is not to place hand on opposite shoulder but to flex forearm on the humerus and watch carefully for nerve injury. In fractures of forearm a wide plaster splint is preferred because it does not interfere with the return circulation.

John Paul North, discussed "Some Common Pitfalls Resulting From Divided Responsibility in Fracture Treatment." He warned against dual responsibility in fracture treatments, and showed films of bad results from divided responsibility. Treatment of fractures primarily to restore anatomic relations and proper function.

V. William Murray Wright gave a paper on "Practical Physical Therapy in the Treatment of Fractures," and recommended open splints in preference to casts. Therapy should begin before reduction and not after healing. After reduction massage by gentle friction should be started. Moderate heat over long periods and passive motion early. Passive motion should be used short of pain, beginning about the seventh day. Therapy should be of such a simple nature that it can be used in any locality or place.

In discussion, James C. McConaughy gave fracture treatment from the standpoint of industrial medicine and said physicians in general were improving in the treatment of fractures. This was mainly due to teaching and clinics conducted by the College of Surgeons.

Harry B. Fuller inquired as to the advisability of having patients who were securely splinted attempt active motion during this time.

Dr. Hinton, in closing, discussed the differential diagnosis of fracture and dislocation especially in hip. He stressed the point of atrophy from disuse, and also too early use of a fracture where osteoporosis had occurred. Internal angular splint should never be used on humerus, for fracture of humerus. In fractures of forearm in children the arm should be immobilized above and below fracture. AUGUSTUS H. CLAGETT, *Secretary*.

ERIE

April 3, 1934

The meeting was held in the Hamot Hospital auditorium, Erie, President Frank B. Krimmel in the chair. Surgeon-General Robert U. Patterson, United States Army, spoke on "The Interrelationship of Military and Civil Medical Practice." His principal plea was for the development of a larger and more effective medical reserve corps. The active medical corps as it is now constituted is but the shell of a nation's needs in time of war; the major burden of a wartime medical corps must fall on the reserve corps and civilian practitioners, the latter group being entirely ignorant of army organization and army needs until it is literally forced upon them.

It is to acquaint nonmilitary physicians with army hygiene, camp and detachment discipline, the conduct of the several medical units, that the medical reserve corps has been developed. At the present time, the desired quota is but half filled.

The part of the army medical corps in the control of tropical and subtropical diseases, notably yellow fever, malaria, and typhoid, was referred to in discussing the value of that group to general public health as well as the development of our country along economic lines. That the medical corps began the work more recently carried on by the Weather Bureau is not common knowledge. At the present time, the C. C. C. is the particular assignment, with not only the medical phase but much of the organization of the camps allotted to medical officers.

RALPH D. BACON, *Reporter*.

HUNTINGDON

April 12, 1934

The meeting was held at the J. C. Blair Memorial Hospital, William T. Hunt in the chair. George A. Parker, chairman of the Mental Hygiene Committee, reported that a public meeting on mental hygiene would be held on May 10, with Arthur Phillips, psychologist at the Pennsylvania Industrial School, as one of the speakers.

Harry C. McClain, Saxton, Bedford County, was elected to membership.

William T. Hunt, Jr., presented a paper on "Scarlet Fever." The disease must never be considered lightly. The causative organism is thought to be the streptococcus hemolyticus, invading the nose and throat. Only about one-half of the persons coming in contact with scarlet fever contract the disease, by being exposed to the secretions of the nose and mouth, or by the pus from infected ears or glands. The scales do not convey infection unless contaminated with the mucous

secretions. In the treatment, no phenol preparations should be used for the pruritus as it may influence the susceptibility of the kidneys to the infection. Warm baths with soda bicarbonate added to the water will relieve the itching. The antitoxin causes the rash to leave in 24 hours, although it has no effect on the pathology and symptoms of the throat. A low protein diet is advisable. The resultant anemia is best treated with iron preparations. Daily urinalyses are recommended in order to detect early nephritis. Streptococcus vaccine has no apparent influence in streptococcal sore throat. Ninety per cent of the cases show by roentgen ray an involvement of the nasal sinuses. Tonsillectomies do not influence the Dick test for at least 6 months, i. e., they do not lessen the susceptibility to scarlet fever.

Harold G. Horton and William A. Doebele presented several interesting case reports.

WALTER ORTHNER, *Reporter*.

LACKAWANNA

March 6, 1934

The meeting was held at Scranton, President Walter W. Propst in the chair. Vincent T. Curtin, Scranton, read a paper on "The Child with Heart Disease."

He said in part: This paper presents a study of 200 children with heart disease, the majority of whom were seen in the cardiac clinic and wards of St. Christopher's Hospital for Children in Philadelphia. They are presented from the viewpoint of the pediatrician or general practitioner, rather than that of the cardiologist. The primary object will be to consider the cardiac child in the office or at the bedside, to view him from within rather than from without, as a child with a damaged or potentially damaged heart; to consider the best methods of diagnosis, treatment, and prevention of further attacks; and later to adjust him to society as an individual rather than as a cardiac cripple.

The cases have been selected at random; the ages range from age 6 weeks to 14 years. The figures present 2 interesting features; namely, the low percentage of functional heart murmurs and the high percentage of congenital heart disease. The number of cases of organic heart disease was 176; the remaining cases, 134, belong to the group of acquired heart disease, of which 119 or 89 per cent are due to rheumatic fever or chorea.

The physician who is able definitely to assure a mother that the murmur heard is nonorganic, renders her a service of tremendous comfort. On the other hand, the diagnosis of functional murmur in a heart showing early organic damage may result in irreparable harm. Anemia in a child should never be considered a reason for the diagnosis of cardiac murmur as functional or accidental. Another fallacy is the belief that this murmur changes or disappears when the position of the child is altered. The disappearance, on sitting up, of a murmur heard in the recumbent position, points to the diagnosis of accidental murmur, but the persistence of that murmur in all positions does not rule out a similar diagnosis. The greatest single aid in diagnosis of functional murmurs at the apex is the absence of transmission. Of next greatest importance is the absence of accentuation of the second sound, particularly at the pulmonic area. The third differential point in the diagnosis of the functional murmur is the absence of cardiac enlargement.

Forty cases were diagnosed as congenital heart dis-

ease. The age is an important factor in making the diagnosis of congenital heart disease. It is a safe general rule to suspect congenital heart disease in any child under age 4 that presents a cardiac murmur.

The next general feature is the presence of cyanosis, varying in intensity. There was noted no relation between the dyspnea and the cyanosis. This would seem to bear out the theory of admixture of arterial and venous blood causing cyanosis, rather than venous stasis. The most valuable sign referable to the heart itself is the murmur, which although it may be soft and blowing, is more often hissing, sawing, or roaring in character. They are frequently heard over the entire precordium, chest, and back, but usually a point of maximum intensity may be noted. Thrills are commonly met with the presence or absence of this feature, as well as the presence or absence of an accentuated pulmonary second sound, are further diagnostic aids. In such conditions the prognosis should not be as universally bad as most physicians make it. Many of our own cases passed to adult clinics in excellent shape, some patients in spite of our warning engaging in athletic pursuits without any evidence of distress. Consequently, in the absence of marked cyanosis and dyspnea, give the parent rather a favorable outlook for the child.

In the acquired heart disease group, 88 per cent presented a rheumatic history, as compared to the 30 per cent total given in adult clinics. The number of attacks varied from 2 to 22. When we consider the individual lesions found we note that 70 of the 119 cases were of the pure mitral regurgitant variety, 36 were double mitral lesions, 9 cases were combined mitral and aortic regurgitation, 3 were uncomplicated aortic regurgitation, and 1 case was pure mitral stenosis. These figures seem to show quite conclusively that mitral insufficiency is the most common acquired endocardial lesion, and that mitral stenosis alone is exceedingly rare. Of the 36 cases of combined mitral lesions, 20 developed the presystolic or diastolic murmur during the period of observation. The fact that this second murmur appeared while under the best possible medical conditions would seem to indicate that in many cases it is well nigh impossible to prevent the progress of cardiac damage unless the rest period be prolonged, that is, for years rather than months.

He early became interested in developing a means of determining from physical signs, whether or not mitral stenosis was developing in a heart possessing evidence of mitral insufficiency. He evidently came to the following conclusions: (1) That the second pulmonary heart sound is the best guide to approaching stenosis, and any increase in accentuation of this sound is a warning signal of this secondary lesion; (2) that while examination of a child sitting up or lying flat on its back may elicit no change in the murmur of mitral insufficiency, examination of the same child lying on the left side will often bring out the presystolic rumble many months before it is apparent in other positions; (3) that the presence of an increasing pulse rate, excitement, etc., having been ruled out, is to be accepted as the veritable handwriting on the wall as to the probability of further cardiac damage. Two general indications are a failure to gain in weight and a slight elevation in temperature.

As to the prognosis of the child with acquired heart disease; of 300 patients studied, 40 are dead or approximately 13 per cent. Of these 40 patients, 25 died within 4 months of the first attack and the other 15 within 4 years. The remaining patients when last seen

were doing well, which would seem to indicate the prognosis, at least as to life, improves with the increasing period following the original attack. The prognosis is best in cardiac disease following acute tonsillitis alone, somewhat less favorable following chorea alone, and worst following acute rheumatic fever, either alone or in combination with chorea or tonsillitis. The prognosis will in the end depend on the frequency and severity of recurrent attacks and that the chances are even that a child of 7 will have a recurrent attack within one year, and almost a certainty that he will have one or more attacks before reaching puberty, after which age the chances decrease to 1 out of 3. The presence of rheumatic nodules are of bad prognostic omen, as is also enlargement of the heart and a progressive increase in the pulse rate. The presence of even a slight elevation of temperature, particularly when preceded or accompanied by weight loss, should be considered as evidence of cardiac disease activity.

The most important feature of the cardiac problem in children is the treatment, a problem which depends first upon a correct and accurate diagnosis. The treatment depends, therefore, upon an accurate classification of the type of heart disease present in the invalid child. With this in mind, he adopted some years ago the classification of the American Heart Association and by the education of parents, teachers, school and visiting nurses in this classification, we were able to secure a coöperation in outside activities of the child which improved the child's condition. Considering certain of these groups:

Class I. Patients with acquired heart disease who are able to carry on ordinary physical activity without discomfort. The children in this class need no care other than a moderate amount of supervision, but are forbidden competitive exercise and severe physical strain. It was their custom to recheck these children every 3 months where coöperation was satisfactory.

Class II. Patients with organic heart disease and with symptoms or signs of heart failure at rest, unable to carry on any physical activity without discomfort. This is the child with failing heart and the treatment is that of the decompensatory state. The first drug to be administered is not digitalis but codeine or morphine in sufficient dosage to bring at least temporary relief. As to morphine dosage, the rule of 1/120 grain per year of age is a safe one, increasing the amount p. r. n. If a first attack, with possibility of recovery, one may proceed more cautiously, but if the path is inevitably downward, morphine must be used continuously. Cardiac stimulants of which digitalis is the most universally used seem to be of doubtful value. Digitalis was used in 24 children of this series presenting signs of decompensation, while 8 children were treated with rest supplemented by diuretics. We could note no better results with digitalis therapy than without it. When the tincture was used (standardized one cat unit per c. c.), the method of Sutherland was employed giving 3 c. c. daily until the pulse rate had dropped to 85, a feature, according to Sutherland, usually accompanied by nausea and vomiting, after which time a maintenance dose of approximately one-fourth the usual dose was used. Evidence of digitalization as noted above, usually occurred after the administration of 7 to 9 c. c. They noted that drop in pulse rate, so often considered a favorable sign was in the majority of cases unaccompanied by any general improvement such as decrease in the shortness of breath, the size of the liver, the pitting edema, *etc.*, even when the slow sinus rate continued for some time.

The use of diuretics needs no discussion. Their value

in overcoming cardiac edema is undoubted, and in the presence of a normal kidney there is no contraindication to their use. It is unfortunate that so little progress has been made in the treatment of rheumatic heart disease. Salicylates or aspirin in large doses, with amidopyrine and magnesium sulphate also of value, remain the drugs of choice. Serums, antigens, bacterins, *etc.*, did not prove successful in our clinic; also with chorea, which during the past 6 years has been treated with Small's serum, typhoid vaccine, and nirvanol with no startling results. Phenobarbital is now their standard treatment in chorea, varying in dosage from one-fourth to one and one-half grains 3 to 4 times daily. The dosage must be sufficient to sedate completely the patient.

The importance of tonsillectomy in the prevention of rheumatic fever is difficult to evaluate. Cardiac children apparently do better after tonsillectomy and adenoidectomy if salicylates are given before and after operation.

It is of paramount importance that the problem of limitation of a child's activities be handled with considerable care and we must accomplish our ends without awakening in our patient the dread consciousness of his existence as a cardiac cripple. The problem of the cardiac child cannot be coped with by the physician alone; he must seek close coöperation with the parent, teacher, nurse, and child. This necessity must be realized and acknowledged.

March 13

The business meeting was held with President Walter W. Propst, in the chair. It was announced that a clinic of neurology and psychiatry is to be opened this month at the Scranton State Hospital. The staff of this clinic, to be held weekly, will be made up of members of the local society.

Harold I. Lillie, chief, department of otolaryngology, Mayo Clinic, read a paper on "Significance of Certain Common Symptoms Referable to the Nose, Throat, and Ears." He said in part: Nearly all of the acute infectious diseases have their earliest manifestations in the ear, nose, and throat. One-fourth of all cases seen by the average general practitioner have to do with the ear, nose, and throat. Examination of the nose must be, of necessity, symptomatic. The mucous membrane has a mucous and serous secretion. It is estimated that normal nares may secrete a pint to a quart of normal secretion in 24 hours. The blood spaces are of erectile tissue. Engorgement and excretion of the mucous membranes are cyclic in type.

Changes in the temperature cause hypertrophy of nasal mucosa with marked excessive secretion in warm climates. This hypertrophic rhinitis is often seen in laundry workers who, accustomed to a warm, humid atmosphere, have a secondary atrophy with severe discomfort when exposed to cold. Postnasal drop is the frequent complaint of many of the robust, healthy type. The condition is due to the oversecretion of a hyperactive but otherwise healthful mucous membrane. On examination, a granular pharyngitis may be seen. Roentgen-ray treatment of the latter condition is rarely successful because it dries up the nose. The use of the iodides, such as syrup of hydriodic acid, stimulates secretion and the production of normal mucosa.

Nasal obstruction is the complaint when there is interference with air currents at the upper pole, generally due to swelling of the mucous membranes. This may be reflex action from sexual excitement, a type known as "honeymoon coryza." Rhinorrhea is a condition of

sudden, discharge of a copious amount of hot, watery secretion. It is seen mostly in endocrine disturbances, most frequently in myxedema. Thyroid medication will generally clear up all symptoms. As to colds, you can treat a cold and get well in 10 days; let it alone and it will clear up in a week and a half.

March 20

The guest speakers at the scientific session were Clarence A. Patten and Joseph C. Yaskin, associate professor and assistant professor of neurology, respectively, at the Graduate School of Medicine of the University of Pennsylvania. During the afternoon preceding the meeting, a clinic was held at the State Hospital, at which time several neurologic patients were presented. Dr. Yaskin spoke at the evening meeting on "The Nature and Management of the Neuroses."

He said in part: Some neurotics have an hereditary background, but actual organic or constitutional defect is questionable. A large number of these cases are believed to have an endocrine imbalance, which is traced largely to observation of thyroid cases that are so frequently called neuroses in the early stages. Many have evidence of imbalance of the sympathetic nervous system, but this is generally secondary and not primary in origin. The neurotic constitution is characterized by emotional instability and a low threshold for stimuli.

In the treatment of the neuroses, remember that the birth of the psyche is in the unconscious mind, often dominated by features of which we are all unaware. Manifestations of neurosis may be classified as (1) hysteric or conversion symptoms, sensory, motor, visceral, and hypnoidal; (2) neurasthenic, abnormal fatigability and excitability; (3) hypochondria; (4) anxiety, most important group; (5) phobias; and (6) obsessions. We must view each personality as a huge unconscious in a small conscious world, surrounded by bundles of emotions, termed complexes.

There are no neuroses without an anxiety basis of some type. Phobias and obsessions are anxiety outlets. The anxiety neurosis is very common and when recognized, easily cured. All suspected cases should first be studied for organic disease and hyperthyroidism. Ninety per cent of anxiety neuroses are traceable to some sexual difficulty. They occur most commonly in adolescence, and are very frequent after a sudden cessation of masturbation. There is a fear of becoming pregnant among the women, and of becoming impotent, among the men.

Hypochondria is rare, with attention centered on an organ in which there is no actual disease. These patients often develop melancholia. Traumatic neurosis dates to the time of actual injury. It is more closely allied to hysteria than to the true neurosis. This is not the type of case with actual head injury or personality change. The latter group comes under the heading of posttraumatic constitution. Neurasthenia, *per se*, is rare. Generally seen in the second and third decades, the main complaint is easy fatigability. Always eliminate tuberculosis, anemia, cancer, and early paresis first, before making a diagnosis. Hysteria is preceded by emotional immaturity, often precipitated by suggestion. There is always a motive, to gain the otherwise unattainable, or to escape the unpleasant.

The principles of treatment of the neuroses must include: Psychotherapy, treatment of psychogenic causes by establishment of "rapport" between physician and patient; ventilation of conflict material; desensitization; reeducation and readjustment; endocrine and medicinal agents. Try to understand the patient and

his difficulties; do not minimize his condition. Never employ useless operations or instrumentations in anxiety states. Treat definite symptoms and avoid diet ceremonials. Psychotherapy is no preaching. Try to make the patient realize in his own way his difficulties and problems, not by telling him but in getting him to tell you. One should not ask point-blank questions. Arrive at results in a round-about way. One first obtains relaxation, then confidence, and finally a full and complete life history. In reeducation, suggest procedures, but leave the choice of method to the patient. Do not inject yourself too strongly or there will be dependency.

We are victims of our own emotions, not of our intellects. Reeducation and readjustment may be of help, but mainly in organic disease. We must be able to get at the basis of all difficulty by psychotherapy. The truly religious man cannot have neurosis. Perfect faith eliminates the possibility up to the point of actual delusion. It is a form of powerful suggestion. Religion removes the anxiety of the neurosis. It is for this reason that Christian Science has gained such a firm hold. The busy practitioner does not take the time to produce the calm atmosphere of religious transference.

FREDERIC B. DAVIES, *Reporter*.

LANCASTER

April 4, 1934

The meeting was held in Hensel auditorium at Franklin and Marshall College. Invitations had been extended to members of the allied professions. David Riesman, Philadelphia, read a paper entitled "Surgery and Surgeons in the Middle Ages." In his introduction, Dr. Riesman recalled the names of prominent medical men who were originally from Lancaster County, among whom were Agnew, Musser, and Deaver. He praised the tendency in medical societies today to have a section on historic and cultural medicine, of which he has made an extensive study and has become a recognized authority.

Dr. Riesman said in part: Surgery has without doubt made many phenomenal advances since the middle ages, which he outlined. Though the middle ages were probably not so dark as some historians would have us believe, medicine and surgery were handicapped by the power of the ecclesiastics, who forbade dissection. Monks were forbidden to practice surgery in 1100 A. D. and later were even forbidden to give medical advice. This seems to have been due to the fact that the church disapproved of the spilling of blood. The Koran also forbade dissection and did not allow men to examine women. Thus most of the civilized nations of that period were very much restricted in the advance of medical knowledge.

Gradually surgery fell into the hands of the lower classes because it came to be considered demeaning to employ oneself with manual labor. The word surgeon comes from *chiron*, meaning hand, from which also our word *chirurgeon* is derived. For this reason, surgery was early separated from medicine. A special class of surgeons, the barber surgeons, traveled from place to place and did odd surgical operations such as opening an abscess, cutting for stone, or bleeding. The barber pole of today represents the bloody cloth which was hung out to advertise the arrival in the village of the barber surgeon. A Barber's Guild was organized in 1308 and was chartered under Henry VIII of England. It is interesting to observe that in the procession at the

time of one of the marriages of Henry VIII the surgeons were twenty-fifth in order of precedence; whereas, the physicians were seventh. It required 6 years' apprenticeship to become a surgeon after which if approved by the older members, the rank of major surgeon was conferred upon the applicant.

The authority of Galen prevailed until 1543, after which such men as Paré came to the fore and expressed newer ideas. It was he who said, "God did not exhaust all his ability on Galen" and hence dared to have opinions of his own. Paré was perhaps the earliest physician to believe that wounds should heal without pus, but this observation was entirely forgotten for several centuries.

The heated quarrelings between surgeons and barbers in France resulted in the foundation of the College of Cosmos, where rank was given great weight. Medical men wore the long robe, surgeons the short robe, and barbers no robe at all. For many years the surgeons were not admitted to the medical faculty and physicians scorned to use the knife. Surgeons have but few patron saints; whereas, physicians have several for each and every disease. This fact also represented the accepted status of the 2 branches of the healing art.

WILHELMINA SCOTT, *Reporter*.

LUZERNE

March 21, 1934

The meeting was held in the Medical Building, Wilkes-Barre, with Edward W. Bixby presiding. R. A. Stevens, A. M. Biederman, F. C. Wagenseller, and H. W. Groves were elected to membership.

William D. Whitehead, Scranton, read a paper on "Dermatitis of External Origin and the Patch Test," with demonstrations. He said in part that the patch test was originally described by Jadassohn to prove the rôle of certain external agents in provoking so-called dermatitis venenata or dermatitis of external origin. Many patients who came to his clinic reacted to ammoniated mercury ointment. He conceived the idea of placing the test substance to the skin on a piece of linen and attaching it with a piece of adhesive plaster for 24 to 48 hours. This test was either lost or unrecognized at first and so was not put into use for many years after.

In 1928, Bloch revived this long lost test and stimulated many American dermatologists to search and prove the cause of a large number of dermatoses, many of which were labeled eczema and which were actually dermatitis of external origin. He went so far to say that eczema, *per se*, was a rather rare disease and that by testing so-called eczematous patients it was amazing how many reacted to test substances and the nature of their diseases proved to be external rather than internal in origin, especially those cases that had vesicular manifestations. Today more and more of the eruptions involving the hands are being recognized as external in origin and are being cured. The cause of eruptions on the hands is difficult to prove because the hands are in contact with such a multiplicity of irritants that it is almost impossible to discover in many cases the real irritating agent.

Reactions to the patch test are: Erythema; erythema with vesiculation; follicular; urticular; edema. The period of reaction is usually constant in each person and varies from 5 to 6 hours to 10 or more days. Late periods of reaction, that is 10 or more days, are rare.

The usual time is within 48 hours. Examples: Mrs. J. M. C. reacted to potassium bichromate within 6 hours with erythema and vesiculation. Miss E. L., age 16, recurrent dermatitis of the face and neck, reacts to primrose leaves within 24 hours, with vesiculation. Dr. B., persistent dermatitis of the feet, reacts to paraphenylenediamine in 72 hours with erythema.

There is no comparison in reliability between the patch test and food protein test. The former is a most reliable test; the latter is most notorious in its unreliability. On rare occasions, however, it is possible for a patch test not to show evidence in one location while the patient is sensitive in another. The ideal place for testing is where the dermatitis is or was brought out by the irritating agent. This is not practicable especially if the eruption is on the face or neck. Obtaining the test does not necessarily mean that the cause is definitely found in a given case. Poly-idiosyncrasy is the rule rather than the exception.

The routine test substances are: Mercury, quinine, resorcin, paraphenylenediamine, aniline black, vaseline, lanolin, primrose leaves, naphthalene, picric acid, butyn, formaldehyde, orris root, arsenic, cold cream, glue, mucilage, butesin picrate, tar, turpentine, ephedrine, and potassium bichromate. In many cases, testings of other irritants are necessary; i. e., silk workers to silk and special dyes; florists to plants, as begonias, geraniums, etc.; dentists to novocain and mouth sprays.

Contact dermatitis, dermatitis venenata, or eczema venenata, is probably one of the most frequently encountered eruptions in private practice. A dermatitis may be provoked in any branch of medicine. The ophthalmologist who prescribes yellow oxide of mercury ointment for a marginal blepharitis or uses butyn for local anesthesia, in an occasional case will produce a dermatitis of the eyelids or conjunctivitis. Others react to adhesive plaster which has held on a surgical dressing. A physician himself is often not immune to antiseptic washes.

The dermatitis of external origin is frequently referred to as allergic, which term also embraces eruptions caused by the ingestion of drugs, urticaria, Quincke's disease, and other diseases which are not of the skin, as hay fever, asthma, and serum sickness. The site of sensitization in dermatitis is in the epidermis, and transference of passive immunity cannot be accomplished according to the method of Prausnitz and Kustner as in other allergic reactions like urticaria.

Dermatologists formerly considered eczema as a dermatosis caused by endogenous metabolic disturbances. Complete failure has resulted in attempting to find a metabolic disturbance to which the causes of eczema could be attributed. From bacteriologic laboratory examinations eczema is not as a rule metabolic; there may be in some few cases. A patient convalescing from a catarrhal jaundice has an eczema of the flexor surfaces of the arm and eyelids; patch tests have been negative. Quinine, urotropin, resorcin, arsenic, either injected or ingested, may produce attacks of dermatitis. It is possible that abnormal metabolic products may play a part in the genesis of eczema.

Vesiculation, if present, is a manifestation of dermatitis of external origin. Vesicles are never seen in those of endogenous origin. Example, Mrs. Q. had recurrent attacks of acute eczema during the past several years at Easter time. She had an intense weeping dermatitis of face, neck, chest, and arms. Removal of primroses resulted in the disappearance of the lesions in 2 weeks. All previous attacks were also due to these flowers.

Most cases of eczema of external origin present only an erythema and no vesicles. These involve the face, neck, eyelids, hands, and forearms.

The response to the patch test does not differ in cases whether the contact is from without (topical applications and industrial factors) and in cases caused by contact from within as with medication. If the cutaneous response is eczematous and vesiculating, the pathologic processes are identical and in most cases can be demonstrated by external applications. This is demonstrated by a patient who had an itching, weeping dermatitis of the face, scalp, and neck from hair tonic containing quinine. The following year he had a generalized erythroderma after taking a bromoquinine tablet. The utmost coöperation and observation on the part of the patient is necessary to find out the exact cause. Poison ivy is a classical example of an irritant. There are 300 different species which are capable of causing eczema. A few grasses may do so; plantain is an example. Trees at times may. There is no occupation entirely free from the hazards of dermatitis. Silk industry is prominent.

Cosmetics are a frequent source of involving face, neck, scalp, and hands. A number of cases of the eyelids and conjunctivitis have been reported from the use of Lash-lure, the main ingredient of which is paraphenylenediamine. Skin eruptions may occur also from the use of hair lotions which contain mercury, arsenic, resorcin, quinine, capsicum, and salicylic acid; any or all are irritant to some persons. Tooth pastes, soaps, and powders are also irritant to some. The latter may cause eruptions in infants in places at which it may be used as groins, axillae, *etc.*

Treatment consists of eliminating the cause if possible. Never prescribe an ointment containing drugs which may add insult to injury. Calamine lotion containing tragacanth and olive oil is most soothing locally. Roentgen ray is of value to relieve itching and causes a hasty resolution. Eczema of hands, face, neck, and eyelids, should be considered of external origin until proved otherwise. Remember drugs, flowers, and cosmetics and a great many cases can be solved.

MARJORIE E. REED, *Reporter.*

LUZERNE (HAZLETON BRANCH)

April 11, 1934

The meeting was held at the Elks' Home. Clarence A. Patten, associate professor of neurology, Graduate School of Medicine, University of Pennsylvania, gave an address on "Endocrine Disorders: Their Management and Treatment." He said in part: In considering disorders of the glands of internal secretion it is quite essential to have an understanding of their embryologic development and their general relation to the constitution as a whole. It is from this standpoint that he presented the subject, emphasizing glandular and polyglandular syndromes only as a part of the general situation of the organism. It must be borne in mind that the substances elaborated by the endocrine glands provide a biochemical correlation of all the physiologic processes of the body. Each gland undoubtedly elaborates a somewhat specific hormone whose function it is to participate in certain phases of the two very important life processes, nutrition and reproduction. It is quite evident, however, that no single hormone is capable of carrying on these basic principles alone; each in a manner complements and aids other hormone activities,

either in the general chemical correlation or in reciprocal interaction.

The interrelationship between the vegetative nervous system and the endocrine glands is very important and one which is lost sight of in the consideration of glandular therapy. Briefly it may be stated that the function of the glands of internal secretion is in part as follows: The regulation of cell chemistry; the activities of involuntary muscles; growth, development and nutrition; the reaction to bacteria and toxins; the production of immunity and the activities of the vegetative nervous system.

Following the work of Engelbach it is understood that the order of development of the glands phylogenetically is somewhat as follows: Gonads, thyroid, pituitary, pineal, pancreas, spleen, suprarenal, thymus, and parathyroids. In a measure this order of development has a great deal of evolutionary significance, and any consideration of the endocrine glands requires some knowledge of the embryologic situation and development for the proper interpretation of function. Roughly speaking, they may be divided into 2 groups. The first are those which are essentially glandular in their structure and develop from the primitive gastro-intestinal tract. These are the thyroid, anterior lobe of the pituitary, pancreas, spleen, liver, thymus, and parathyroids. From the nervous system come the posterior and intermediary lobes of the pituitary and the medulla of the suprarenals. From the primitive genital ridge come the gonads and the cortex of the suprarenals. From the first group, those derived from the intestinal tract, come those that influence regular growth, nutrition, and all metabolic activities. From the second group are derived those hormonal influences which have to do with muscle function, heat regulation, blood pressure, and the vegetative nervous activities. From the third group the substances are elaborated which are concerned chiefly with the primary and secondary sexual characteristics and activities.

The status of endocrinology has been remarkably improved in the last 10 to 15 years. Preceding this time endocrinology was held somewhat in the light of quackery and "bunk." However, experimental work and clinical observation have brought about a more definite recognition of certain hormonal principles from many of the glands of internal secretion. It has come to be well recognized that the physical conditions of persons, their structure and growth, resistance to disease, and mental and emotional characteristics are in a measure dependent upon these hormonal principles. Scientifically, advantage has been taken of the isolation of these hormones and the important knowledge of biochemistry, to affect a more adequate treatment for various disorders and defects. It is to be regretted, however, that modern methods of advertising have made extravagant claims for the therapeutic effects of glandular treatment.

Naturally the subject presents a great many difficulties because of our inability to appreciate *in vivo* the complex physiochemical changes in even the normal condition of health. For the most part it is the outstanding disorder of internal secretions with their striking physical manifestations that receive attention and treatment. Of far more importance are those situations which produce no particular outward manifestations, but when a careful inquiry and a little laboratory investigation will reveal milder disturbances of function which yield very satisfactorily to appropriate glandular therapy. An outstanding case of myxedema, adiposogenital dystrophy, hyperthyroidism, or eunuchoidism should present no problem of identification, but thera-

peutic results might be and oftentimes are disappointing on account of the severity of the condition. The milder syndromes, such as asthenia, low blood pressure, cephalalgia, and other situations in which a physiochemical imbalance is etiologically responsible, appropriate glandular therapy will oftentimes result in startling benefits. A plea is herewith made that the subject of the endocrine glands be approached from a more truly scientific standpoint and that therapy be based upon the actual needs of patients and less on the basis of advertising circulars.

In discussion, Dominic D'Angelo said that the market preparations which include both thyroid and ovarian extracts seem illogic because thyroid is somewhat vagotonic in its action while ovarian substance is sympathetotonic. He further speculated on the advantages to be gained in using folliculin in males with poor sexual development, and on the use of spermatie hormone in women who do not respond to ovarian substance. Otto C. Reiche said he had considerable success in treating retinal asthenopia with endocrine products, but has not observed this in the literature. The mode of action is difficult to explain but may be due to correction of constitutional imbalance and retinal spasms. George W. Taggart asked whether the various mixed gland preparations are valuable. James A. Corrigan asked whether theelol increases and produces menstruation or merely vaginal bleeding. John M. Dyson reviewed the differential diagnosis, as given by Engelbach, between amenorrhea of hypopituitarism and that of hypogonadism. This differentiation by study of the bones gives the important lead to the proper treatment and should be done if one wishes to avoid spending time and money using the wrong endocrine products. George B. Dornblaser called attention to literature advocating glandular feeding for patients with undescended testicles and stated that many such patients show descent of the testes before puberty when glandular activity is increased.

In conclusion, Dr. Patten stated that while thyroid and ovarian are antagonistic to each other many products are defective and not too much should be expected of them. The use of "gunshot" prescriptions is a pernicious practice with the exception of "mixed glands" in cases of neurasthenia or run-down conditions in which it is of real value. Regarding other conditions the use of single glandular products as indicated by knowledge of definite and specific deficiency is the best rule to follow. He had no definite personal knowledge of the action of theelol in amenorrhea or dysmenorrhea.

JOHN M. DYSON, *Reporter*.

LYCOMING

March 9, 1934

The meeting was held in Medical Hall at the Williamsport Hospital at 1:30 p.m., with President Warren N. Schuman in the chair.

H. F. W. Flock read a paper entitled "Unusual Complications Developing in a Series of Mastoid Cases Treated in the Winter of 1933-34." He stated in part that the cases of acute otitis media and mastoiditis this winter have been unusual; that the percentage of cases of mastoiditis secondary to otitis media seems to be far greater than in previous years. Complications from the acute ear conditions are exceptionally numerous. He reviewed 41 operative mastoid cases from Nov. 1, 1933, to March 9, 1934.

Etiologically we are dealing mainly with a very virulent type of streptococcus in about half the cases and the pneumococcus in most of the remaining cases. Other organisms found, play a more minor rôle. The marked amount of gas encountered in opening the ear drums was a factor in many cases. The colon bacillus was not cultured from any of the cases. A nonhemolytic streptococcus was usually found. One case had erysipelas before operation and 3 developed it from 1 to 3 days after operation. A nurse caring for a simple otitis case developed erysipelas while the patient remained free of such condition. Five of the operative cases followed scarlatina.

The pneumococcic cases gave the most concern. Their frequent complications and the high mortality due to the type 3 pneumococcus presented a clinical picture of the greatest importance. The chief features of this type of middle ear infection are the stealthy onset with mild symptoms, the great thickening with pink color of the drum membrane, the marked impairment in hearing, the small amount of discharge and the protracted course. Eighty per cent of these required mastoidectomy. The bone destruction was more extensive than the benign appearance of these would indicate. In the middle ear and mastoid, marked thickening and edema of the lining mucosa with comparatively little pus formation were present. This accounted for the marked deafness and other symptoms. Treatment should consist of ear paracentesis, careful observation of the patient, and repeated roentgen ray of the mastoid for signs of any cell changes. If in 5 or 6 weeks' time the deafness, tinnitus, and infiltration of the drum have not improved, mastoidectomy should often be carried out even in the absence of definite signs of mastoiditis. Radiography is a valuable aid. Delay is fraught with risk of intracranial complications.

A case was cited of a girl, age 4, admitted to the hospital with a temperature of 102° to 103° F. A myringotomy had been done on the right ear 10 days prior. Roentgen ray revealed a slightly cloudy mastoid on the right side but no evidence of cell destruction. Mastoidectomy was done the next day with a temperature of 104.3° F. The mastoid was filled with bloody granulations and some free pus in the neighborhood of the antrum. Two days after operation the pulse and temperature returned to normal and remained so for 12 days, when it suddenly arose to 103° F. and thereafter was typically pump handle from 96° to 104° F. There was no chill. Otherwise the patient seemed good. On the seventeenth day the ear was reopened, to look for possible sinus thrombosis. Nothing abnormal was found but the wound was allowed to remain wide open. The following day the urine began to show all the evidences of an acute hemorrhagic nephritis. The next day 75 c.c. of whole blood were given intravenously. By the twenty-first day the output had increased and the urine began to clear. The following day the sound ear flared up, the drum bulged and was opened. A week later hematuria reappeared. Leukocyte count during the course of the disease ran from 16,000 to 27,000, with a gradual deepening anemia. Transfusion was done, with whole blood from a streptococcic immunized donor. The condition improved and a left mastoidectomy was performed from which she made a gradual recovery.

In cases of pneumococcic infection the pneumococcic antigen of the polyvalent type seemed to be of demonstrable value, not only in ear cases but also in noses and throats infected with the pneumococcus. Two cases of pneumococcic conjunctivitis responded quickly to the same treatment. The antigen was given hyperdermi-

cally every 12 hours with improvement usually appearing in 48 hours.

One patient in this series died from a pneumococcic meningitis. He was a white boy, age 9, very poorly nourished from infancy and a poor operative risk at best. At onset the bulging drum was incised and the symptoms subsided. At the end of 10 days he seemed to be on the road to recovery when the ear symptoms returned with greater severity and a higher temperature than originally. The drum was reopened. In this case there was a delay of 48 hours because of the attitude of the parents and the general condition of the patient. Roentgen rays of the mastoid showed only about one-half of the bone pathology encountered. Following mastoidectomy he did well until about the twelfth day, a left facial palsy appeared, followed in 48 hours with high temperature and pulse rate and headache. Kernig's sign was suspiciously positive. A spinal puncture revealed cloudy spinal fluid with a high cell count culturing pneumococcus. He rapidly grew worse and in spite of reopening the operative field died 8 hours after the secondary operation.

The cases with a fibrinous otitis showed a special tendency to complications. The fibrinous mass in some filled the auditory canal. After a few days fibrin is replaced by pus, in some the fibrinous secretion continuing until operation. Cases with continuous fibrin secretion do not recover spontaneously. Those pneumococcic cases recovering without mastoidectomy show a markedly decreased capacity for hearing. The fibrin occludes the ear canal and helps to occlude the antrum between the middle ear and mastoid. Hence 75 to 80 per cent of these cases come to operation. Streptococic and pneumococcic infections of the middle ear lead more frequently to intracranial infection than do the staphylococcus and other germs, streptococci being the more frequent cause of these complications.

"Nephritis and Nephrosis, Their Diagnosis and Management," by Carl E. Ervin, of Danville. He reviewed the microscopic anatomy of the kidney and showed that the afferent artery to the glomerulus also supplies the tubules and the connecting tubule. The glomerulus is made up of a tuft of capillaries including afferent and efferent arteries, but no veins. Thus disease of the arteries puts these structures out of commission. It is almost impossible to have glomerular involvement without some tubular disturbance. The glomerular epithelium acts as a filter. The rate of blood flowing through the kidneys is very rapid but varies much. Ordinarily albumin is reabsorbed in the tubules, but not if the tubules are damaged. Few cases of hemorrhagic nephritis show a positive blood culture. The explanation is that allergy between the toxic products of the organism and the antibodies affects the tubules. The 3 main types of nephritis are the glomerular, tubular and the arteriosclerotic kidney. Henry Christian states that there is no such thing as a pure nephrosis. Theoretically such a thing is possible but ordinarily the tubules are not involved alone. Another classification was given, *viz.*, acute nephritis with edema; acute nephritis without edema; chronic with edema; and chronic without edema. Diagnosis is established by examining the patient, the urine, and the blood. Two main things in the blood work are the nonprotein nitrogen and protein. The most important constituent in the nonprotein nitrogen is the urea. The latter is an excellent diuretic. Normal figures for blood urea are 30 to 50 mg. per 100 c.c. of blood. Blood urea nitrogen 10 to 15 mg. per 100 c.c. of blood. Three-fourths of the kidney structure can be lost before the kidney function test

and blood studies show anything. Van Slyke's test for urea clearance was recommended. Urea clearance is affected much earlier than the blood urea, the latter not showing changes until late in the disease.

Another test of great value is the early study of the cellular elements of the urine. The cellular elements can be counted the same as in a counting chamber and an estimate made of the number of red blood cells, white blood cells, and casts eliminated, per day. Progress of the case then can be watched. The phenol-sulphonaphthalein elimination should not be relied on too much. The concentration test is worth-while.

Regarding nephrosis, the primary involvement is in the tubules. In nephrosis there is a depletion of plasma proteins. There is no resorption in the tubules and hence a tissue starvation of proteins. This accounts for the edema present.

The Treatment of Nephritis. Always search for infection and be satisfied with nothing short of complete removal of all possible foci. Teeth, tonsils, sinuses must be cleared up. The old practice of a meat free diet was seriously criticized. In the old milk diets a patient was getting 80 grams of protein. There are a few exceptions to this, *viz.*, in the very acute nephritis cases, in which the diet should consist only of fruit juices for several days. Again in the very late stages of nephritis with nitrogen retention, proteins may be eliminated for 4 or 5 days only.

To treat nephrosis, bring the plasma proteins up to par by the use of transfusions or intramuscular injections of the plasma without cells. In exceptional cases a heavy colloid such as acacia should be given. The main thing, however, is a diet abundant in proteins. When the plasma protein drops to 5.5, the critical level, restrict salt, but not before this. In the case of hard, nondependent edema, practice moderate salt and fluid restriction, and give mild diuretics. Ammonium chloride and caffeine may be of help. In the case of dependent edema there is usually accompanying heart failure. In such cases the heart must be treated. Numerous punctures of the dependent parts, removing ascites, *etc.*, may be life-saving.

In discussion, Reid Nebinger, of Danville, agreed with Dr. Flock that the time of the year, referring to mastoid conditions, is important. At the Geisinger Memorial Hospital 80 per cent of the cases are encountered from Jan. 1 to May 1. As long, hard winters, may lower the vitality of children, he recommended general measures for counteracting winter malnutrition. He agreed that operation is best done in the second or third week, but that each case is a law unto itself. Reoperation in his experience has usually been caused by a focal infection from the tonsils and adenoids. He discussed petrous tip infection, having encountered 2 cases, with recovery. They are usually of long duration. Cases of facial palsy with mastoiditis, usually start to show improvement in a few days if they are going to at all. An obstinate facial palsy may be due to intracranial pressure. P. Harold Decker spoke from the preventive standpoint and recommended removal of diseased tonsils and adenoids in the summer and of teaching children how to blow their nose. Eighty per cent of otitis media cases have mastoiditis. Early opening of the drum is recommended. He criticized the use of many of the medicaments dropped into the ear, especially prior to opening the drum. Roentgen-ray studies do not always show the true pathology.

Frederic C. Lechner stated that nephritis ranks fourth or fifth as the cause of death. He touched on the swing to a higher protein diet, and recommended

maintenance of protein levels in cases of nephrosis. He recommended the O'Hare tables as good dietary guides to follow. Nephrosis with nondependent edema may be occasionally helped by glucose or calcium intravenously. It has been his custom to feed proteins where they are depleted until the nonprotein nitrogen is 40, transfusion being necessary in some cases. Spinal drainage in the uremia of children is of occasional help along with injections of magnesium sulphate. A. Rowland Kirch emphasized that in hypertension, less attention be given to the kidneys. Fifty per cent of the patients die of heart failure; 40 per cent of brain accidents, and only 10 per cent die of kidney failure.

LARUE M. HOFFMAN, *Reporter*.

MIFFLIN

April 5, 1934

The meeting was held at the Lewistown Hospital, President A. Reid Leopold in the chair, with 14 members present. Oscar M. Weaver, of Lewistown, read a paper on "Bone Tumors," illustrated with roentgenograms.

Dr. Weaver said in part: The diagnosis of bone tumors is almost impossible without roentgen-ray study. Fortunately these tumors are rare. The cardinal factors in making a diagnosis are the origin of the tumor; presence or absence of bone production; the condition of the cortex; and invasion. All bone tumors are either primary or metastatic. Bone production does not take place in carcinoma or sarcoma. Therefore, if bone production exists within the tumor these malignant growths can be ruled out. It must be determined whether the cortex is present or absent, and if present, whether it is expanded in a spherical or longitudinal manner. The condition of the cortex is very important. Invasion is the hardest thing to determine, and yet is the most important, because if it can be definitely established that the growth is invasive, that it does not infiltrate into bone or soft tissue, then we know the diagnosis is malignancy.

In addition to the 4 cardinal points, there are 3 laws of probabilities: Age; sex; and, bone involvement.

The classical histologic description of the various bone tumors was outlined.

A. REID LEOPOLD, *Reporter*.

MONTOUR

March 16, 1934

The meeting was held at 8:30 p. m., in the State Hospital, Danville. The scientific portion of the program consisted of a symposium on blood dyscrasias. Henry F. Hunt read a paper on "Common Blood Dyscrasias," saying in part: Diseases of the blood, manifested by changes in the number or character of blood cells, are diseases of the blood forming organs. To study the basis for these changes, it is necessary to understand the origin of blood cells. This paper is based on the modified monophyletic or unitarian view, which is that all blood cells originate from the same type cell—the reticulo-endothelial cell. The part played by these cells in disease is shown at the necropsy of a patient with a blood dyscrasia. In acute leukosis, the reticulo-endothelial cells proliferate producing myelocytes or lymphocytes. These in turn are the predominating cells in circulation, giving, as a result, the basis for a classification

of these diseases. In like manner each type of cell may be traced to the reticulo-endothelial cell.

Secondary anemia occurs as an incident in a primary disease giving a reduction in all elements of the blood.

Pernicious anemia is a dyscrasia of the red blood cells which is manifest by decrease in the number of cells, and these showing immaturity. The parent cell, megaloblasts, can be found at times normoblasts. Changes in the white blood cells are secondary, but if the reticulo-endothelial system is carrying too heavy a burden and infection is present, these too show marked changes. Under liver therapy these changes reverse themselves and the cells return to normal. This treatment is usually followed by the immediate increase of reticulocytes.

Acute leukosis includes leukemias, acute lymphatic, and myelogenous and acute monocytic. The blood smears show large numbers of mononuclear cells of the type depending upon the disease. Again the immature cells predominate and in addition there are usually marked changes in red blood cells.

Chronic leukosis is the same as in the acute forms but the abnormal stimulation of reticulo-endothelial system is less severe; however, there are still present many immature cells of specific type. It may be difficult to distinguish the immature myeloid and lymphatic cells, but the number of adult granular leukocytes or lymphocytes aid in the diagnosis.

Upon this same basis the remaining blood dyscrasia may be classified and studied.

"Roentgen-ray Treatment of Certain Blood Diseases," by Sydney J. Hawley. Dr. Hawley outlined the utility of roentgen-ray therapy in certain of the common blood dyscrasias, pointing out that in no cases could roentgen-ray therapy be regarded as a cure; it produced temporary regression in chronic myelogenous and lymphatic leukemia and polycythemia vera. The treatments are painless and the patient can usually proceed with light occupations while he is being treated. He reported the treatment of 2 cases of thrombocytopenic purpura in 2 males which had produced remissions lasting for 2 years. Treatment of 3 cases in females was unsuccessful and splenectomy was necessary.

"The Blood Dyscrasias as Related to the Nervous and Mental Symptoms Produced by Them," by Robert R. Hays. Some of the diseases of the blood which produce nervous symptoms are: Simple achlorhydric anemia, aplastic anemia, pernicious anemia, erythremia, myeloid leukemia. Pernicious anemia is often associated with combined sclerosis of the spinal cord. The sclerosis may be predominantly of the dorsal column or of the pyramidal tracts, and is occasionally of a mixed type, involving both these columns. There is still another type in which similar lesions occur in the brain in both the grey and white matter. Erythremia produces headache, vertigo, irritability, insomnia, parasthesias, staggering gait, and thickness of speech. Myeloid leukemia rarely shows involvement of the nervous system; if it does, various pictures result as the leukemic infiltration may occur anywhere. Hodgkin's disease sometimes produces neuritic pains due to pressure of the glandular enlargements on the spinal nerves.

HENRY F. HUNT, *Reporter*.

PHILADELPHIA

March 14, 1934

The meeting was Intern's Night, the papers being read by interns.

"Artificial Pneumothorax in the Treatment of Lobar

Pneumonia," by Albert Behrend, based upon a study made at the Philadelphia General Hospital by Albert Behrend, Roscoe B. G. Cowper, and Robert V. Cohen, of 11 cases in the medical wards. (This complete paper appears in *The Weekly Roster and Medical Digest*, March 25, 1934). The rationale upon which the treatment is based and the experimental work in the lower animals were reviewed, giving the history of the evolution and development of this type of therapy in connection with lobar pneumonia. The mortality experience (48.4 per cent) with lobar pneumonia at Philadelphia General Hospital was recited with the view of affording justification for more efficient treatment. The mortality among the patients treated with artificial pneumothorax was 18.1 per cent (25 cases with 3 deaths). Eleven cases of this group (ages of the patients ranging from 15 to 54 years) were selected for intensive study. Of these one died from overwhelming bacteremia and toxemia, and one from pneumococcal meningitis on the twenty-first day of the disease; neither could be attributed to the treatment. The most striking result of the treatment in all cases was the prompt relief of the pain and dyspnea. The early establishment of convalescence also was marked.

"Diabetes: The Patient, Physician, and Hospital," by J. L. Armbruster, also of Philadelphia General Hospital. This paper covered the work done in this hospital and emphasized the great hazard of the complications that accompany diabetes. He stressed the need of greater familiarity with the general trend of the blood sugar curve and the available resources in the matter of computing the diet on the basis of protein, fat, and carbohydrate requirements. The importance of the hospital with its elaborate chemical laboratory facilities in this respect was emphasized. The proper utilization of such facilities relieves the hospital of ultimate expense in the matter of the care of bedridden diabetics from one cause or another.

"Hypoglycemia as a Cause of Mental Symptoms," by J. Greenwood, Jr., of the Philadelphia General Hospital. He analyzed previous studies in this field and concluded that it would be desirable to review the blood chemistry studies in all neurotic and psychiatric patients in order to eliminate the possibility of hypoglycemia as an etiologic factor.

"Preliminary Report of the Clinical Applications of Bacteriophage," by J. W. Love, Philadelphia General Hospital. This laboratory study revolved around the acceptance of d'Herelle's theory that the bacteriophage particle is an autonomous ultramicrobe, a strict parasite multiplying within the body substance of growing sensitive bacteria and capable of a wide range of adaptation, all the numerous races being members of a single highly plastic species. The elaborateness of this theory and its practical applications were very fully delineated.

"Treatment of Fractures of the Lower Third of the Leg," by W. H. Brown, of the Episcopal Hospital. It is difficult to abstract a comprehensive study such as this without destroying it. The Böhler treatment was especially emphasized.

"Favism," was described and the history of a case given by John C. Ullery, of the Pennsylvania Hospital. This syndrome is caused by inhalation from certain Italian bean plants when in blossom, or by the ingestion of the beans (*vicia fava*) and characterized by an acute febrile anemia with jaundice, hematuria, and hemoglobinuria. It occurs most frequently in Sicily and southern Italy and most of the reports are to be found in the Italian literature. The case herein described was previously reported by Thomas McCrae and J. C. Ul-

lery in *The Journal of the American Medical Association*, Oct. 28, 1933, and was observed in the service of Dr. McCrac at the Pennsylvania Hospital.

March 28

The meeting was one of the largest held during this year, over 450 physicians in attendance. "Hyperthyroidism" was the title of the paper presented by Frank H. Lahey of the Lahey Clinic, Boston, Mass. In the matter of diagnosis he mentioned the great value of the eye symptoms, which as a rule are never absent. Very rarely will toxic goiter be present without some degree of stare. The size of the gland plays no part relatively in the degree of intoxication. Some of the most seriously intoxicated patients with hyperthyroidism have had normally sized or even small thyroid glands. Firmness or density of the gland, however, is constant. The recognition of the disease in children, especially the differentiation of the ordinary reactions of childhood from the reactions of hyperthyroidism is extremely difficult. Slides emphasizing these features were shown. He advises the performance of the hyperthyroid operation in 2 stages, although occasionally the one stage is desirable. The mortality in children is slightly higher than in adults; the end results are just as good. The clinical signs are exactly the same. The tendency to myxedema is higher in children. He referred to the type known as apathetic thyroid, which is still exophthalmic goiter but of the burned-out variety that has existed a long time and is observed in elderly persons whose reactions are essentially different for all stimuli; consequently it often escapes recognition and diagnosis. This type is distinguished by the absence of eye symptoms, and enlargement of the thyroid gland may be slight or even absent. It is small, firm, and pebbly; the facies are not activated or anxious; the skin is cool, wrinkled, and pigmented; the apex beat is not pounding and forcible, and the pulse rate is not markedly elevated, seldom over 110 to 120. The basal metabolism rate is but moderately elevated, 25, 30, or 35. It is particularly dangerous because this type of patient, running a pulse of but 110, may mislead the surgeon into performing a total operation at one sitting with the result that the patient succumbs unexpectedly, with a relatively slow pulse, never activated, but smollient and comatose. In the activated cases, the wild-eyed girl type, that goes wrong after too much surgery, the patient dies delirious, activated, thrashing around in bed with an uncountable pulse rate. The diagnosis of the case without the frank stigmata of the disease is not easy, but great loss of weight distributed over a long period of time, a persistent myokymia, and moderate but persistently elevated pulse should direct attention towards the possibility of an apathetic type of hyperthyroidism. Such cases call for a two-stage operation and under such circumstances the results are as satisfactory as in the activated type of hyperthyroidism.

The seriousness of acute thyroid crisis was stressed. This phenomenon may be suspected in the presence of unexplained persistently rising pulse rate while the patient is at rest in bed; if the patient, previously mentally clear, begins to show signs of irrationalism, and if vomiting, diarrhea, or evidences of infection become manifest. When discovered early, the fluid and fuel needs of such a patient may be met by intravenous injections. At the Lahey Clinic patients are given 40 to 60 drops of salt solution containing 5 per cent glucose per minute the 24 hours round. They are given 500-600-700 drams of glucose in 24 hours but never more

than 5 per cent glucose solution. No operation is performed if combustion is getting heavy. The administration of iodine has been satisfactory in this clinic, 50 minims of Lugol's solution in salt solution being used with good results. Operation is deferred until 3 or 4 weeks after the crisis has passed. Half of the thyroid is then removed and 6 weeks later the remainder.

A number of slides were shown illustrating the facies of the disease before and after operation. Emphasis was laid upon the necessity of protecting the eyes when exophthalmos is pronounced, from the occurrence of corneal ulcer which endangers vision. Treatment must at times be directed towards this one objective. Sewing the lids together may be necessary. Regarding thyroid heart, cardiac pathology does not exist to any marked degree in hyperthyroidism. Cardiac decompensation associated with prolonged hyperthyroidism occurs not in the young but in the aged who have lived long enough to have acquired it. The most common cause of auricular fibrillation is hyperthyroidism. If the hyperthyroidism is removed, 100 per cent of the cases are relieved of the transient auricular fibrillation.

Regarding the use of iodine in hyperthyroidism, iodine will not cure exophthalmic goiter. Such a case may appear to be arrested but the condition is still active and requires surgical treatment. If the patient is not to be operated upon, the administration of iodine is permissible; but if he is to be operated upon, iodine is contraindicated as it increases the hazard. The results of various blood studies were given, especially as concerns the relation between hyperthyroidism and diabetes. The importance of good surgery correlated with accurate studies by competent medical men and especially cardiologists, in order that the best end results might be obtained in this field, was stressed.

In discussion, Charles H. Frazier referred especially to the thyroid in pregnancy and stated that under no circumstances should a pregnancy be terminated because of hyperthyroidism, with which Dr. Lahey agreed. Dr. Frazier confines his operations to the more severe forms of hyperthyroidism in pregnancy while Dr. Lahey operates upon the mild cases also, lest they become severely toxic and demand operation when conditions are not so promising. The relationship between psychosis and hyperthyroidism was mentioned, the incidence being small in Dr. Frazier's experience while Dr. Lahey appears to have had sufficient to guide him in humoring those with such manifestations. Dr. Frazier has found that the removal of a toxic goiter helps the tuberculosis patient towards recovery. He also emphasized the important points relative to thyroid crisis brought out by Dr. Lahey. John O. Bower called attention to the highly perfected organization in the successfully operated thyroid clinics and showed slides with statistics to confirm this statement. The best results were obtained in the special clinics. Israel Bram made a plea for the nonsurgical treatment of goiter.

April 11

The meeting constituted Woman's Medical College Night. "The Prophylaxis of Bronchiectasis," was discussed by Chevalier Jackson, and illustrated by extemporaneous colored sketches by the speaker. The normal picture seen by the bronchoscope was depicted. The picture presented by bronchiectasis was then drawn to show the contrasting features. The foul odor of the latter condition was especially stressed. The presence of cicatricial tissue streaked with blood vessels was also emphasized. Stagnation of the secretions within the bronchus was designated as the principal factor in the

production of the disease. Viscosity of the secretions prevents their ordinary evacuation, and putrefaction follows. He urged the aspiration of this purulent secretion before dilatation of the bronchus could ensue from its accumulation. Along with the bronchoscopic aspiration use the vaccines, which should be prepared from the material found at the bottom of the accumulation, since it is from this septic material that the initial organisms may be obtained. Vaccines prepared from other sources are of less value. Generalized medical care and attention are likewise essential to the prevention and treatment of these cases, not the least of which treatment should be 14 to 16 hours of rest daily. Sedatives should be avoided. Coughing should be encouraged and not checked. Regular bronchoscopic aspiration is indispensable to these cases.

Emily L. Van Loon, in discussing the same subject, attributed the condition to preëxisting sinusitis in a great many instances. Treatment directed towards the sinuses tends to lessen the symptoms manifested by the bronchiectasis. She stressed the difficulties attendant upon the treatment of sinus conditions especially in children but particularly urged intensive attention to this condition. A number of slides were shown depicting the condition.

"Amebic Dysentery" was presented by J. Stewart Rodman, who cited the interest created by the recent increase in the number of cases of this disease in the temperate climates, and the necessity of reviving the diagnostic knowledge in view of the complications presented, which served to confuse the conditions with other well-known surgical conditions. Ordinarily the surgeon is concerned only with the complications presented by already diagnosed cases. Acute cases are likely to present themselves to the surgeon first and occasion confusion if not embarrassment. The pathology of amebic dysentery frequently varies but little from that of acute appendicitis, intestinal tuberculosis, mucous colitis, bacillary dysentery, and 10 malignant tumors. The diagnosis rests upon finding the parasites in the stools. In the acute phases of amebic dysentery the parasites are not passed and laboratory diagnosis may not be possible, but later when the parasites become encysted they are readily recognized. Particular emphasis was laid upon the appreciation of the fact that amebic dysentery may be transmitted by carriers and that they are more common in this climate than is usually supposed.

"The Pathology of Amebic Dysentery" was discussed by Helen Ingleby. The presence of the ameba or the cysts in the stool is distinctive of the disease but they are more likely to be found in liquid than in formed stools. Several variations in the character of the stools make the finding of the ameba or cysts impossible of detection. If the patient has been treated with emetine, the ameba will not be found. A number of slides were shown to depict the morphology of the ameba and the cysts.

"The Treatment of Amebic Dysentery," was discussed by Henry D. Jump, from the standpoint of the internist. He divided it into 2 stages, that of the acute stage when dysentery is the outstanding feature and the chronic when the patients are the carriers of the disease. In the former, rest in bed and liquid diet are essential. Dehydration is met by intravenous infusion of dextrose, 500 to 1000 c.c. of 10 per cent solution in fresh, doubly distilled water. During convalescence soft diet gradually increased to full diet, but one always devoid of roughage until the colitis is entirely obviated. Tenesmus is relieved by ice suppositories, ice-water enemata, and

morphine hyperdermically. For the direct treatment of the disease, emetine hydrochloride or emetine bismuth iodide is indicated. The former is given by the mouth at night in one-half grain dose in salol covered pills, and one grain subcutaneously daily for 10 or 12 days. Any resultant nausea may be controlled by laudanum in 5, 10, or 15 drop doses preceding the next administration of the emetine. Emetine may cause diarrhea, neuritis, nervous and muscular weakness, myocarditis, and even fatal complication if used past its physiologic limit. While this preparation will dispose of the amebae it has little effect on the cysts. Two iodine preparations are recommended when prompt improvement fails to follow the use of emetine, namely, chiniofon (26 per cent) and vioform (37 per cent 1 and 2 per cent Cl.). Chiniofon is given by mouth and by enema. The treatment is continued 10 days; $7\frac{1}{2}$ grains 3 times daily by mouth, and 200 c. c. (7 ounces) of 2 per cent solution in water by bowel. The enema is given slowly and must be retained several hours. Vioform is given by mouth in 10 to 12 grain doses once a day for 10 days. In the chronic cases, or carriers, in which cysts persist in spite of the treatment, a strong arsenic derivative such as acetarsone, should be administered by mouth.

"Encephalitis in Children," apparently congenital and due to maternal influenza, was presented by Winifred Bayard Stewart, who cited the case histories of a group of children born of mothers suffering from influenza in the later months of pregnancy. None of the mothers had symptoms suggestive of epidemic encephalitis nor its sequelae. The children on the other hand did show character defects typical of postencephalitic behavior change and in 5 of the cases presented there was evidence of organic involvement of the extrapyramidal system. Dr. Donald Davidson, of the Municipal Court, in discussing this paper attributed certain types of delinquency coming under his observation to the occurrence of encephalitis. The epidemic of influenza in 1918 doubtless affected many pregnant women, and a great many of the offspring of this group eventually came within the scope of the Municipal Court.

April 18

This meeting was the occasion of the bestowal of the Dr. I. P. Strittmatter Award in recognition of outstanding and meritorious accomplishment in the field of medicine to Philip F. Williams, whose work in connection with the study of the local maternal mortality problem has just been completed after 3 years' activity with the project. Formal recommendation of the recipient was made in a brief speech by George P. Müller and formal bestowal was made by Basil T. Beltran for the committee. A grateful response was made by Dr. Williams.

The DaCosta Foundation was described by John A. McGlinn who introduced George W. Crile of Cleveland, Ohio, as the orator. After a short reference to the foundation and Dr. DaCosta, the speaker passed on to the main topic of his address, "Pathologic Physiology of the Neuro-glandular System," in which he presented a highly original conception of the manner in which stimuli, internal and external, express themselves by hyperactivity of the various vital organs thereby suggesting pathology, although in reality being but disturbances of an otherwise normal physiology. He stated that it would appear that the time has come when we may put out of our minds the conception that any unit of the great energy system of the organism has inherent initiative. The brain, for instance, has no

power of work inherent within itself; its specific work is the result of energy contributed to the brain from outside itself. The physical and chemical forces of internal and external environment determine the activities of the brain, the glands, the muscles and other parts of the living anatomy. The brain is a biologic switchboard with an intricate network, whose receiver sets—the special senses—are attuned with infinite exactness but which must wait until the energy for which they are attuned plays upon them, thereby putting them into action. When, however, these mechanisms become so facilitated that they become active beyond the bounds of adaptation and beneficial work, the activity of the nerves, glands, muscles, *etc.*, being qualitatively normal but quantitatively abnormal, a state of pathologic physiology is established. When the brain, thyroid and adrenal-sympathetic system attain such a condition the organism is speeded to destruction and even death. When these organs are equally speeded the condition called hyperthyroidism results. It should be termed "hyperkineticism." The condition need not involve all these structures but may confine itself to one or more, equally or otherwise. Many instances were cited to confirm the understanding of this intricate subject. Reduced to its final analysis this interpretation assumes a nervous energy producing mechanism which may over-activate the functioning of the adrenal glands from whence it exhausts itself over the brain, the thyroid, and other susceptible parts of the body. This excessive activity appears to be initiated through the special senses. Several clinical instances were mentioned to illustrate the functioning of this biologic hook-up in health and disease. Among these are tachycardia, Raynaud's disease, neurocirculatory asthenia, pyloric sphincterismus, spastic constipation, diabetes, and polyglandular disease. The fact that these conditions are peculiar to civilized man alone, would tend to confirm the contentions of the essayist. Normal stimuli in excess produce abnormal reactions. Eventually such abnormal reactions may be attended with structural alterations, if continued unchecked. If this reasoning be correct then neurocirculatory asthenia, hyperthyroidism, peptic ulcer, diabetes, and Raynaud's disease belong to the group of the so-called kinetic diseases, diseases of pathologic physiology bred in our phylogeny in which there is sustained abnormally high activity of the entire brain-adrenal-sympathetic system.

The clinical tests of this reasoning comprised 314 operations on the adrenal glands, 52 of which were adrenalectomies and 262 were denervations. The speaker seemed to attribute greater benefit to the denervation procedure than to other surgical methods employed in this group of cases and gave clinical histories of a few cases which would justify this confidence. The procedure was disappointing in hypertension. It is useless in Raynaud's disease, and contraindicated in the presence of psychoses, neurasthenia, or any condition in which the seat of the disease is in the brain. In epilepsy the results have been encouraging. In neurocirculatory asthenia, hyperthyroidism, peptic ulcer, the results were extremely good. In cases of diabetes with hyperthyroidism, the condition was greatly ameliorated. In polyglandular disease the results were extraordinary. The essence of the paper was the recommendation of the operation of adrenal denervation for the relief and cure of the conditions mentioned.

SAMUEL HORTON BROWN, *Reporter.*

WARREN

March 20, 1934

The meeting was held at the Conewango Club with 26 members present. William K. Skinner, of the State Hospital, was elected to membership.

The subject for discussion was the "Use and Abuse of Drugs." Hamblen C. Eaton called attention to the Council on Pharmacy and Chemistry of the American Medical Association and its publications and lists; and the importance of the *U. S. Pharmacopeia* and the *National Formulary* in bringing to the attention of physicians important medicinal preparations in their simplest and most economical form. He dwelt on the fact that the Emergency Board was educating physicians in obliging them to use the official preparations rather than those of a similar nature but marketed under some trade name at a higher price. Tom K. Larsen read a list of preparations and drugs prescribed by physicians while on service at the hospital and how much less expensive the same drugs prescribed under their official names could be obtained. His comparison was illuminating and he urged the members to avoid the trade names whenever possible and familiarize themselves with the *National Formulary* and *U. S. Pharmacopeia* preparations.

Michael V. Ball dwelt on the part magic, superstition and suggestion had in the development of treatment both in the use of drugs and other agents. He called attention to Dr. Cabot's lecture, "Truth in Medicine," and quoted from him the evil of prescribing a placebo in that it tends to increase the public's habit of depending on drugs in diseases that are self-limited or if they are of doubtful value. The medical profession should do more so to educate the patient that if drugs are needed their value will be appreciated. The discussion indicated that able men in the profession have succeeded in using comparatively few medicaments.

Hosts for the dinner which followed were R. F. Otterbein, Hubert J. Phillips, George T. Pryor, and Hugh R. Robertson.

April 16

A symposium on "Encephalitis" was held at the Warren State Hospital, under the direction of the medical staff. Dr. Brinkhouse spoke about the various epidemics of this disease, that although known for 200 years and even partially described by Hippocrates it was not until 1889 when under the term "Nona" it appeared in epidemic form that attention was directed to it and in 1917 it was named and more minutely described by Von Economo, of Vienna. Epidemics have been noted every few years, that of 1920 world-wide; the last one of any severity happened in St. Louis, in 1933. The symptoms of the acute stage were described by Hilding A. Bengs, who said these symptoms may simulate any central nervous disorder.

The course is often insidious and very irregular. There may be a low grade fever of 2 weeks' or more duration, followed by asthenia out of proportion to the fever with some lethargy more or less prominent. The stupor is of an emotional nature rather than intellectual. Following this there are some palsies about face and eye muscles involving third, sixth, and seventh nerves and finally there comes the involvement of the central nervous system which may be localized or may remain unlocalized, with disturbed gait, tremor, and change in conduct. It can be mistaken for influenza, typhoid or botulism. Hamblen C. Eaton described the pathology of the acute form as a hemorrhagic lesion, af-

fecting various areas of the brain, never any suppuration. The hemorrhages are punctiform and throughout the hemispheres with some exudate forming about the basal ganglia and third ventricle. In more chronic cases cells are found degenerated in and about the substantia nigra.

John C. Urbaitis exhibited a motion picture of several patients which demonstrated the Parkinsonian tremor which develops some time after the acute symptoms.

William K. Skinner gave case histories illustrating the changed mentality and antisocial conduct which sooner or later necessitate confinement in hospitals for the mentally ill.

In children it is difficult to distinguish from the early stages of dementia precox. Truancy, laziness, tendency to steal, to become unruly or to commit sex crimes may show itself in a young person of previously good habits. Then later on the central nervous system becomes involved. Sometimes these changes in conduct are very slight and escape attention, until the tremor and disturbance in gait develops. As to treatment, nothing as yet satisfactory. Experiments with diathermy to cause hyperpyrexia are being undertaken. Paralysis agitans occurs usually in older persons in several members of a family and without any premonitory symptoms.

The meeting was attended by 25 members.

The medical staff of the hospital acted as hosts for a dinner which followed the meeting.

MICHAEL V. BALL, *Reporter.*

WASHINGTON

March 14, 1934

The meeting was held in the Washington Hospital at 8 p. m., President William J. L. McCullough, presiding.

William H. Mayer, of Pittsburgh, a former president of the State Medical Society, was the guest speaker, choosing as his subject, "A Physician Looks Into the Future," who said in part: In the time of stress there is plenty of talk about state medicine, contract practice, and group medicine centered around hospitals. It is at a time like this that the members of our profession should stand firmly together conscious of the fact that in unity there is strength. The time for petty politics is past. We should not hold ourselves up as a voting clique. We have maneuvered well. Those in power at Washington and at the capitols of each state are aware of our importance. All experiments along the lines of contract medicine should be under the control and management of our State and county medical societies rather than in the hands of lay committees. If anything is to be experimented upon it should be by the medical organization.

While always on our honor and in accordance with the ethics of our profession, it is especially important now that every one remain above criticism, as the faults of the few bring condemnation of the profession in general. It is still the noblest profession. Though we are taken advantage of, overworked, underpaid, very quickly condemned, and our services much undervalued, each of us must always remember the nobility of our profession; not stooping to anything low. Remember we have a heritage from the centuries that we want to will over to our children, a heritage of which we and they can always be proud of.

The healing art and science have advanced with the ages in rapid strides. We have the power of giving

life, relieving suffering, acting as councilor and advisor. The brilliance of our intellects, the skill of our hands, the purity of our souls are torchbearers into humanity in this time of stress, with its nerves, bad hearts, cancers, and sick minds. We must remember to carry on; to hand down a noble heritage to posterity.

April 11

The meeting was held at the Washington Hospital, 8 p. m., President William John L. McCullough presiding. Secretary Albert E. Thompson notified the society that all those wishing to participate in the R. W. D. relief medical service must send in their names to signify their willingness.

The scientific program was on "Encephalitis." Two cases were reported, one by Walter W. Schmid, Monongahela, and one by J. W. G. Hamman, Washington. A brief résumé, including the high points in differential diagnosis, was taken up by John A. Malcolm, Pittsburgh.

The case reported by Dr. Schmid was typical of encephalitis, characterized by sudden onset, headache, drowsiness, and slight rigidity of the neck, the symptoms being present in an adult who recovered. Dr. Hamman reported an adult patient who died. The symptoms were paralysis of the lower half of the right side of the face, headache, drowsiness, rigidity of the neck, with a high elevation of temperature after the middle course of the illness. The necropsy in this patient disclosed a meningioma in the anterior left lobe, with hemorrhage and congestion surrounding the tumor, and active hyperemia of the meninges. One of the repeated lumbar punctures, part of the treatment, showed a hemolytic streptococcal culture.

Dr. Malcolm, in reviewing encephalitis before taking up differential diagnosis in the 2 cases, stated that it was a rare disease, even including the epidemic cases, in comparison with the population. The disease is usually characterized by slight elevation of temperature, drowsiness, bitter complaint of headache which is hard to control, slight rigidity of the neck, and paralyzes that are indefinite in character and are not persistent. The temperature is usually around 99° F. and 100° F. and the spinal cell count may be anywhere from 30 up to 400, but nothing definitely diagnostic. If the patient recovers after a few weeks, encephalitis is probably the current diagnosis. If there is a high temperature or if death occurs, the illness is invariably due to some other cause. In considering encephalitis, one must remember that there is an encephalitis associated with such diseases as brain tumor, anterior poliomyelitis, toxic infectious conditions, metabolic diseases such as nephritis and diabetes, secondary syphilis, tuberculous meningitis, mental diseases, and toxic encephalitic manifestations produced by long use of drugs such as those that are administered in actively nervous or maniacal cases. Patients in whom there is a prolonged drowsiness for weeks and months are usually mental cases, such as a catatonic stage of dementia precox. The cases in which one is called upon most often to make a differential diagnosis are those that have been under sedative medication for some other disease, the drugs inducing a drowsiness and low grade irritability, with masklike face. The usual course to follow in the cure of these conditions is removal of the drugs and forcing elimination.

When temperatures are high, the end results usually designate that some condition other than the encephalitis is present. Why a brain tumor may show a sud-

den onset like encephalitis is explained by the tumor being in a silent area of the brain. It is only when reactionary hemorrhagic extravasations occur, increasing the pressure, do symptoms like encephalitis and suddenness of onset manifest themselves.

A series of encephalitis cases was reported in Europe following vaccination against smallpox; to avoid such catastrophes, Robert A. Knox, in the discussion, advanced the theory that children should be vaccinated at a younger age than formerly, preferring the period under age 2, to a few months before school age.

SAMUEL A. RUBEN, *Reporter*.

WYOMING

April 11, 1934

The regular quarterly meeting was held in Tunkhannock, the Woman's Auxiliary joining in a luncheon.

An invitation from the Philadelphia County Society to send a speaker on medical economics to discuss medical problems with our society was read and discussed. It was decided to defer action at present with the possibility of having a joint meeting in the future with some neighboring societies.

In response to a letter from Harold A. Miller, director, Emergency Medical Relief in Pennsylvania, the society expressed its willingness to participate in the caring for accidental injuries sustained by workers on relief projects. William W. Lazarus asked the members to cooperate in giving toxoid to children on relief, when such was supplied.

Stanley D. Conklin and Thomas Thomas of the Packer Hospital staff, Sayre, Pa., were guests. Dr. Conklin presented in detail as far as worked out locally, the plan of Donald Guthrie, president of the State Society, for postgraduate work. The plan is to have a series of 6 clinics and lectures to be given at Packer Hospital, one session a week for 6 weeks. Prominent teachers from our State medical schools are to conduct the courses; a fee of \$10 to be charged to each member enrolling.

The 9 members present voted to enroll for the course. Some of the topics suggested by members as desirable for study are pediatrics, endocrinology, obstetrics, office gynecology, office proctology, dermatology, and immunology.

Plans were made for our next meeting to be held at Dr. Lazarus' "shack" on a cliff high over the beautiful Susquehanna. ARTHUR B. DAVENPORT, *Secretary*.

YORK

March 17, 1934

The meeting was held at York, President James F. Wood in the chair.

Edward Campbell, urologist, Abington Memorial Hospital, Abington, Pa., read a paper on "Renal Function and Compensation." He said, in part: There is a regulatory function of kidneys: balance between the 2 kidneys and various parts of the same kidney; the glomerular fluid is protein-free blood plasma; the threshold and nonthreshold substances were discussed; and the acidosis of diabetes and of uremia were contrasted as to their cause. Tubular reabsorption of water

is important in the total 24-hour output of urine, and depends on the osmotic pressure of the blood. Normal kidneys accustom themselves to "pre-urea" conditions. The native reserve power of the kidney was elaborated.

Alexander Randall, professor of urology, University of Pennsylvania Medical School, Philadelphia, spoke on "The Obstructive Lesions of the Genito-Urinary Tract." He said in part: Removal of stone is no longer a completed operation; cause of stone must be proved. Overwhelming part of human excretion is through kidneys. Obstructive lesions no longer disease entities. Intravenous urography has revolutionized study.

Various lantern slides were shown.

In discussion, Herman A. Gailey, York, asked if Dr. Randall had abandoned retrograde pyelography in favor of the intravenous method; the importance of not judging prostatic obstruction by rectal examination alone. Julius H. Comroe, York, asked Dr. Randall to explain the use and abuse of contrivances for ptosed kidney. W. Frank Gemmill, York, asked about renal reflex of pain and its effect on the gastro-intestinal tract; he has had several cases of ureterocele and valves; he asked if gonococcal pyonephrosis is hematogenic or lymphatic.

Dr. Randall, in closing, stated that the ascending infection in gonococcal patients was unknown unless the posterior urethra was involved, otherwise it would have to be a blood stream or lymphatic infection; intravesical ureterocele is due to stenosis of ureteral orifices; sacral sympathectomy is advised for megalo-ureter; do not wait too long after operating one side in hydronephrosis; vesiculitis to be diagnosed only after all other diseases are excluded. Nephropexy is again popular for ptosis; belts are no good; 6 months' conservative care and treatment in renal ptosis first; in nephropexy, kidney, ureter, and field of fixation should be prepared with meticulous care; marked relief of symptoms. Pyelography is court of last resort; examiner likes to cystoscope patients as he sometimes can reproduce patient's symptoms. Heretofore, the surgeon waited for gross disease of kidney before operating; earlier study, diagnosis, operation are desired.

April 21

President James F. Wood, Mt. Wolf, in the chair.

George E. Bennett, clinical professor of orthopedic surgery, Johns Hopkins University Medical School, Baltimore, Md., spoke on "Treatment of Fractures of the Neck of the Femur." He said in part: Whitman's adductor treatment marked an advance in the treatment of these fractures; present mortality 12 per cent as against a former mortality of 50 per cent (750 cases reviewed at Hopkins, Union Memorial, and Church Home not including intertrochanteric fractures as latter has union and healing regardless of treatment in 8 weeks).

Fractures of the neck of the femur are divided into subcapital, central, and intertrochanteric. Intracapsular fractures are divided into 2 types: A. Subcapital, (through head above neck), and B. Central, (through the neck itself).

Roentgen ray is necessary for diagnosis. Any person over age 45 giving a history of injury to hip should be treated as fracture until otherwise proved regardless of displacement. (Slides were then shown.)

Treatment is divided into 2 types—operative and non-operative. In the Whitman treatment, break up impaction, length of fractured side same as sound, in adduction; long spica from nipples to toes. Heel rests on

palm of hand with foot in vertical position; this is the test of correction. Do not break up impaction if there is no deformity.

Reference was made to Shand's modification in 1908 and the modification of it by McGlennan, whereby with double spica patient can be moved onto the face. Mention was made of the Roger-Anderson splint.

Immobilization for 12 weeks on an average. The stage of softening of the head of the femur suggests a long immobilization period; rarefaction occurs in head of femur; where head has normal density or calcification, union does not occur but later sepsis takes place in line of fracture in which calcification forms early.

He spoke of the beef-bone doll and of the Smith-Peterson nail of steel, and the autogenous grafts of Ellis Jones, of Los Angeles; Operations dangerous in hands of untrained. Brackett's operation consists in denuding neck and trochanter and setting head up under socket with a high percentage recovering.

Percentage operated upon is higher than those treated conservatively. Roger-Anderson method has great possibilities, is very practical, and sitting posture is preferred. The Carrol denuding modification of the Smith-Peterson technic permits fibrous union in 20 per cent, and, 60 per cent bony union in the head of the femur, with 80 per cent good function.

To summarize: Extend treatment for 6 months; Roger-Anderson reduction without anesthetic; a technic combining the Smith-Peterson nail with a blending of the Westcott and Carrol type followed by roentgen ray is most desirable; undoubtedly there will be more operative work done in these fractures.

In discussion, Roland Jessop, York, said that complications to be treated are: Diabetes, nephritis, etc.; objection to Roger-Anderson splint is that it is too rigid a splint; exercise should be allowed to favor circulation; severe pull and stiff spring too rigid. What does speaker think of Russell apparatus to keep knee bent, or even Gatch bed? Must turn patient around every four hours if occasion demands; shouldn't we get action and reaction of muscles? John F. Bacon, York, asked in regard to softening of head, does one keep weight off until roentgen ray shows a healthy condition of fracture line? Frederick W. Wright, Hanover, considers the Roger-Anderson splint perhaps the best, with a preliminary period of observation. John H. Bennett, York, stated the Roger-Anderson splint makes patients more comfortable, has been using it for some time, believes mortality is reduced but end results not much better than before it was advocated; application of any immobilization device is that which is most useful in the specific surgeon's hands.

Dr. Bennett, closing, stated that the Roger-Anderson splint is rather rigid; one desires activity of parts without motion in line of fracture; combine the Roger-Anderson and pin for immobilization of femur which permits removal of splint for other operative procedures. Russell's method in fracture of shaft, if used for head, obtains the same traction as Peckham's method; Gatch bed infrequently permits union. Thomas hip splint for fixation as in tuberculosis of hip joint; up in 6 weeks and in 10 weeks using leg; old days of bag and traction are gone. Softening of head of femur: If at end of 10 to 12 weeks, consistency of head is same as of neck on roentgen ray, then allow weight bearing; younger persons better healing; 25 per cent of all cases must be treated for associated senility.

H. MALCOLM READ, Reporter.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

A SUGGESTION

In view of the fact that the annual meeting of the American Medical Association will be held this year in Cleveland, it is, from our standpoint, sad that there should be but one county in the state of Ohio which has an auxiliary.

At a meeting of the House of Delegates of the Ohio State Medical Society held during the autumn of 1933, Dr. John P. DeWitt (Stark County) requested the official action of the State Association in inaugurating a Woman's Auxiliary in Ohio to assist in the entertainment features at the meeting in Cleveland and for other purposes.

The reaction of the Resolutions Committee to this proposition was, "In view of the fact that only one county in Ohio had a Woman's Auxiliary and in the absence of evidence indicating general interest throughout Ohio in an Auxiliary, we recommend that this matter be left with the county medical societies as a local problem.

Our neighbors to the west have not yet discovered how vital the Auxiliary can be in promoting good fellowship in the profession; in aiding in all health measures recommended by the medical societies and in acting as a link between lay and professional women's organizations, as well as in the social side of the medical gatherings.

When we go to Cleveland in June, can we not make it an objective to be of such service to the association that the usefulness of the Auxiliary to the profession will be recognized for its kindness, its understanding, its helpfulness in promoting attendance at medical meetings, high ideals, and in supplying to the medical benevolence funds the money that would otherwise be diverted into numerous extraneous channels aside from those approved by medical men for professional betterment and community health. Let us endeavor to get the wives, mothers, sisters, and daughters of Ohio physicians enthusiastically behind the slogan, "ORGANIZE OHIO."

Allegheny.—The auxiliary held its spring meeting March 27, in the Hotel Schenley. George W. Grier, president of the Allegheny County Medical Society, outlined the activities of the county medical society for the past year. Colonel Burrell, who was head of the Chemical Welfare Bureau during the World War and since the war has been consulting petroleum engineer, addressed the auxiliary on "Conditions in Russia."

For about 2 years he was engaged by the Soviet Government to organize the Russian petroleum industry.

Mrs. Harold T. Hanson, president of the Mount Lebanon's Woman's Club, sang a group of Japanese songs. Tea was served.

Berks.—The regular meeting of the auxiliary was held April 9, in Medical Hall, at 2 o'clock. Mrs. Wellington D. Griesemer, president, called the meeting to order. The speaker of the afternoon, Mr. Hans Gramm, spoke on "The New Germany" (with special reference to the status of women). Mr. Gramm recently returned from Germany and spoke with authority about this European country that is undergoing so many changes. Mrs. George Leibensperger and Mrs. Arthur A. Cope served tea and sandwiches. Mrs. Frederick W. Knoll presented each one with an orange she brought from Florida.

Mrs. Cecil F. Freed, *Hygeia* chairman, furnished a birthday cake with 10 candles, celebrating the tenth anniversary of the magazine. Mrs. Freed has procured health talks from the American Medical Association, written especially for radio broadcasting, which will be broadcast every Wednesday and Friday morning at 9:10 over WEEU, by a member of the auxiliary.

Mrs. Ralph Hill invited every one to be present at the May meeting to be held at the State Hospital, Wernersville.

Center.—The first auxiliary meeting of 1934 was held March 6, at Old Main, State College, Mrs. Melvin J. Locke presiding. The guest speakers were State President Mrs. Edward Lyon, Williamsport, and Mrs. Henry Zimmerer, Altoona. Mrs. Lyon spoke on the value of the auxiliary to the physician, public relations, and preventive medicine. Mrs. Zimmerer spoke on the leporium at Carrsville, La. Contributions were made to the Medical Benevolence Fund and to the Corinne Keen Freeman National Memorial Fund. Luncheon and a social hour concluded the program.

Chester.—Donald Guthrie, president of The Medical Society of the State of Pennsylvania, addressed the auxiliary and the county society at a joint luncheon meeting, March 20, at the Chester County Hospital. The presidents of near-by county auxiliaries were guests of the local organization: Mrs. William B. Odenatt, Philadelphia County; Mrs. J. Newton Hunsberger and Mrs. John T. MacDonald, Montgomery County; Mrs. Adrian V. B. Orr and Mrs. E. A. Whitney, Delaware County; Mrs. Wellington D. Griesemer and Mrs. Leon C. Darrah, Berks County. Each responded.

At the luncheon, Howard B. Davis, president of the county society, presided and expressed to the auxiliary the appreciation of the society for their coöperation in instituting an educational program. William T. Sharpless, a former president of the State Society, presented Dr. Guthrie, who complimented the feeling of loyalty existing throughout the county, spoke briefly of the work of the State Society, expressing to the auxiliary appreciation for their courage and support of the Medical Benevolence Fund and their effort to carry out the educational plans of the medical group.

The business meeting of the auxiliary followed. Mrs. U. Grant Gifford, president, presided. Mrs. Joseph Scattergood, Jr., announced plans under way for the annual card party for the benefit of the Medical Benevolence Fund. Mrs. Howard Mellor, chairman of Public Relations, announced plans concerning educational health lectures before organizations in the county. Mrs. William Evans announced plans for the placing of *Hygeia* in schools and libraries. The members endorsed the action of the Tuberculosis Society in their effort to establish means in our own county to care for those so afflicted. Mrs. Odenatt announced the Health Institute sponsored by their Philadelphia Auxiliary, held April 10. Mrs. Gifford appointed as delegates Mrs. Henry Pleasants, Jr., Mrs. Wilmer Gallagher, and Mrs. Robert Hughes. Mrs. Joseph Scattergood, Sr., gave an account of a trip during the past summer, "In England with Hedgerows Abloom."

Dauphin.—The regular monthly meeting was held at the Academy of Medicine, Harrisburg, April 17, at 2:30 p. m. Mrs. Jacob M. Peters gave a talk on travel. There was all day sewing of carpet rags for the Blind Association. Luncheon was served. Arrangements are being made for a strawberry festival to be held in June on Mrs. David I. Miller's lawn, proceeds for the welfare work, medical benevolence contributions, and other good works sponsored by the Ways and Means Committee. The Christmas Seal Camp at Highspire opens July 5 and continues until August 30. Fifty dollars will be donated by the auxiliary for the care of 2 children during their 4 weeks' stay at the camp.

Delaware.—The auxiliary held the last of its 4 stated yearly meetings in the Chester Hospital, April 12. Mrs. Adrian V. B. Orr, president, announced a card party to be held at the home of Mrs. Ralph E. Bell, North Monroe St., Media, the proceeds of which will be devoted to the Medical Benevolence Fund. Nearly \$50 was realized at the card party held in the Strath Haven Inn, Swarthmore, April 4.

Mrs. George Armitage submitted the following report of the Nominating Committee: President, Mrs. E. Arthur Whitney; vice president, Mrs. John B. Klopp; secretary, Mrs. Walter A. Landry; treasurer, Mrs. Hoskins.

The auxiliary was entertained by Mrs. Roland G. E. Ullman, Swarthmore, who spoke on "Drama as a Hobby," and read a one-act play. Refreshments were served and Mrs. Linwood B. Hannum, Media, was greeted as a new member.

Erie.—Members of the auxiliary were entertained at bridge and tea, April 2, at the home of Mrs. Chester H. McCallum. Preceding the tea the committee for nominating the officers for the coming year was elected.

Lehigh.—The auxiliary sponsored a spring card party, April 7, which was held in the auditorium of the Woman's Clubhouse, Allentown. There were 125 guests who enjoyed bridge and five hundred. The proceeds will be added to the charity fund which the auxiliary started in January.

The regular business meeting was held, April 10, at 2 p. m., in the Woman's Clubhouse, Allentown. Plans were formulated for a reciprocity tea in observance of Health Week, the second week in May. Dr. H. A. Neville, associate professor of chemistry, Lehigh University, was the speaker, and representatives from all the women's organizations of the city were invited.

Following the business session, 2 readings in Irish and Italian dialect were given by Mrs. Rothenberger, wife

of Dr. M. K. Rothenberger. The hospitality committee, in charge of Mrs. H. J. S. Keim, chairman, entertained at tea.

Luzerne.—Mrs. Clarence W. Prevost, president, presided at the regular business meeting and announced the following executive committee for the year: Mrs. Vivian P. Edwards, Edwardsville; Mrs. Edward Dougherty, Ashley; Mrs. William C. Stiff, Plymouth; Mrs. J. I. Roe, Dallas; Mrs. Thomas R. Gagon, Pittston; Mrs. Stanley Freeman, Mrs. Edward W. Bixby, Mrs. Gerald N. Flugel, Mrs. Charles H. Miner, Mrs. Albert Feinberg, and Mrs. H. G. Guyler, Wilkes-Barre.

Mrs. Miner, a former president, was named general chairman of the fall meeting to be held in conjunction with the State convention of The Medical Society of the State of Pennsylvania, Oct. 1 to 4.

After the meeting, the auxiliary visited the Kirby Health Center. Dr. Charles B. Crittenden, director of the Center, explained the various phases of the institution and told of its purpose and services. Refreshments were served. The next meeting will be a luncheon session at Irem Country Club in May.

Montgomery.—The auxiliary, of which Mrs. Herbert B. Shearer is president, held a card party at the West Norriton Women's Club House, April 5, proceeds of which are to be used for the Medical Benevolence Fund. The party was well attended by auxiliary members and friends. Tea followed.

Northampton.—The regular meeting was held, March 14, at the Hotel Bethlehem, Bethlehem, Mrs. Frank J. Canahan, Mrs. Russell S. Rinker, and Mrs. Eugene Ackerman hostesses. Eighteen members and one guest were present. Mrs. Mitchell Walters was welcomed as a new member. After luncheon, Mrs. Arthur Fox presided at the business session. The treasurer reported a balance of \$87.73.

Mrs. Fox reported the following on the Public Health Committee: Mrs. Frank J. Canahan, Mrs. Clarence D. Hummel, and Mrs. Frank J. Haln. The question of establishing free clinics in relation to public health was discussed and it was mutually agreed to discourage such action as it is in opposition to the policy of the medical society.

The April 11 meeting was held at the Pomfret Club, Easton, Mrs. Burtis M. Hance, Mrs. Leo D. Parry, and Mrs. Edward S. Rosenberry hostesses. There were 22 members present. Following luncheon, the business meeting was held, the president, Mrs. Arthur Fox, presiding. The treasurer reported a balance of \$108.23. It was decided to hold the spring card party at the Northampton Country Club—the date to be announced at the May meeting; price of tickets to be 75 cents.

Philadelphia.—On Tuesday, April 10, the auxiliary held its fourth annual "Health Institute," to which delegates were invited from all near-by auxiliaries and women's clubs. The hall of the County Medical Society's building had been newly painted and fresh draperies and upholstery placed there in time for this occasion. The auditorium was filled almost to capacity with members and delegates to listen to the program by speakers who are among the most outstanding of our medical men. The theme was "Making Life Safe," and beginning with the care of the infant went on through childhood to safety in adult life. The program follows: Greetings, Walter S. Cornell, president, County Medical Society; "Safeguarding the Mother and Her Baby," Philip F. Williams, chairman, Committee on Maternal Welfare of the County Medical Society; "Discipline and

Freedom in the Training of Children," Edwin B. Twitmyer, chairman, department of psychology, University of Pennsylvania; "Health and Art," R. Tait McKenzie, emeritus professor of physical education, University of Pennsylvania; "The Romance of Research," Leonard G. Rowntree, director, Philadelphia Institute for Medical Research; "Postural Deformities," DeForest P. Willard, professor of orthopedics, Graduate School of Medicine, University of Pennsylvania; "Hazards of the Home," Louis H. Clerf, professor of bronchoscopy and esophagoscopy, Jefferson Medical College.

A cafeteria luncheon was served in the Grill Room of the society building between sessions, under the supervision of the auxiliary.

Eight new members were admitted to the auxiliary this month.

Westmoreland.—The meeting was held, March 8, at the home of Mrs. Arthur B. Blackburn, in Latrobe, with the local women and Mrs. James W. Silliman, Bradenville, hostesses. Mrs. Charles C. Crouse, vice president, presided at a short business meeting, owing to the absence of our president, Mrs. John S. Silvis, who was unable to attend on account of an automobile accident en route.

Mrs. H. Albert McMurray, of the Legislative Committee, extended an invitation to luncheon held at the Reform Church in Youngwood, April 12. After luncheon, the afternoon was spent at Mrs. McMurray's home. Penny bingo was played, the proceeds turned over to the treasury. Tea was served. Due to the condition of the weather and icy roads, not as many members were there as expected but guests were invited from Latrobe, making a total of 29 attending.

The April 12 meeting was held in Youngwood. Luncheon was served by Mrs. H. Albert McMurray's Sunday school class of the Reform Church, followed by a short business meeting at Mrs. McMurray's home. It was announced Mrs. William Anderson would give an illustrated talk on antiques at the May meeting. Two new members were welcomed; Mrs. Irwin J. Ober, Latrobe, and Mrs. Charles A. Gobel, Jeannette. Mrs. Dennis Ray Murdock organized the doctors' wives from Greensburg to help in the clinics conducted for the children by the emergency child health organization. The auxiliary is asked to share part of the financial responsibility, so a motion was made and carried to give \$25 from the treasury. Thirty-four members attended the meeting.

Medical News

Births

TO DR. AND MRS. HOBART DODSON, Nanticoke, a son, March 8.

TO DR. AND MRS. PHILIP E. HERTZ, Luzerne, a son, March 6.

TO DR. AND MRS. A. G. GIBBS, Nanticoke, a daughter, February 12.

TO DR. AND MRS. WILLIAM H. HERMANUTZ, Williamsport, a daughter, recently.

Marriages

MISS HELEN NANCY SIMKINS, daughter of Dr. and Mrs. J. J. Simkins, Philadelphia, to Mr. Sidney L. Hyman, March 18.

MISS JANE PERRY KINNEY, daughter of Dr. and Mrs. Willard H. Kinney, Philadelphia, to Mr. Remson J. Cole, New Haven, Conn., April 12.

Engagements

MISS JULIA RALSTON YOUNG, Swarthmore, and Dr. Francis Hurren Murray, Chester.

DR. PATRICIA DRANT, Philadelphia, and Mr. William Warren Rhodes, Wilmington, Del.

MISS HELEN ADAMS BABBITT, daughter of Dr. and Mrs. James A. Babbitt, and Mr. Edward Lowmes Webster, all of Philadelphia.

Deaths

MRS. EMMA GLASS MAYER, wife of Dr. William H. Mayer, Pittsburgh; March 31.

JOHN C. STEVER, Bainbridge; Jefferson Medical College, 1876; aged 81; April 8.

MRS. CAROLYN A. KROGH, wife of Dr. D. M. F. Krogh, Philadelphia; March 26.

THOMAS H. SMITH, Burnham; Baltimore Medical College, 1897; aged 63; March 20.

MRS. MAGGIE HUHN BERKENSTOCK, wife of Dr. William F. Berkenstock, Philadelphia; March 23.

ELI SLIFER WALLS, Pittsburgh; University of Pennsylvania School of Medicine, 1908; aged 53; March 28.

WALTER GLENN GRAHAM, Pittsburgh; University of Pittsburgh School of Medicine, 1911; aged 50; March 19.

PAUL FREDERICK ECKSTEIN, Canonsburg; University of Pittsburgh School of Medicine, 1920; aged 39; April 4.

WILLIAM HORNER GARDNER, Pittsburgh; University of Pittsburgh School of Medicine, 1899; aged 73; March 23.

JAMES WINFIELD SAMPSEL, Penns Creek; Jefferson Medical College, 1878; aged 82; Feb. 28, cerebral hemorrhage.

ARNOLD PAIGE, Erie; University of Buffalo School of Medicine, 1927; aged 33; March 8, at the Jefferson Hospital, Philadelphia.

MRS. ELLA STONE FLICK, wife of Dr. Lawrence F. Flick, Philadelphia; aged 74; in March. Surviving are her husband, 3 daughters, and 4 sons, one of whom is Dr. John B. Flick, Cynwyd.

HENRY WILDERMAN, Philadelphia; Medico-Chirurgical College, Philadelphia, 1916; aged 42; Dec. 20, 1933, coronary thrombosis, at Berne, Switzerland, where he was doing graduate work.

WYLLYS K. INGERSOLL, Philadelphia; New York Homeopathic Medical College, 1879; practiced medicine for 55 years; on the staff of Hahnemann Hospital; aged 77; March 23. His widow and 2 sons survive.

CHARLES H. MASLAND, Philadelphia, father of Dr. H. C. Masland; aged 92; March 26. Mr. Masland was one of Philadelphia's five survivors of the 1700 cavalrymen who fought with Rush's Lancers at Antietam.

CHARLES ABRAHAM MAYOR, Philadelphia; Temple University School of Medicine, 1910; aged 55; March 23. He was a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his widow and a daughter.

ROBERT J. HILLIS, Juniata; Baltimore College of Physicians and Surgeons, 1886; member of his county and State medical societies and a Fellow of the A. M. A.; aged 72; Feb. 25, at the Bradenton General Hospital, Bradenton, Florida.

MRS. HATTIE FELDSTEIN, Philadelphia, widow of the late Dr. Adolph Feldstein, first chief resident physician and superintendent of the Jewish Hospital, Philadelphia. A son, Dr. Sidney L. Feldstein, Philadelphia, and 3 daughters survive.

MONROE DAVID REESE, Lebanon; University of Pennsylvania School of Medicine, 1921; aged 38; March 22. Dr. Reese was a member of his county and State medical societies; a Fellow of the A. M. A.; a member of the American Academy of Ophthalmology and Otolaryngology, and held a certificate of the American Board of Otolaryngology.

ALPHONSE M. SCHNORR, Philadelphia; University of Pennsylvania School of Medicine, 1908; aged 60; March 27, from a cerebral hemorrhage. Dr. Schnorr was struck by an automobile about 10 days previous to his death, the seriousness of his injury not being fully realized at the time. He was not a member of his county medical society. His widow and 3 children survive.

PETER P. KLOPP, Philadelphia; Jefferson Medical College, 1890; aged 67; March 24. Dr. Klopp was born in Berks County and upon graduation began practicing in Philadelphia. He was a graduate of the Philadelphia College of Pharmacy, 1888, and the law school of the University of Pennsylvania, 1899. He was a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his son, Dr. John W. Klopp, Philadelphia, and his sister.

THEODORE E. INGRAM, Marietta; Jefferson Medical College, 1885; aged 76; April 2, at the Wernersville Hospital. Dr. Ingram was born in Philadelphia and practiced medicine in Marietta for more than 30 years, having retired from practice several years ago. He was a director of the First National Bank of Marietta, and of the Home Building and Loan Association; a member of the Lancaster City and county medical societies; the State Medical Society, and a Fellow of the A. M. A. He is survived by his widow.

WILLIAM S. ERDMAN, Buckingham; Medico-Chirurgical College, Philadelphia, 1896; aged 64; April 7, at the Lankenau Hospital, Philadelphia. Dr. Erdman continued practice until about 2 weeks previous to his death. He was a former president of the Bucks County Medical Society, having served twice in this office; former president of the Bucks County Tuberculosis Society; a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his widow, a son, a daughter, and a brother, Dr. Wilson Erdman, Quakertown, Pa.

JOHN CHARLES HUMPHREYS, Philadelphia; Hahnemann Medical College, Philadelphia, 1908; Jefferson Medical College, 1910; aged 54; March 31. Dr. Humphreys was born in Philadelphia and received his early education at the Germantown Academy. For the past 8 years he was director of the Health Bureau of the Penn Mutual Life Insurance Company; from 1910 to 1926, was a medical missionary in China under the auspices of the American Baptist Foreign Missionary Society. He was a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his widow, a son, and a daughter.

JULIAN HILAND DEWEY, Philadelphia; University of Pennsylvania School of Medicine, 1891; aged 67; March 30, after a long illness. Dr. Dewey was graduated from the college department of the University of Pennsylvania, 1888; played on the football team and was a member of the college crew. He limited his practice to ophthalmology and conducted offices both in Philadelphia and Trenton, N. J. He was on the staff of St. Francis Hospital, Trenton. He was a member of his county and State medical societies and the Philadelphia College of Physicians; a Fellow of the A. M. A. and the American College of Surgeons.

A. JEROME HERMANN, Middleburg; Medico-Chirurgical College, Philadelphia, 1897; aged 63; March 10, uremia, at the Geisinger Memorial Hospital, Danville. Dr. Hermann was born Aug. 26, 1871, in Penn Township, Snyder County, Pa. He attended the Penn Township School and Bloomsburg State Normal School. Upon graduation he began practice in Middleburg. He

was elected county coroner in 1908, and continuously held that office until the time of his death. He was a member of the Northumberland County Medical Society until a year ago when he discontinued practice on account of ill health. He is survived by a son and 3 brothers, one of whom is Dr. Percival J. Hermann, of Selinsgrove, Pa.

EDWARD BEECHER FINCK, Philadelphia; University of Pennsylvania School of Medicine, 1903; aged 78; March 24. Dr. Finck was a native of Wellersburg, Pa., and a son of Dr. Anthony Romig Finck, who practiced medicine for a number of years in Philadelphia. He served his internship in the Samaritan Hospital, Philadelphia (now Temple University Hospital), and subsequently became attached to the dermatologic staff of Temple University Medical School, having resigned this position several years ago. He was a member of his county and State medical societies and a Fellow of the A. M. A. Also a member of the Philadelphia Dermatological Society and the Medical Club of Philadelphia. He is survived by his wife, a son, and a daughter.

SAMUEL FREEMAN HASSLER, Harrisburg; Jefferson Medical College, 1894; aged 65; March 21, heart disease. Dr. Hassler was born in Harrisburg, Sept. 28, 1868, the son of Edward O. and Mary Felty Hassler. He attended Lebanon Valley College and the Bloomsburg Normal School, and taught school 5 years. After his graduation from medical school, he was resident physician for 14 months in the Harrisburg Hospital, and began practicing medicine in 1908. In the last year of his term he ran for mayor, losing by a few votes, and in 1917 he was elected to the City Council and assigned to the Department of Public Safety. During his time in office the city established municipal ash collections. Dr. Hassler also led the movement for the contagious disease hospital established jointly by the city and county as an annex to the Harrisburg Hospital. He was county treasurer, and a member of the Harrisburg Hospital staff almost 40 years. He was a member of his county and State medical societies and a Fellow of the A. M. A. Surviving are his widow and a daughter.

Miscellaneous

Dr. GEORGE T. PRYOR continues an invalid at the home of friends in Sheffield.

Dr. MARSHALL B. MORGAN, Huntingdon, is convalescing in Florida for an extended period of time.

WILLIAM WEST, Huntingdon, has taken over the practice of the late William P. S. Henry at Everett, Bedford County.

Dr. ALDEN B. MACDONALD, Warren, is a patient at the Warren General Hospital, having submitted to an exploratory laparotomy.

Dr. JOHN M. BECK, Alexandria, is a candidate for the Republican nomination as Assemblyman from the Huntingdon district.

Dr. WALTER ORTHNER, Huntingdon, has been appointed to the active staff of the J. C. Blair Memorial Hospital as assistant in medicine.

Dr. WILLIAM G. TURNBULL, superintendent, Philadelphia General Hospital, was operated on March 30, for an unruptured gangrenous appendicitis.

AT THE MEETING of the Medico-Legal Society of Philadelphia, April 24, George W. Phillips, Esq., presented a paper on "Legal Postmortems."

THE CHILDREN'S HOSPITAL, Philadelphia, ultimately will receive most of the \$160,000 estate of Mrs. Mary V. Lewis Sayres, the income to be used for maintenance.

AT THE MEETING of the Section on Otolaryngology of the College of Physicians, Philadelphia, April 18, William V. Mullin, Cleveland, read a paper on "The Influence of Allergy on Rhinology."

FRANK E. LEIVY, member of the staff of Mt. Sinai Hospital, Philadelphia, will deliver the ninth of a series of public health talks, sponsored by the hospital, May 23, at 8:30 p.m., on "How to Reduce Safely."

AMONG THOSE PHYSICIANS recently honored with election to Fellowships in the American College of Physicians are: Sumner H. Gross, Jenkintown; Byron Hubbard Jackson, Scranton; and Harold Lazarus Tonkin, Williamsport.

THE TENTH SCIENTIFIC SESSION of the American Heart Association will be held June 12, from 9:30 a.m. to 5:30 p.m., at the Cleveland Hotel, Cleveland, Ohio. The program will be devoted to arteriosclerotic heart disease.

AT THE MEETING of the Northern Medical Association of Philadelphia, April 16, Dr. Albert S. Hyman, New York City, delivered an address on "New Methods of Electrocardiography: Their Application in General Medicine and Surgery."

THE ANNUAL meeting of the Pennsylvania Radiological Society will meet at Pocono Manor, Mount Pocono, Pa., May 18 and 19. Make reservations direct with Pocono Manor. For further information write Dr. A. L. Benson, chairman of the Program Committee, 122½ N. Front St., Philipsburg, Pa.

AT A SPECIAL MEETING of the Physiological Society of Philadelphia, April 3, Dr. C. Heymans, professor of pharmacology in the University of Ghent, delivered a lecture on "The Role of the Carotid Sinus in the Regulation of Blood Pressure and Heart Frequency."

ALFRED MONROE BAILEY (colored), a naturopath, was convicted in the Philadelphia courts, Feb. 16, for illegal practice of medicine. Bailey had signed death certificates of colored persons who died while attended by him. He was fined \$100 and costs of prosecution and placed upon probation.

H. O. ULRICH, optometrist, was convicted by Judge Reese in the Dauphin County (Pa.) courts, March 23, for the illegal practice of medicine. Ulrich paid the costs of prosecution, repaid the victim \$45, and is serving 30 days' sentence in the Dauphin County prison.

HERRMAN L. BLUMGART, associate professor of medicine, Harvard University Medical School, delivered the address at the annual meeting of the Medical Forum, Pittsburgh, March 24, on "Total Ablation of the Thyroid in Patients with Congestive Heart Failure and Angina Pectoris."

THE DR. I. P. STRITTMATTER AWARD of the Philadelphia County Medical Society was awarded for 1934 to Philip F. Williams, at the meeting of the Philadelphia County Medical Society, April 18. The award was bestowed in recognition of valiant services rendered by Dr. Williams as chairman of the Committee on Maternal Mortality of the Philadelphia County Medical Society.

THE FIFTH Monthly Post Graduate Assembly, under the auspices of the Montour County Medical Society, was held at the Geisinger Memorial Hospital, March 23, Reid Nebinger, chief of the eye, ear, nose, and throat department, in charge. The guest speakers for the day were George MacKenzie; Louis H. Clerf, professor of bronchoscopy, Jefferson Medical College; Willis F. Manges, professor of roentgenology, Jefferson Medical College, Philadelphia.

THE OBSTETRICAL SOCIETY of Philadelphia and the Boston Obstetrical Society were guests of the New York Obstetrical Society, April 10. Clinics were held in New York and Brooklyn hospitals. At the evening meeting, following the dinner at the Hotel Pennsylvania, Edward A. Schumann, Philadelphia, read a paper on the "Contribution of New York to American Obstetrics and Gynecology." The discussion was opened by Louis E. Phaunef, Boston.

MORE THAN 50 PHYSICIANS and surgeons of the Bradford County Medical Society met recently at the Guthrie Clinic, Sayre, for an all-day clinic on goiter, conducted by Robert S. Dinsmore, formerly associated with the Crile Clinic in Cleveland. During the morning session Donald Guthrie, surgeon, Packer Hospital, removed three goiters, while Dr. Dinsmore discussed the cases from a diagnostic point of view. In the afternoon Dr. Dinsmore conducted a dry clinic and discussed the surgical and medical management of goiter.

A RECEPTION OF THE MEDICAL CLUB of Philadelphia was held at the Bellevue-Stratford Hotel, April 20, which constituted Newspaper Night, with the following speakers: Mr. Don Rose (The Evening Ledger) "The Columnist Looks at the Doctor"; Mr. Eric Knight (The Public Ledger) "The Doctor in the Films"; and Mr. Charles Sykes (The Evening Ledger) "Doctors I Have Known." The three surviving original members were the guests of honor: T. Chalmers Fulton, George Goebel, I. P. Strittmatter.

AT THE FIFTIETH ANNUAL CONVENTION of the American Association of Anatomists held at Philadelphia, March 30, the following officers were elected: President, Professor W. H. Lewis, Carnegie Institute; first vice president, Professor E. V. Cowdry, Washington University of St. Louis; second vice president, Dr. Bradley M. Patton, Rockefeller Foundation; Dr. George W. Corner of the University of Rochester, New York, was reelected secretary-treasurer. The association will hold the 1935 meeting at St. Louis, Mo.

THE ANNUAL MEETING AND DINNER of the Allegheny County Medical Society was held April 3, in the ballroom of the Hotel Schenley, Pittsburgh. The dinner was a testimonial to Edward B. Heckel, in recognition of his services and leadership in the development of the organized medical profession as expressed by the county and State medical societies and the American Medical Association. Donald Guthrie, Sayre, president of The Medical Society of the State of Pennsylvania, was a guest. Gordon Jennings Laing, dean, The Division of Humanities, University of Chicago, delivered an address, "Are Doctors Human?"

THE LUZERNE COUNTY PHARMACEUTICAL ASSOCIATION sent to all physicians in the county 2 pamphlets, one on "Notes for the Physicians from the National Formulary," which contain a selected list of vehicles and 50 of the most popular preparations in the National Formulary. The other, "A Message from the United States Pharmacopœia," which constitutes a therapeutic index of the U. S. P. drugs and preparations. These pamphlets will serve as a guide to the physicians of Luzerne County engaged in emergency medical relief work to the extent that inexpensive and efficient official preparations will be prescribed, and not expensive proprietaries.

THE MERCY HOSPITAL, Wilkes-Barre, conducted a Postgraduate Conference, March 15, which consisted of operative clinics and clinical demonstrations and original papers. The operative clinics and clinical demonstrations were conducted by P. P. Mayock and staff, J. J. Korn, A. Datner, A. R. Feinberg, and F. E. Donnelly. Papers were read by F. M. Pugliese, F. P. Judge, J. A. Drapiewski, and A. L. Luchi. The following guest speakers read papers: President Donald Guthrie, of the State Medical Society; Charles C. Norris, Philadelphia; W. L. Estes, Jr., Bethlehem; and William D. Stroud, Philadelphia.

HARRY A. KAPLAN pleaded guilty on March 14, in the Philadelphia courts, to an indictment charging him with practicing medicine without a license, and was sentenced to 6 months in jail. Kaplan had previously served a jail sentence for one year for manslaughter. He is an unlicensed naturopath. The first death occurred after Kaplan punctured the brain, while treating a patient for a coryza, this resulting in suppurative meningitis and
(Continued on page xii.)

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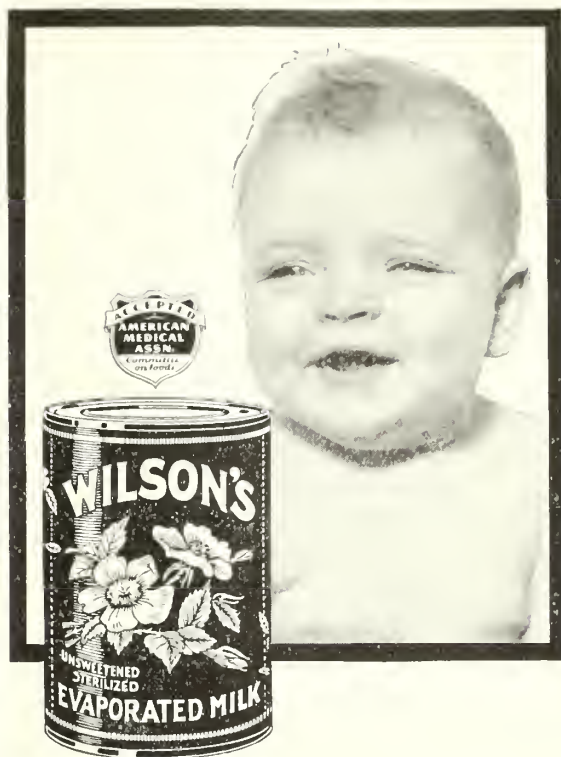
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NEWS ITEMS

(Continued from page 714.)

death. His second offense was that of administering a high colonic irrigation with a rupture of the sigmoid, death occurring 11 hours later. The history of the latter case appears in *J. A. M. A.*, Oct. 14, 1933.

AN UNUSUAL QUESTION of authority was recently solved in Philadelphia by an old English law. The rights and privileges of the coroner's office are more far-reaching than many are supposed to believe and is one of the oldest offices. Under the old English law, the coroner is the highest officer of the county. It recently became necessary in Philadelphia to serve on the sheriff a writ to appear in Common Pleas Court No. 5. The question arose, who would serve the writ. It appears that the sheriff was named codefendant with the United States Fidelity and Guarantee Company in a suit instituted by the Commonwealth for alleged improper service of a writ. In looking through the law books extending back to the old English law, it was determined that the coroner's office could serve a writ on a sheriff. Accordingly, the coroner's office of Philadelphia duly served the writ on the sheriff.

FOUR UNIVERSITIES WILL OFFER COURSES for the training of teachers and supervisors of sight-saving classes this summer. The courses will be given at: State Teachers College, Buffalo, N. Y.; University of Chicago, Chicago, Ill.; University of Cincinnati, Cincinnati, Ohio; and Teachers College, Columbia University, New York City.

Although more than 50,000 school children in the United States have such seriously defective vision as to require special teaching methods and special eye care, so many of them live in rural districts that all of them cannot be reached with sight-saving classes, even in consolidated or county schools. Hence, the summer courses are intended also as an aid to teachers in the regular grades, who will be able to apply generally their added knowledge regarding the conservation of vision for all children as well as the special educational methods employed for those children suffering from seriously defective vision.

Information concerning the university summer courses may be secured from the respective universities or from the National Society for the Prevention of Blindness, 50 West 50th St., New York City.

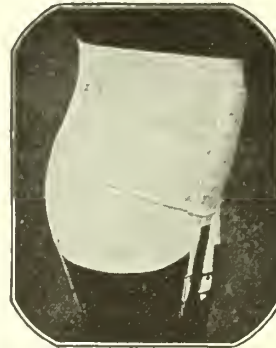
ESSAYS WILL BE RECEIVED in competition for the Samuel D. Gross prize of \$1500 until Jan. 1, 1935. This prize is awarded every 5 years to the writer of the best original essay not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice founded upon original investigations; the candidates for the prize to be American citizens.

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia, on or before Jan. 1, 1935.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if

*(Concluded on page xiv.)*TRADE MARK
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NEWS ITEMS

(Concluded from page xii.)

reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

THE AMERICAN MEDICAL GOLFING ASSOCIATION will hold its twentieth annual tournament at the Mayfield Country Club in Cleveland, on Monday, June 11.

Thirty-six holes of golf will be played in competition for the 50 trophies and prizes in the 8 events. The trophies include the Association Championship for 36 holes gross, the Association Handicap Championship for 36 holes net, the Choice Score Handicap Championship for 36 holes gross, the low gross Eighteen Hole Championship, the low net Eighteen Hole Handicap Championship, the Maturity Event limited to Fellows over 60 years of age, the Oldguard Championship limited to competition of past presidents, and the Kickers Handicap. Other events and prizes will be announced at the first tee.

Homer K. Nicoll, Chicago, is president and Charles Lukens, Toledo, and John W. Powers, Milwaukee, are vice presidents of the American Medical Golfing Association, which was organized in 1915 by Will Walter, Wendell Phillips and Gene Lewis, and now totals 1100 members representing every state in the Union. John Welsh Croskey, and Edward Martin, Philadelphia, are among the living past presidents. The Cleveland Committee is under the chairmanship of John B. Morgan, 1301 Medical Arts Building, Cleveland, Ohio.

The Mayfield Country Club of Cleveland is described by Chairman Morgan as "probably the finest course in the district, and certainly one of the most interesting. Many championships have been held on this course, and I am sure the visiting doctors will be delighted with it in every sense of the word. It has a most beautiful club house, and we can promise a merry 19 hole and a dinner fit for a champion."

All male Fellows of the American Medical Association are eligible and cordially invited to become members of the A. M. G. A. Write the executive secretary, Bill Burns, 4421 Woodward Avenue, Detroit, for an application blank. Participants in the A. M. G. A. tournament are required to furnish their home club handicap, signed by the secretary. No handicap over 25 is allowed, except in the Kickers'. No trophy is awarded a Fellow who is absent from the annual dinner.

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TUMORS OF THE SYMPATHETIC NERVOUS SYSTEM*

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Tumors of the sympathetic nervous system are protean in their clinical manifestations and differ considerably in their histologic appearance. Arising from the same stem cell, depending upon the differentiation, these tumors may be exceedingly malignant or benign. Between the two extremes are tumors which, although malignant histologically, pursue a relatively benign course. The tumors develop from neuroblasts (sympathogonia) which wander out from the neural crest to form the sympathetic nervous system. The tumors, depending upon the amount of differentiation, are called neuroblastomas, paragangliomas, and ganglioneuromas.

NEUROBLASTOMAS

In 1901, Pepper published a paper entitled "Congenital Sarcoma of the Liver," in which he said: "A careful review of the literature upon the subject of primary sarcoma of the suprarenal and of the same in the liver was intensely interesting, because I have found 5 cases of such striking similarity to the one that I have just reported that I have thought it important to abstract them quite carefully to show that we have here a special type of congenital malignant disease with its own peculiar symptoms and pathologic findings."

In 1907, Hutchinson, after studying 10 cases of so-called sarcoma of the suprarenal gland in children, associated with metastases to the skull, described the following clinical syndrome:

In the majority of cases the first thing noted was a swelling about the bones of the skull, which, in several of them, was ascribed to a fall or injury. Following or preceding this, proptosis of one or both eyes was observed. In two-thirds of the cases discoloration of the eyelids on one or both sides is reported, and in a few instances this was the first point to attract attention. Anemia is a striking feature in all the cases, the blood

changes being those of a profound secondary anemia. Leukocytosis has not been recorded in any case. An abdominal tumor in one or the other loin was felt in only 5 cases. The progress of the disease in every instance has been rapid, and the younger the patient the more rapid it is. Indications of increased cranial pressure, such as torpor, intense optic neuritis, and blindness may develop. The postmortem features are also very constant; in all there was found a sarcoma of the suprarenal, usually consisting of small round cells situated on the left side in 6 and on the right side in 4 of these cases. The most extensive metastases were found in the bones of the vault and base of the skull, producing swellings on the head and protrusion of the eyes observed during life. Metastases are also met with in the ribs, sternum, and vertebrae, but not apparently (except in Case I) in the long bones, though these may not always have been carefully examined.



FIG. 1.—This child presents the typical Hutchinson syndrome. The exophthalmos and enlargement of the cervical lymph nodes are especially marked on the left side.

In both types described, metastases may form in the bones and the liver before the primary growth is suspected or demonstrated. The differences in the 2 syndromes described have been explained in the following ways by Frew: In the Hutchinson syndrome the tumor was in the left adrenal and formed metastases by way of the

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

blood stream; in Pepper's syndrome the tumor developed in the right adrenal and metastasized to the liver by way of the lymphatics. Study of many cases has not confirmed the ideas formulated by Frew.



FIG. 2.—Hutchinson's syndrome in a boy age 3. Illness began with slight fever, pain in the extremities, and prominence of the eyes. The child was thought to have rheumatic fever. The wound is the result of an operation on the frontal sinus. The child died 2 months after admission to the hospital; 5 months after the appearance of the first clinical symptoms.

The clinical course in these cases is usually rapid and progressively downward. In the cases which Geschickter and I have recently studied, the average duration of symptoms before the patient was admitted to the hospital was 6 months.

One-half of the patients had had symptoms for one month or less. In 2 patients the tumor was present at birth. Death followed within a month when an operation was attempted. Within a relatively large number of cases occurring in children the clinical course is run within 2 months.

The clinical course is protean in character. Frew has described a case in which the symptoms were those of acute rheumatic fever. In 2 cases reported by Geschickter and myself the disease at the onset resembled acute rheumatic fever, the temperature being high, and many joints involved. In some instances a marked anemia with a low platelet count has been noted.

In 5 cases a laparotomy has been performed. Fever, a mass, and rigidity, and tenderness of the muscles over the mass have made the examining physician suspect appendicitis. In some

instances the differential diagnosis is made with so much difficulty that an exploratory incision seems advisable.

The changes in the bones, if involved, are quite typical. Multiple small areas of rarefaction predominate in the picture. The humerus and femur are the long bones most frequently affected. In the bones affected many small discrete areas of bone destruction are found, and



FIG. 3.—This child presented the Pepper syndrome. The tumor mass could be definitely outlined on palpation, but it could not be separated by palpation from the liver and spleen. The pyelogram showed that the kidney was displaced and rotated by the tumor mass. The patient died 6 days after an attempt at removal of the tumor.

occasionally a longitudinal zone of rarefaction. A periosteal reaction in which a delicate layer of bone is laid down parallel to the shaft of the long bones, and sclerosis of the marrow cavity are more typical of leukemia and lymphosarcoma. Such changes are rare in neuroblastoma.

These tumors, which may be solid or cystic, are composed of small cells with hyperchromatic nuclei and little cytoplasm. They are grouped together in a manner which suggests the clumping of staphylococci in culture medium. Rosettes were found in a little more than one-third the cases. A number of different terms have been given these cells (lymphocytoid cells, neuroblasts, neurocytes, sympathicoblasts and sympathogonia). Among the small cells are larger round cells with vesicular nuclei and carrot-shaped or pear-shaped cells resembling young spongioblasts. These elements are more or less constant and have their origin in the undifferentiated parent cells from which the sympathetic nervous system develops. Of the 40 neuroblastomas which have been studied by Geschickter and myself, 33 occurred in the medulla of the suprarenal gland, or in the sympathetic ganglions adjacent to it.

The prognosis is bad, for the clinical course is progressively downward and is rapid.



FIG. 4.—Roentgenogram of bones showing metastases in a girl age 5 years who had a neuroblastoma of the suprarenal gland. The child was in the hospital 3 months and died 2 months after her discharge. During the stay in the hospital rapid extension of the bone changes was noted and retrobulbar metastases on both sides developed. Diffusely mottled areas of bone destruction and new bone may be seen.

PARAGANGLIOMAS

Paragangliomas are the most common tumors of the sympathetic nervous system and present

many clinical variations. Tumors of the carotid body are most representative of this group of tumors. These tumors develop most frequently

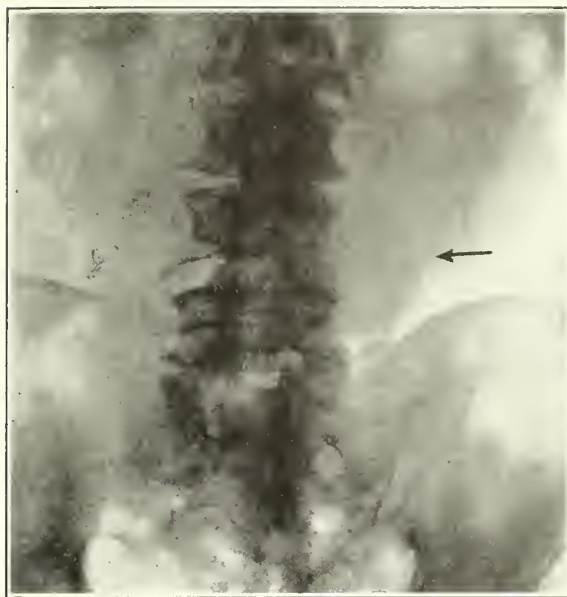


FIG. 5.—Roentgenogram of the spine in case of a neuroblastoma occurring in a white man age 45. The transverse process of the fourth lumbar vertebra has been eroded by a tumor which invades the body of the vertebra.

in the carotid body, the medulla of the suprarenal gland, in the submucosa of the small intestine and stomach, and in the ganglions of the sympathetic nerves. They are usually solitary and benign, but may be multiple and malignant. The histologic picture may be so bizarre and variable that it may be difficult to distinguish some of the malignant paragangliomas from very malignant carcinomas and sarcomas containing numerous giant cells.

The carotid body tumor has a rather characteristic appearance and location, occurring as it usually does at the bifurcation of the common carotid artery. These tumors usually grow slowly, are oval and have lateral, but not longitudinal, mobility. An interesting feature of such tumors is that they may have an expansile pulsation—a thrill and bruit not unlike an aneurism of the carotid artery. These tumors are not confined to the carotid body, for tumors of like histology have been found in the parotid and thyroid glands.

Recently a colored patient came to the hospital. He gave the following history: He was age 45. About 5 years before admission to the hospital he noticed a small lump near the angle of the jaw. This had grown steadily from the size of a walnut to that of a man's fist. No pain or tenderness had been noted. When the patient was examined a large oval mass about 10 cm. in length was found. This extended from the angle of the

jaw on the right side to the clavicle. The mass was lobulated and firm. The skin was not adherent and could be moved easily over the mass.

A decided thrill could be felt on palpation, and a loud bruit on auscultation. An expansile pulsation like that of an aneurism could be made out. The growth had been progressive for 5 years. There were, however, no changes in the skin, which might reasonably have been expected, if the lesion under consideration had been an aneurism.

Paragangliomas of the suprarenal glands form an interesting group of tumors because of the diverse and, at times, bizarre symptoms which may be associated with them. They usually occur in adults. Hypertension, hypotension, and vasomotor instability are not infrequently noted. One of the patients with a paraganglioma of the suprarenal presented Addison's syndrome—vasomotor instability and fainting attacks.

Urinary symptoms may be caused by these tumors, and deformity of the renal pelvis may be shown by the pyelogram. If the intestinal wall is secondarily involved intestinal symptoms may be noted. Glycosuria may result from hypersuprarenalism caused by excessive secretion by the tumor. In some instances in which the suprarenal cortex has been destroyed by the tumor the symptoms of Addison's disease and melanoderma have been noted.



FIG. 6.—Malignant paraganglioma of the suprarenal gland occurring in a woman age 34, which metastasized to the retroperitoneal lymph nodes. In the photograph the tumor is in the suprarenal gland and the upper pole of the kidney, the cortex of which is invaded. With the exception of this portion the growth is encapsulated.

Paragangliomas of the adrenal rarely reach a large size. The larger tumors are more often cystic than the small ones and, if cystic, the contents are usually hemorrhagic. The smaller tumors are, as a rule, surrounded by a rim of compressed adrenal cortex.

Histologically an alveolar arrangement of the cells is found, but the cell grouping is more regular than that of tumors of the carotid body. In paragangliomas of the adrenal there is a tend-

ency to syncytial formation. In the malignant forms giant, atypical ganglion and large spindle cells may be found. Paragangliomas may present a variety of giant cells.

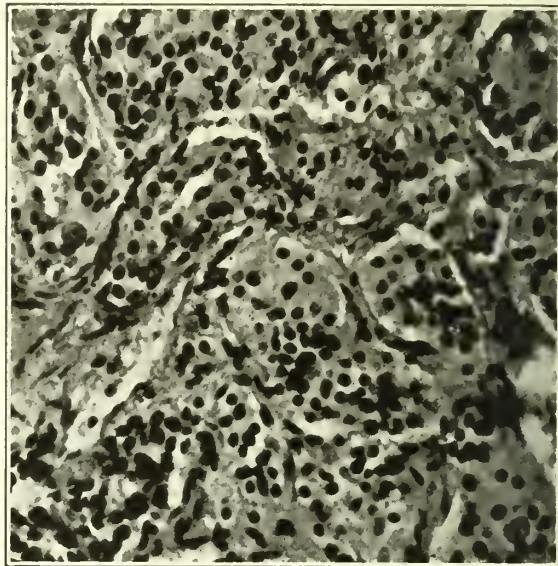


FIG. 7.—Photomicrograph of a tumor of the carotid body occurring in a man age 52. He had a pulsating tumor on the left side of the neck for 5 years. The alveolar structure of the tumor is well demonstrated in the picture. The predominating cell, the character of the stroma, and the small groups of neuroblasts indicate the nature of the tumor.

The paragangliomas of the intestinal tract form an interesting group. More than 300 paragangliomas of the appendix have been reported. More than 100 have been found in the small intestine, and cases have been reported in which these tumors have occurred in the stomach, large bowel, and rectum. Raiford recently reported 29 cases from the Surgical Pathological Laboratory of the Johns Hopkins Hospital. The number recorded is now 35. Twenty-two occurred in the appendix, 10 in the small intestine, 2 in the large bowel, and one in the stomach.

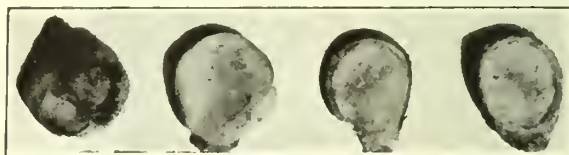


FIG. 8.—Cross section of a typical argentaffin tumor of the appendix (the so-called carcinoid). The lumen of the appendix is closed by the growth, but the wall of the appendix does not seem to be invaded (paraganglioma of the appendix).

They usually are found in adults. The symptoms of appendiceal paragangliomas (carcinoids) are suggestive of appendicitis. An operation is performed for appendicitis and a paraganglioma is found. Diarrhea, with melena, is the symptom frequently associated with paraganglioma of

the small intestine. About 20 per cent undergo malignant changes. Eight of the cases studied by Geschickter and myself were malignant. Those of the small intestine become malignant more frequently than do those of the appendix. If metastases occur, they are found in the lymph nodes of the mesentery, about the aorta, and in the liver. If malignant changes occur, obstruction may develop.



FIG. 9.—Gross specimen of the paraganglioma of the cecum and ascending colon. The lymph nodes draining this section of the bowel were involved. Some along the superior mesenteric artery could not be removed. This patient has remained well almost 3 years, even though these glands were not removed.

I will cite the following case to indicate the history and course of a paraganglioma of the cecum.

The patient, a white woman, age 46, was admitted to the Johns Hopkins Hospital, Oct. 20, 1930. She complained of attacks of abdominal pain, distention, and diarrhea. For several years she had been subject to attacks of dyspepsia which were variable in duration, intensity, and periodicity. The present attack differed from the preceding only in slightly greater severity. The only relevant detail in the past history was an attack

of pulmonary tuberculosis 12 years before, from which she had apparently completely recovered.

The patient was a well nourished, white woman, in no acute discomfort. A small mass could be palpated in the right lower quadrant of the abdomen. This was about the size of a lemon, freely movable and not tender. Roentgenograms made following a barium sulphate meal showed a dilated terminal ileum, but no evidence of a constriction. Following a barium enema, however, roentgenograms revealed a large, constricting filling defect in the cecum. A diagnosis of a tumor of the cecum was made, but the possibility of an inflammatory mass considered. An exploratory laparotomy was advised.

At operation, Nov. 6, 1930, a hard and freely movable mass could be felt in the cecum when the abdomen was opened. Some of the regional mesenteric lymph nodes were enlarged and hard, but it was thought possible to do a resection. The terminal ileum, cecum, and ascending colon were resected with some of the enlarged nodes. Some at the point at which the superior mesenteric enters the mesentery could not be removed.

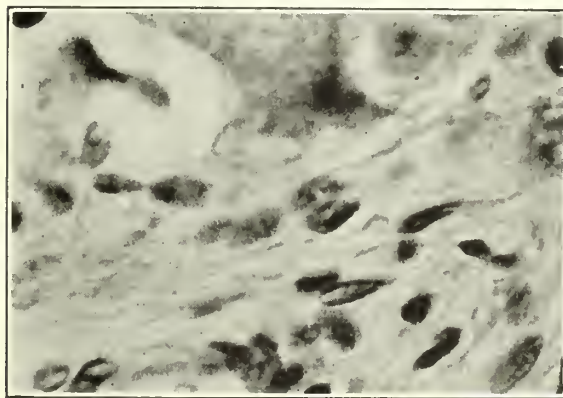


FIG. 11.—Section of a ganglioneuroma showing the large ganglion cells which histologically are characteristic of this growth.

The suture line perforated and a fecal fistula developed on the fifteenth day following operation. The fistula closed 3 months later, and the patient is now well, with no signs of recurrence.

The tumor was composed of densely packed cuboidal cells arranged in strands and compact groups. These were fairly uniform in size and possessed a moderate amount of granular cytoplasm. The granules stained dark brown or black with the silver impregnation technique, identifying the tumor as one of the argentaffin type. The stroma was quite dense and surrounded by nests of cells, leaving them as discrete islands of tumor tissue.

GANGLIONEUROMA

The term, "neuroma gangliocellulare," was first suggested by Virchow. The first tumor of this kind was described by Loretz in 1870. Tumors of this kind have been described in both the sympathetic and somatic nervous systems. Multiple ganglioneuromas have been observed in von Recklinghausen's disease. In a malignant ganglioneuroma large ganglion cells and smaller embryonic neuroblasts, from which the ganglion cells probably developed, have been found.

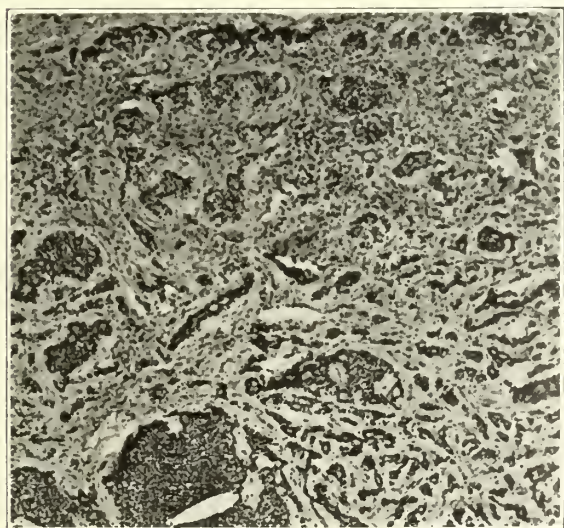


FIG. 10.—Histologic preparation of specimen shown in Fig. 9. The patient, a white woman, age 46, had abdominal symptoms of 2 weeks' duration. In the photomicrograph may be seen islands of cells which are typical of those composing paragangliomas. Among these islands and toward the lower portion of the picture small, deeply staining cells in a rosette arrangement may be seen. The cycle of cell growth is from small neuroblasts to the large masses of cells of a chromaffin type.

The ganglioneuromas are, as a rule, benign and solitary, but they may occur as multiple tumors and be malignant. They may occur anywhere in the central nervous system or peripheral nerves as well as in the sympathetic system. Three of the 8 cases studied by Geschickter and myself were malignant—an unusually high number.



FIG. 12.—Benign ganglioneuroma which arose apparently from the lower sympathetic cervical chain. Such tumors occurring in the chest or abdomen are usually retropleural or retroperitoneal in position. This case terminated fatally. These form the so-called giant tumors of the mediastinum.

The clinical course is usually slow, marked by progressive enlargement and eventually by pressure symptoms. These tumors occur clinically as the giant tumors of the mediastinum and as the large tumors of the retroperitoneal space.

I shall give the history of a ganglioneuroma which developed upon a peripheral nerve.

A Negress, aged 18, had a painful, aching sensation in the calf of the right leg for 3 months. When the patient was recumbent the pain was relieved. Preceding this by 2 years was an ailment which the patient described as neuritis in both legs, and photophobia. The exact nature of this illness could not be determined. She attributed the pain in the right leg, complained of on admission, to a fall the year before. A definite lesion in the region of the right calf was discovered a month before.

On the posterior surface of the right thigh about 4 cm. above the popliteal space was a firm, tender mass which involved the soft tissues. It measured 20 by 20 by 8 cm. Its lateral and upper margins merged with and infiltrated surrounding structures. Below the popliteal space in the right calf a hard, cordlike swelling, 2 inches in length, which was extremely tender, could be palpated.

The tumor was explored on Oct. 6, 1926. It was vascular and contained mucoid tissue among vascular areas. On Oct. 15, the mass was excised. The patient was admitted to another hospital in November, 1930, and an operation was performed for a recurrent tumor in the region of the right hip. The patient died on Nov. 12 shortly after the second operation. Permission for a necropsy could not be obtained.

The gross specimen measured 12 by 10 by 4 cm. It seemed encapsulated. The surface was white. The cut surface seemed fibrous, but scattered throughout were hemorrhagic and yellow areas.

The histologic picture varied considerably. The greater portion of the tumor had a hyalinized, fibrous appearance, but there were many vascular areas. In the hyalinized areas were accumulations of small spindle cells, forming a reticulum, and large spindle cells such as are found in sarcomas arising from nerve sheaths. At the center of many such masses were cellular, fibrous areas, in which were embedded giant cells and an occasional ganglion cell. The tumor appeared to be a benign ganglioneuroma and a sarcoma of the nerve sheath.

The histories cited indicate how protean the clinical manifestations of tumors arising from the stem cell (sympathogonia) may be and how bizarre and variable the histologic picture may be, depending upon the character and degree of cellular differentiation.

Johns Hopkins Hospital.

SOME CONDITIONS CAUSING CYANOSIS IN THE NEWBORN INFANT*†

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To understand cyanosis in the newborn infant and to be able to institute appropriate measures that will overcome it, some knowledge must be had, first, of the mechanism of respiration, both

that which initiates respiration and that by which respiration is continued or reestablished if it fails after initial efforts; and, second, a knowledge of the conditions that interfere with these mechanisms.

Cyanosis is defined by Lundsgaard and van Slyke¹ as a "blue or bluish color of the skin, of the mucous membranes, and of other organs . . ." The threshold for the appearance of

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† From the United States Children's Bureau (Studies of Neonatal Morbidity and Mortality), the Department of Pediatrics, Yale University School of Medicine, and the Pediatric Service of the New Haven Hospital.

cyanosis as determined by these authors is an oxygen unsaturation of the capillary blood above about 6.5 volumes per cent.

Cyanosis occurs under various conditions in newborn infants. In some of these the mechanism is more readily understood than in others as in congenital cardiac abnormalities, pneumonia, and intracranial hemorrhage. In the first of these abnormal blood flow; in the second, inadequate pulmonary exchange; and in the third, interference with the action of the respiratory center are responsible for inadequate oxygenation of the blood. In other conditions which involve those profound physiologic and chemical changes which take place at birth the mechanism is much less well understood. The cyanosis which chemical studies of the blood have shown to be present at birth and which persists and deepens if respirations do not immediately take place is most important to consider since it involves the whole problem of the mechanism which initiates respiration. Closely allied to this is the cyanosis accompanying atelectasis. True "congenital atelectasis" or failure of the lung to expand is probably always secondary to some factor interfering with the function of the respiratory center. In this connection the rôle played by morphine administered to the mother before delivery will be discussed in some detail.

In a search through the literature for information derived from anatomic, physiologic, and chemical studies relatively little has been found that is of assistance in understanding the mechanism of the initiation of respiration. Anatomic studies of lungs and central nervous system which point to the stage of development at which initiation of respiration might be considered possible are scarce. Some years ago, Luciani² pointed out that "at the seventh month the fetus is perfectly vitalized so that its respiratory apparatus is at that time fully developed and ready to function." In their textbook on *Embryology*, Keibel and Mall³ state that the formation of air cells in the lungs "begins in the sixth month but is not completed until the last month of pregnancy." Scammon⁴ points out that "the number of alveoli increase rapidly from the sixth month." Farber and Wilson⁵ have demonstrated areas of "incompletely formed pulmonary tissue" in infants born in the fifth or sixth month of fetal life, the presence of which may make continued life impossible because of the lack of "sufficient respiratory epithelium."

Even though the lung structure is fully developed, its function may be impaired and respiration prevented by the presence of fluid drawn down into the lungs by intra-uterine respiratory efforts which are the result of intra-uterine

asphyxia, or which according to Ahlfeld occur normally in the latter part of pregnancy. It has been shown, however, by Addison and How that in dogs during prenatal life the future respiratory passages are, as a rule, filled with fluid and that with the first extra-uterine inspirations this fluid is drawn into the lungs apparently without interfering with the onset of respiration. That the presence of some fluid in the lungs after birth is innocuous was demonstrated by Perry in experiments on young guinea pigs. It is probable, however, that under certain abnormal conditions, fluid may be aspirated in sufficiently large amounts to interfere with or embarrass respiration. Farber and Sweet demonstrated amniotic sac contents in the lungs of 88 per cent of 124 infants who died shortly after birth and pointed out the importance of such aspiration as a cause of respiratory embarrassment in the newborn.

From anatomic studies, two conclusions can be drawn: First, that one would not expect efforts at resuscitation to be of avail before a certain degree of maturity of lung structure has been reached; and, second, that if intra-uterine asphyxia has caused respiratory efforts the lungs may be filled with fluid which, if it exists in any great amount, may seriously interfere with resuscitation.

In considering what is known today about the physiologic and chemical aspects of the initiation and satisfactory establishment of respiration, the statement is usually made that the fetus exists in utero in a state of apnea or "suspended respiration." The explanation which usually has been offered for termination of this state of apnea has been that of increased vascosity of the fetal blood caused by the gradual shutting off of placental blood supply during labor. This mechanism increases the carbon dioxide content of the blood of the fetus which combined with tactile and thermal stimuli after birth initiates respiration.

Gesell⁶ in his report on this subject for the last White House Conference gave the following summary:

If the fetal respiratory mechanism is sufficiently developed anatomically to be susceptible to activation after the seventh month of uterine life the absence of respiratory movements must be explained along the lines of magnitude of chemical or nervous stimulation. Granting the significance of acidity of the respiratory center as one of the controlling factors of pulmonary ventilation it is clear that the rate of metabolism of the respiratory center, the rate of supply of oxygen, and the rate of removal of acid all significantly determine the state of acidity of the respiratory center. In other words they determine the degree of stimulation. The high rate of fetal metabolism and the relatively high degree of vascosity of the blood supplying the brain (low oxygen and high carbon dioxide content as compared

with the blood of the mother whose respiratory center is active) offer no clue to the explanation of intra-uterine apnea. Even accepting the view that the blood flowing to the fetal brain is more arterial than that flowing to other parts . . . it is still more venous than the maternal arterial blood. Possibly the volume flow of blood to the brain is excessively high during intra-uterine life, so much so that it is higher than is necessary for the rapid rate of growth of the brain. This would offer a theoretical explanation of the apnea. The facts on this point, however, are missing.

Henderson⁷ maintains that "failure of the newborn to breathe or a condition of insufficient natural respiration should not be treated by the old-fashioned method of cutaneous 'stimulation.' Such methods are essentially unphysiologic and harmful." On the basis of extensive studies of all types of asphyxia, Henderson states that "Resuscitation of the newborn should be based on the modern conception of the regulation of respiration by the action of the blood gases on the center. Oxygen is not a stimulant but a food stuff. Deficiency of oxygen, beyond a slight stimulating effect, depresses the nerve centers. In the absence of oxygen the tissues of the body cannot produce carbon dioxide. It is the carbon dioxide carried by the blood from the tissues to the brain that is the physiologic stimulant to respiration. When the center is depressed it requires more than the normal amount of this stimulant to induce activity."

Regardless of theoretical conceptions the fact remains that in the great majority of cases this "apneic" state of the fetus is terminated at birth spontaneously. In some cases, however, spontaneous respiration does not take place. Explanation of what brings about spontaneous initiation of respiration would in all probability provide the information necessary artificially to induce respiration in many cases in which it is not spontaneous. Extraordinarily little experimental work has been done in an attempt to throw light on this subject.

Gesell,⁶ in the same report, quotes as "virtually the only recent animal experiments on factors influencing the fetal respiratory center" those of Huggett who in 1926 reported experiments on goats delivered under warm saline solution by cesarean section with the placenta intact. In these experiments temporary clamping of the umbilical cord initiated respiratory movements in the fetuses, thus proving that the stimuli were of a purely chemical nature.

In the same year, Huggett also studied fetal blood gas tensions and gas transfusion through the placenta of urethanized goats. From his experiments he concluded that gases diffuse across the placenta and are not secreted by placental activity.

Corey, several years later, performed similar experiments on albino rats. Asphyxia produced by ligation of the umbilical cord produced extra-uterine respiratory responses, provided the uterine wall and amniotic sac were opened; but, if the fetuses were delivered into saline solution with the circulation intact and similar procedures carried out, no respiratory movements occurred. Corey, therefore, concluded that the initial respiration is normally brought about by an increased carbon dioxide tension in the blood, aided by the stimulating effect of the drying of the skin.

In addition to these studies a number of investigators have approached the subject from the standpoint of the chemistry of the blood. Trusler, Guedel, and George, for instance, produced asphyxia in dogs by means of morphine and anesthetics, resuscitated them by the administration of oxygen, and studied the effect of varying concentrations of carbon dioxide on the respirations and on the carbon dioxide content of the blood plasma. They concluded that carbon dioxide with oxygen is a powerful physiologic stimulant provided depression of the respiratory center has not gone beyond the "limit of viability," and, further, that the "van Slyke determination of carbon dioxide taken by itself bears no direct relationship to the activity of the respiratory center." Determination made, also, of the carbon dioxide content of blood taken from the umbilical vein immediately after delivery of 15 normal or slightly asphyxiated infants resulted in similar blood findings. They concluded that, although the accumulation of carbon dioxide in the blood of the newborn seems to constitute the normal mechanism of respiratory stimulation, there is no evidence that a marked delay in respiratory effort is due to insufficient carbon dioxide in the blood as determined by the van Slyke test and, furthermore that in any type of asphyxia the anoxemia at first stimulates and then depresses the respiratory center and that oxygen alone will relieve the depression caused by anoxemia.

Kane and Kreiselman⁸ reported that they found pure oxygen "instilled" into the lungs sufficient to initiate respirations in newborn infants. They, therefore, studied the carbon dioxide content of the cord blood in 47 specimens after the cord was cut (7 asphyxiated, 26 gasping, and 14 crying infants) and concluded that "the carbon dioxide content in the newborn is consistently high (average in 7 asphyxiated infants, 54.6 volumes per cent); that the proportion of carbon dioxide increases with the degree of asphyxia; and, therefore, that the addition of carbon dioxide to oxygen as a resuscitating agent is contraindicated."

Haselhorst and Stromberger studied the oxygen and carbon dioxide content of the blood of the fetus in utero, and at the time of birth in normal infants. They found that the oxygen content of the fetal arterial blood was low (an average of 0.84 volume per cent in 5 cases) before the onset of labor; that it varied considerably during labor, but that immediately after birth, before the onset of respiration, it increased (average of 3.4 volumes per cent in 23 cases). The total oxygen capacity of the blood was found to be high (21.92 volumes per cent, average in 30 cases). In asphyxiated infants, however, they found the oxygen content of the arterial blood low (average 0.59 volume per cent in 3 cases).

Eastman made important additions to the knowledge of the fetal blood changes at birth. He determined not only the oxygen and carbon dioxide content of the blood but also the oxygen unsaturation and the carbon dioxide tension (partial pressure of carbon dioxide). The free carbonic acid is the factor influencing the respiratory center as has been shown by Haldane and his coworkers. Eastman found the oxygen content of the arterial blood of the fetus in utero to be 6.3 volumes per cent in 1 case; lower immediately after birth before respiration had taken place (average in 23 cases, 3.3 volumes per cent). In asphyxiated infants the oxygen content fell to very low levels (in 3 cases 0 to 0.2 volume per cent). Eastman found that in asphyxiated infants the carbon dioxide content of the blood was lower than in that of normal infants at birth or in utero. These findings are the reverse of those reported by Kane and Kreiselman. This may be explicable on the basis of the degree of asphyxia, as Eastman believes that in severe asphyxia the carbon dioxide content of the blood is lowered by the high lactic acid content. Eastman⁹ has arrived at the following conclusions which are, namely: "The principal characteristics of fetal blood in its relation to oxygen are the high capacity, the low arterial content, the very low venous content, and, as a result of these three factors, an extremely high capillary unsaturation. . . . The very high unsaturation of fetal blood in respect to oxygen indicates that the full term fetus *in utero* exists normally in a state of cyanosis. . . . The elevated carbon dioxide tension of the mixed fetal blood supplying the brain of the fetus is difficult to reconcile with the apneic state of the fetus *in utero* and at present necessitates the assumption that the sensitivity of the fetal respiratory center in respect to carbon dioxide at least is definitely depressed. . . . The serum pH of asphyxiated infants is reduced to the lower limits

compatible with life. . . . The evidence indicates that the use of carbon dioxide as a resuscitating agent in asphyxia neonatorum is not only superfluous but may even be harmful in that it tends to aggravate an already existing acidosis. . . . The conclusion is reached that the chief therapeutic indication . . . is for oxygen (or air) . . ."

These investigations have been cited in some detail because they apparently constitute all the information available on the mechanism of initiation of respiration in the newborn infant and form what basis there is for rationalization of methods of treatment. They do not solve the problem of the mechanism of initiation of respiration but indicate that some progress has been made in this direction. In spite of these chemical studies, we are still not clear as to the method to use to initiate respiration and still in some confusion as to the best stimulus to use after the respiratory movements have begun.

Let us now turn to the consideration of methods which have been and still are commonly used to initiate respiration. The literature contains no lack of suggestions, some 20 or more different methods being set forth. The textbooks outline combinations and modifications of these methods. After reviewing the various methods we are in a quandary as to which to use and how they may be most successfully applied. Shall we hold the infant up by its feet and spank it or shall we lay it out flat and leave it strictly alone? Shall we wipe out its pharynx with gauze on the finger, suck out mucus through a catheter, or insert a tracheal tube or bronchoscope? Shall we give tubs and, if so, hot or cold, or both? Shall we use artificial respiration? Of what type and for how long? Shall we administer carbon dioxide and oxygen, or oxygen alone? Shall we use positive or negative pressure to inflate the lung? Shall we inject drugs to stimulate the respiratory mechanism?

In the literature one can find enthusiastic advocates of all these methods and several more. We shall not attempt to discuss these methods in detail but merely point out that the information is not available to evaluate properly most if not all of them. As attention has been focused on the importance of chemical stimuli to respiration, mechanical methods have become less popular. In a recent survey of methods of resuscitation used in 83 hospitals scattered throughout the United States, carbon dioxide and oxygen were found to be available and used as one method of resuscitation in 76. Henderson⁷ advocated this method of treatment, stating:

One of the most important and now most widely applied uses of carbon dioxide is in the resuscitation of

asphyxiated newborn babies. Resuscitation of these by means of carbon dioxide diluted in oxygen may fairly be described as a close imitation of nature's own method. It is oxygen that keeps what is called the respiratory center alive and capable of activity. It is the carbon dioxide of the blood that stimulates the center to activity. These are the main facts of respiration in the adult, and they are equally true of the newborn baby.

Henderson maintains the contention that carbon dioxide tends to aggravate an already existing acidosis "is not supported by any clinical test." He adds that he has "not investigated the blood changes in asphyxia neonatorum, and no one has investigated the return of normality in the blood of these cases under the inhalational treatment."

The older methods of administering carbon dioxide and oxygen mixtures under pressure have been almost universally abandoned.

Henderson⁷ cautions against overdoing inflation "either in volume or pressure." The lungs must be inflated "a few times slowly and gently." If an anesthetic inhalator is used, the lungs may be expanded by gently compressing the rubber bag which has been filled with the gas mixture.

The most recently developed method of inducing respiration is by use of the Drinker respirator, the underlying principle of which is the production of lung expansion by alternating negative with atmospheric pressure. Murphy¹⁰ has published a number of reports on the use of this type of respirator in asphyxiation of the newborn. In his latest report he makes the statement that, in order to initiate respiration it may be necessary to use positive pressure (10 to 15 mm. of mercury) rather than atmospheric pressure alternating with negative pressure. The fate of 66 infants "who failed to breathe promptly and were given prolonged artificial respiration" is stated. Fifteen of the 66 infants never breathed; 21 breathed before or during treatment but died later; 30, or 45 per cent, of the infants were discharged alive. Pathologic studies on 24 of the 36 infants who died showed that cerebral hemorrhage was the chief cause of death. Unfortunately we can not tell how the results of this method of initiation of respiration compares with others because we have no figures for comparison. Even the usual proportion of asphyxiated infants is not well known. Murphy states that the 66 cases of asphyxia already referred to constituted 3.6 per cent of all live births. In a study of neonatal mortality and morbidity recently made in New Haven, data regarding the initiation of respiration were available for 634 infants. There were 50 infants whose respirations were delayed and 42 who never breathed, or an incidence of 15 per cent with delayed or absent respirations. More data

of this sort are needed to form a basis for conclusions regarding the success of different methods of resuscitation and further studies of large groups of asphyxiated infants, such as those reported by Murphy, must be made in which uniform methods of inducing respiration are used and pathologic examinations carried out when failure to initiate respiration has occurred, before we will be able to judge which method is the best.

One thing that is certain is the need for more experimental work and for the accumulation of more clinical data. In spite of what has been done in the past we are still in the dark as to the best method of initiating respiration. It is obvious that the infant must be made to inspire before gas can reach the respiratory tract. Experimental work seems to justify the conception that oxygen may be required to restore the sensitivity of a respiratory center depressed by exposure to low oxygen tensions in utero and that after such restoration of the center has taken place high concentration of carbon dioxide is not necessary to stimulate respiration under ordinary circumstances. In the presence of cyanosis, if the activity of the center has been restored, carbon dioxide and oxygen in as low proportion as 5 per cent carbon dioxide to 95 per cent oxygen will increase the depth of respirations. The problem of initiation of respiration, however, is a different one from the treatment of cyanosis after respiration has been initiated.

What conditions cause cyanosis in this latter period? There are a number of causes which are well known to you and of such a nature that the diagnosis is reasonably clear. If an obvious congenital anomaly is present, such as a cardiac or diaphragmatic defect, cyanosis may persist regardless of treatment. Intracranial hemorrhage caused by birth trauma, often not easy to diagnose, will also cause cyanosis, as will pulmonary and general blood stream infections. Appropriate treatment for the most obvious symptom in all these conditions, namely cyanosis, will sometimes tide the infant over so that it survives and is able to compensate remarkably even in the presence of severe defects.

There is not time to dwell on the rare conditions that cause cyanosis and the methods of diagnosis. Let us consider rather one of the more important causes of cyanosis in newborn infants which is often amenable to treatment, namely, so-called congenital atelectasis. This type of atelectasis is the condition of unexpanded lung found normally in fetal life, in contradistinction to lung which has expanded and then collapsed. Atelectasis is often recorded as a cause of stillbirth. It can not be a cause of stillbirth because

the diagnosis of stillbirth should never be made unless complete atelectasis is present. If the fetus respire it is live born. The idea was held until rather recently that with the first inspirations inflation of the lungs was completed. Wasson was the first observer to call attention, through his roentgenographic studies, to the fact that expansion of the lungs of infants is gradual and often not complete for a week or more. Keith is said to conceive of the expansion as taking place like the opening of a lady's fan. That a certain degree of atelectasis may be present in the absence of cyanosis may perhaps be explained by a relatively low oxygen requirement of the infant in this period. It is often possible to demonstrate roentgenographically hypoventilation of the lungs in the absence of cyanosis. As the activity of the infant increases, the oxygen requirements naturally increase and the same or even a lesser degree of atelectasis, which in the first few hours was physiologic, becomes pathologic and is followed by the appearance of cyanosis. When cyanosis is apparent, insufficiently aerated portions of the lung can usually be demonstrated by roentgenograms. After appropriate treatment has been instituted, these same areas of unexpanded lung can be shown to have disappeared.

How much of a problem is atelectasis in dealing with the newborn infant? Henderson¹¹ contends that "incomplete dilatation of the lung is a common condition predisposing to pneumonia and causing nearly as large a mortality as stillbirth itself." He bases this statement on Cruickshank's report of 197 cases of "pneumonia" among 800 neonatal deaths. Cruickshank, however, contends that in only 49 of these 197 cases was the pneumonia of the atelectatic type. Study of a group of 939 live born infants has made us feel that atelectasis is far less common or less often the basis for pneumonia than Henderson and Cruickshank maintain. In our series of infants a clinical diagnosis of atelectasis was made in only 18 infants, all but one of whom survived. In this case, pneumonia was thought to be the cause of death but no postmortem examination was made. Atelectasis unsuspected clinically was considered to be the cause of death in 2 of 17 infants on whom postmortem examinations were made in the neonatal period.

Pathologic reports on the incidence of atelectasis and its rôle as a cause of death in the newborn are difficult to evaluate. Hunt, for instance, in a pathologic study of 118 infants who had cyanosis, reports that although atelectasis of some degree was present in 39 or 33 per cent, it was of a severe degree in only 4 cases. On this basis he records atelectasis as not important in the causes of cyanosis. He apparently assumes

that it is possible to determine from the area of lung involved how important atelectasis is in the production of cyanosis. Clinical and roentgenographic studies on cyanotic infants would not seem to bear out such a contention. As already pointed out, an infant in the first few hours of life may have extensive unexpanded areas in the lungs and no symptoms. On the other hand, an infant age 3 or 4 days may have relatively smaller areas unexpanded and show definite cyanosis. In this connection we should like to know how frequently atelectasis was found by Hunt in the 482 infants who gave no history of cyanosis.

Study of the normal anatomy of the lungs of young infants has been strangely neglected and, therefore, wrong interpretations have been made. Recent studies have done much to clarify the subject. Farber and Wilson have shown that so-called hyaline membrane is not an evidence of pneumonia but of inspiration of fluid which, no doubt, sometimes is a cause of respiratory embarrassment. As stated, Farber and Sweet have demonstrated that amniotic sac contents in the lungs of infants are evidence of intra-uterine or intrapartum respiration. In their most recent paper Farber and Wilson have found in the lungs of premature infants areas of incompletely formed pulmonary tissue which does not represent true atelectasis. From studies such as these there seems to be no doubt that postmortem diagnoses of atelectasis and pneumonia as a cause of death may have in many instances been incorrectly made.

For the treatment of cyanosis due to atelectasis, inhalation of carbon dioxide and oxygen has been almost universally adopted. We have, however, no better statistical information as to results obtained from its use for this condition than we have from its use in resuscitation of the newborn. We know of no blood studies on the carbon dioxide and oxygen tension of the blood before and after treatment of infants with atelectasis. Clinical impressions indicate that results with Henderson's method of treatment are good and no reports of unfavorable results have been found.

An important cause of cyanosis in newborn infants is that of narcotization by morphine administered to the mother. Murphy states in his latest report (October, 1932) that this was the commonest cause of respiratory difficulty in the 66 cases reported by him. In spite of its apparent importance little or no attention has been given to the question of narcotization of the fetus if one may judge by the scarcity of reports in the literature since 1877 when a symposium on the subject was held in New York City. At these meetings a lively discussion ensued whether or not morphine given to the mothers might affect

the fetus' respiration. "This great battle ended," as Ballantyne¹² puts it, "with a splutter of fire on both sides and a few stray shots in the gathering darkness."

That the fetus may become tolerant in utero to the continued use of morphine is evidenced by a number of reports of women who, although morphine addicts and taking large doses of the drug throughout pregnancy, gave birth to infants who were apparently unaffected. The presence of morphine in the blood of an infant, and in the placenta of a morphine addict was demonstrated by Bureau. Plottier demonstrated morphine in the fetuses and placentas of rabbits; Marquis, the same in fetal kittens.

In regard to the effect on the fetus of morphine used for therapeutic purposes during the latter part of pregnancy and in the course of labor little has been found. DeLee¹³ states in his textbook on obstetrics that morphine may "pass over to the fetus which may be born completely asphyxiated." He points out that: "Morphine must be given at such a time that the fetus will have recovered from its effects before it is born, or at a moment when we are certain the drug will not have passed over to the child in any considerable quantity by the time that it is delivered," and that "morphine may be given up to 4 hours before birth, but not from then on until 30 minutes before delivery." In the many reports of the use of scopolamine-morphine anesthesia in obstetrics detailed data on the effect on the infant are few. Fetal mortality in these cases has been placed between 1 and 2 per cent (Williams). Rongy¹⁴ in a study of 2000 cases of "twilight sleep," reported that 78 per cent of the infants cried spontaneously, 16 per cent were born oligopneic and required "active resuscitation," 3 per cent were born "asphyxiated," and 3 per cent were stillborn. Shute and Davis studied the effect on the infants of morphine administered to the mothers in 320 cases. In 120 of these the infant showed some degree of narcosis, in 25 of which it was considered deep. Ten of the 120 infants died.

Because of the lack of clinical data on the effect on the fetus of morphine administered to the mother during pregnancy and labor, special consideration was given to this subject in the study of neonatal morbidity and mortality made in New Haven. In this study data on the administration of morphine to the mothers were obtained in such form that they could be related to the postnatal condition of the infant as well as to the prenatal, natal, and postnatal condition of the mother. In 963 cases, a history was obtained of whether or not the mother received morphine. Two hundred and twenty-one moth-

ers, or 23 per cent, were found to have received morphine and 742, or 77 per cent, to have received none. Detailed analysis of these 2 groups has been made to show if possible the effect of morphine administered to the mother on the incidence of stillbirths and neonatal deaths and on delay in the initiation of respiration. The fact that morphine may have been given more often or in larger doses when some condition existed which in itself may have accounted for death of the fetus or for delayed respiration will be referred to later. The findings of this study are given in detail because, though the data are not in some respects sufficient to be wholly conclusive, they in general indicate that morphine administered to the mother probably accounts for some fetal and neonatal deaths and for delay in the establishment of normal respiration in a certain proportion of newborn infants. When administered to a mother who has toxemia or whose labor or delivery is complicated, morphine apparently tends to increase the chance of delayed or absent respiration in the infant.

With regard to the incidence of stillbirths and of neonatal deaths in relation to the administration of morphine the study showed that both occurred more frequently when morphine had been given. In those cases in which the mother received morphine, 10 per cent of the pregnancies resulted in stillbirths, whereas in those in which the mother received no morphine, the incidence of stillbirths was only 5 per cent. Furthermore, neonatal deaths occurred nearly 3 times as often (6 per cent) if the mothers received morphine than if they received none (2 per cent).

Eastman has called attention to the fact that "a large proportion of stillborn fetuses show at autopsy no pathologic change, such deaths being usually described as due to asphyxia or acute anaërosis." He cites Peckham as having found in a statistical study of 1461 stillborn fetuses 28 per cent in which the cause of death was not demonstrated; in an additional 19 per cent it was listed as asphyxia. It is possible that if data were available as to the administration of morphine to the mothers some of these stillbirths, the cause of which was undetermined, might have been explained on the basis of narcotization. If stillborn fetuses are macerated, the effect which morphine may have had in bringing about the intra-uterine death is a matter of speculation, but it is possible that the administration of morphine may have reduced below the margin of safety for the fetus an already low oxygen tension in the placenta.

The expected effect of morphine would of course be interference with the initiation and satisfactory establishment of respiration with re-

sulting death or persistent cyanosis. Data whether respirations occurred or not and whether the respirations were immediate or delayed were obtained in 659 live born infants, including a few whose hearts beat but who never breathed. Analysis of these records shows that respirations were delayed or did not occur in 18 per cent of this total group, but when consideration was given to the effect of morphine it was found that delayed or absent respirations occurred nearly 3 times as frequently when the mother received morphine (35 per cent) as when she did not (13 per cent).

These data naturally gave rise to the query whether the respiratory difficulty in the fetus or infant was not due to some condition in the mother or some complication of labor or delivery for which the morphine was administered. In the group described there were 26 mothers who had toxemia, 210 whose delivery was operative, and 39 whose labor was prolonged. Since to each of these conditions respiratory difficulties in the newborn infant have been commonly ascribed in the past, the effect of each condition on the initiation of respiration has been considered, first separately and then in conjunction with the history of the administration of morphine.

The first condition to be studied was the toxemia of pregnancy. Since in the group already described there were only 26 cases of toxemia, an additional group of 124 cases of toxemia was included, cases for which information was also available on administration of morphine to the mother and on the establishment of respiration in the infant. Of this total group of 150 mothers who had toxemia, 79 had received morphine and 71 had not. When comparisons were made between this group and a group of 626 mothers who did not have toxemia it became clear that toxemia as well as morphine affected the onset of respiration. Delayed respirations occurred in 48 per cent of the infants whose mothers had toxemia but in only 16 per cent of those whose mothers had no toxemia. Since, however, the proportion having delayed respiration was much greater in those cases of toxemia in which morphine was given (70 per cent) than in those in which it was not (24 per cent), it would appear that morphine increased the tendency to delayed or absent respirations among infants of mothers with toxemia. Furthermore, it should be pointed out that the proportion having delayed respiration was also greater among infants of mothers who did not have toxemia when morphine was given (28 per cent) than when no morphine was given (13 per cent). In connection with these differences it should be remembered that in those

cases in which the mothers had toxemia the dosage of morphine was in all probability greater than in those who had no toxemia and the toxemia cases requiring morphine were probably more severe than those requiring no morphine. From these data we may conclude, however, that morphine and toxemia each has an effect on the respiration of the infant and furthermore that if morphine is given in the presence of toxemia the effect is even greater.

Interference with the onset of respiration is also frequently attributed to the trauma resulting from operative delivery. In the New Haven study there were 210 mothers delivered by operative procedures for whom information was available on the establishment of respiration in the infant. Of these, 90 received morphine and 120 did not. When comparisons were made between this group of 210 mothers and a group of 439 mothers who had spontaneous deliveries it became evident that operative delivery as well as toxemia and morphine caused delay in the onset of respiration. Delayed respiration occurred in 33 per cent of the infants of mothers delivered by operative procedure, whereas in those delivered spontaneously the incidence of delayed respiration was only 11 per cent. Since the incidence of delayed respiration was greater in those cases of operative delivery in which morphine was given (41 per cent) than in those in which no morphine was given (27 per cent) it would appear, as in the case of toxemia, that morphine increased the tendency to delayed respirations if delivery was by operative procedure. Furthermore it was found that the proportion having delayed respiration was considerably greater in spontaneous deliveries if morphine was given (26 per cent) than if it were not (8 per cent). As in the case of toxemia, the condition for which morphine was given must be taken into account for it is probable that morphine was given more often and in larger doses if the operative procedure was difficult. Nevertheless we may conclude from these data that morphine and operative delivery each effected the establishment of respiration but it would seem clear that if morphine is given in operative delivery, the tendency to delayed respiration in the infant is increased.

There are still other conditions to which fetal respiratory difficulties are often attributed, such as prolonged labor, placental and cord complications. In the study these conditions did not occur in a sufficiently large number of cases to be analyzed statistically.

Since it was evident that at least 2 factors other than morphine had a definite effect on the establishment of respiration, it was obviously

necessary to find out whether morphine alone had such an effect when all other factors were eliminated. Out of the total group there were 385 cases in which there was no history of any condition, other than the administration of morphine, which of itself as far as could be determined might account for delay in respiration. Of these, 48 were infants of mothers who for some reason were given morphine, and 337 those of mothers who had none. Of the former group of infants 15 per cent had delayed respiration; of the latter, only 4 per cent. The difference is sufficiently great to warrant the conclusion that morphine alone may in a certain proportion of otherwise uncomplicated cases bring about abnormalities of respiration in the infant.

Since the evidence in the New Haven study as well as in that of Shute and Davis shows rather conclusively that morphine plays a rôle in interfering with the establishment of normal respiration in the infant, it is important to know the symptoms of narcotization. The symptoms are those of "asphyxia" and the most important among them is cyanosis. The infant will appear drowsy and inactive and fail to cry or utter a feeble moan. Stimulation of activity or cry is usually difficult. Shute and Davis find that the pupils are moderately dilated but on resuscitation contract to pin point size. They have also noted in these cases less evidence of circulatory disturbance than in cases of "shock" or birth injury. It is obvious that the symptoms, with the exception of pin point pupils, are not pathognomonic of morphine poisoning in the infant because they are found also in those other conditions which affect respirations such as contusio cerebri and intracranial hemorrhage. A differential diagnosis is not always possible but it is important to know if the mother has received morphine, the dose of the drug, and the time before delivery that it was administered. The data from our study indicate that even if the dose is small or given more than 4 hours before delivery there is danger of narcotization of the fetus.

The treatment of narcotization of the newborn infant consists in the application of external heat and the giving of respiratory stimulants and artificial respiration. Only 4 references to the treatment have been found in the literature. Trusler and his coworkers found that carbon dioxide (10 per cent) and oxygen (90 per cent) given to the mother when the infant has been delivered but the cord was still intact increased the van Slyke reading in mother and infant and they state that this method is "of the greatest value in morphine depression." Murphy recently reported on the treatment in the Drinker respira-

tor of 16 narcotized infants, all of whom survived. He states that the respirator seems to be most effective in this type of case. Wilson reports that alpha lobeline ($\frac{1}{40}$ to $\frac{1}{20}$ grain) should be injected into the umbilical vein if a direct respiratory stimulant is needed as in morphine poisoning. Shute and Davis have had success in some cases with the administration through a mask of pure carbon dioxide "for 2 to 3 gasps" followed immediately by pure oxygen. They advocate 10 to 30 per cent carbon dioxide in oxygen followed by pure oxygen as a safe procedure. More clinical reports are obviously needed before we can be clear as to the best method to use.

The subject of cyanosis in the newborn infant is one of great importance. In undertaking its discussion, no attempt has been made to cover the whole field but merely to discuss those aspects of it which appear to be particularly important chiefly because they are the least well understood. Cyanosis as a symptom can not be intelligently treated until the causes underlying its production are thoroughly understood. There is obvious need for further experimental and clinical study are needed before further progress can be made.

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ABSTRACT OF DISCUSSION

HENRY PERLMAN (Philadelphia): I should like to ask Dr. Dunham what she thinks about the use of alpha-lobeline in asphyxiation of the newborn.

JOHN M. HIGGINS (Sayre, Pa.): I wish to ask Dr. Dunham if they have made any studies relative to the use of barbitol derivatives during the period of labor.

DR. DUNHAM (in closing): I have had no personal experience with either of these drugs. Dr. Wilson is

making a study of the effect of alpha-lobeline on the initiation of respiration. He has made a preliminary report, and has material collected for another report which he is now preparing for publication. In regard to the barbitol derivatives, I am unprepared to express an opinion.

PRURITUS*

Considerations on Its Pathogenesis

JOSEPH V. KLAUDER, M.D., PHILADELPHIA

The term "pruritus" implies sensation of itching unassociated with cutaneous manifestation other than that caused by scratching. It is with this meaning that the term is employed in this paper.

The pathway of the sensation of itching is the same as that of pain. A certain degree of stimulation is followed by itching while more severe stimulation is followed by pain.

The pathologic-physiologic alteration that motivates itching is apparently dependent upon an interplay of a number of conditions—anatomic and biochemical. The sympathetic nervous system, and through it the psychic state, plays an important rôle.

The threshold of itching varies in different persons as an inborn characteristic and varies, too, at different times and in different pathologic states. The temperament and the emotional states are influencing factors. Generally, itching is less pronounced, as is the case with pain, in phlegmatic persons and more pronounced in emotional persons. This emphasizes the important rôle of the sympathetic nervous system and the psychic state, as later discussed, in the causation of itching.

There are but few experimental studies that are helpful in the study of the pathogenesis of itching. Experimentally produced itching is seen in anaphylactic shock. From laboratory studies of Klauder and Brown and others, there is much evidence to show that the irritability of the skin is governed by the calcium-potassium ratio in the skin which is controlled by the sympathetic nervous system and is influenced by an interplay of other factors. It would, therefore, appear that at least one aspect of the pathologic-physiologic mechanism of itching centers around the calcium-potassium ratio in the skin.

PATHOGENESIS OF ITCHING

Itching may be generalized or localized. Localized pruritus most frequently involves the

genitalia, especially the vulva or the anus. The causes of itching are varied, in some instances no cause can be demonstrated. Of the ascribed causes, many are presumptive, especially the rôle of endogenous toxins.

I shall enumerate and comment upon the commonly ascribed causes and emphasize those which, in my opinion, are the most frequent and most important.

Mechanical.—The excessive use of soap and water and other agents that are fat solvents and produce dryness of the skin; irritation of clothes, especially woolen; irritation incident to uncleanness of the perianal region and of hard stools causing pruritus of the anus.

Thermic.—Change of temperature, as undressing in a cool or warm room, or incident to too many bed clothes; the appearance of itching at the beginning of cool weather, pruritus hiemalis, or, winter itch, and what is less common, itching appearing in hot weather, pruritus æstivalis; itching appearing after bathing, bath pruritus. Little is known regarding the pathogenesis of pruritus hiemalis, æstivalis, and bath pruritus. Itching may occur at the site of severe sunburn after the latter has disappeared and the skin becomes normal.

Infectious and Parasitic.—Cutaneous infection with streptococci fecalis has been attributed by D. H. Murray as a cause of pruritus ani. Many believe, however, that the presence of this organism in the anal region of patients with pruritus ani is without etiologic significance. Cryptic, amebic dysentery and intestinal parasites—oxyurid, ascaris, and tania—may cause pruritus ani. Intestinal parasites are more likely etiologic factors in children. Castalani has stressed tinea infection as a cause.

Chemical.—A variety of chemical substance and substances of exogenous and endogenous origin cause itching.

(a) *Exogenous:* With such substances, the relation between the exciting cause and effect is definite. Many idiosyncratic substances, depending upon their concentration and the patient's

* Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

degree of sensitization, cause itching without dermatitis. Other substances, not of an idiosyncratic nature, may cause itching without causing dermatitis or urticaria, for example, jellyfish, caterpillars and the plant, *mucuna*—the so-called itching powder. Secretions, excretions, and discharges, as well as chemically altered urine and stools may cause itching of the genitalia and of the anus.

(b) *Endogenous*: The rôle of endogenous toxins in the causation of itching is vague and is purely presumptive. Reference is made to toxins of gastro-intestinal origin and those of renal origin in nephritis and uremia. Diabetes and diseases of the liver are more definite causes. Diabetes, however, is not a common etiologic factor of generalized or localized pruritus. Of all patients with pruritus, diabetes is a cause in only about 3 per cent. Diseases of the liver—cirrhosis, gallstones with or without cholangitis and echinococcus, may cause generalized pruritus. Itching may exist without jaundice, indeed an excess of bilirubin in the blood may be the only clue as to the cause of persistent pruritus. Generalized pruritus invariably accompanies jaundice, and precedes it in about 20 per cent of jaundice cases. A feature of pruritus accompanying jaundice is the absence of excoriations from scratching. Diseases of the liver should always be considered in the study of patients with generalized pruritus. Of all patients with generalized pruritus, I would estimate jaundice as the cause in only 2 to 3 per cent.

In Schamberg and Wright's study of patients with generalized pruritus, hyperuricemia was present in 43 per cent. Treatment directed at the hyperuricemia appeared to be a factor in relieving the pruritus. The relation of hyperuricemia to pruritus is a mooted question.

Drugs.—Brief mention is made of cocaine and morphine since they are unimportant in a practical consideration of the pathogenesis of itching. Generalized pruritus or localized pruritus of the palms may occur as a toxicologic reaction to arsenic.

Allergy.—In experimental anaphylaxis, itching of the animal (guinea pig) is a cardinal and early symptom of anaphylactic shock. In serum sickness, itching of part of the cutaneous surface, not the site of urticaria, may be a conspicuous symptom. Itching as an isolated cutaneous symptom may accompany allergic reactions—asthma and hay fever, after exposure to the sensitizing substance. In acute allergic attacks, generalized itching may precede erythematous or urticarial eruptions and acute somatic symptoms. Tea, coffee, alcohol, condiments, pork, cheese, seafood and berries are the usually stated

foods that cause pruritus, although, theoretically, any food in the allergic state may act as an allergin. I have observed few instances in which it was definitely established that pruritus as an isolated cutaneous symptom, unassociated with somatic symptoms of allergy, was caused by food. I would, therefore, attribute to allergic reaction caused by food, an inconsequential rôle in the pathogenesis of pruritus. Much has been written about tobacco as a cause of itching. I am not certain if tobacco causes itching, and if so, whether the itching is an expression of an allergic reaction. Hartzell, for example, reported an instance in which the smoking of a strong cigar after dinner in the evening was invariably followed by pruritus of the anus lasting throughout the night. In this and similar cases reported, it is difficult to exclude suggestion as a cause.

Malignant Disease.—Although uncommon, itching may be caused by deep seated carcinoma, sarcoma, and lymphosarcoma. In these instances it is an early symptom and disappears after removal of the tumor. In this group may be placed pruritus which frequently accompanies Hodgkin's disease and leukemia, and always accompanies granuloma fungoides. In these diseases the itching is severe and persistent and often precedes for a long time frank manifestations of the disease.

Reflex Causes.—The intimate relation between the bladder, urethra, prostate gland in the male and the pelvic organs in the female, with the rectum, suggests that pruritus may exist as a reflex. Stricture of the urethra, hypertrophied prostate, chronic vesiculitis, stone in the bladder, and cystitis have been assigned as reflex causes.

Senile Pruritus.—Generalized pruritus occurring in an elderly person is usually severe and persistent. It is termed senile pruritus although it is doubtful if it is a disease *sui generis*. Hypertrophied prostate, kidney insufficiency, arteriosclerosis, and atrophic changes in the skin are the usually stated causes.

Glands of Internal Secretion.—Pruritus may occur in relation to the menstrual period and during pregnancy. In the latter event it is usually generalized and severe. Pruritus vulva, not uncommonly appears in the climacteric. These forms of pruritus suggest glands of internal secretion as an etiologic factor. Consistent with this, glandular therapy is at times effective in treatment.

NERVOUS SYSTEM

(a) *Organic*.—Many authors mention tabes, paresis, brain tumors, and hemiplegia as causes

of generalized itching. These conditions are rare causes of pruritus.

(b) *Functional*.—Generalized pruritus rather than localized pruritus may occur along with frank symptoms of an unbalanced action of the sympathetic nervous system—vagotonia, of which it is apparently a symptom. Study of the sympathetic nervous system, with reference to vagotonia and sympathicotonia, is always desirable in patients with pruritus.

In this group may be placed pruritus caused by a lowering of the threshold of itching as part of an alteration of the sensations and is representative of the overworked, tired, irritable person to whom a vacation is appropriately prescribed. It has been shown that after mental fatigue there is a decrease of tactile sensibility and an increase of pain sensibility. This alteration of the sensations partly explains why itching as well as pain is usually worse at night.

(c) *Psychogenic*.—This group, variously called "neurogenic," "cutaneous neuroses," "nervous origin," represents the most frequent cause of pruritus and is, therefore, the most important. In discussing this group, the following considerations are pertinent:

One is more conscious of the skin than any other organ, it occupies an important place in the consciousness. The skin is not merely a system of protective layers but is the site of most all the sensations. In cutaneous involvement, the skin is objectified by the individual because of disfigurement and through the sensation of itching. The influence of the psyche on the skin is greater than any other organ. This is apparent in the many cutaneous expressions of the emotions. The skin is an organ of expression, comparable only to that of the eye.

The location of itching frequently manifests the influence of events, recollections, conceptions, or suggestions. The following brief mention of case records evidences this as well as other aspects of psychogenic itching: A patient, a woman, experienced itching each Tuesday and Wednesday night. I regarded the itching as psychogenic, in relation to the death of her husband, which occurred shortly prior to the onset of the itching. Her husband died on a Wednesday night and was in a dying state for about twenty hours prior. Another patient complained of itching of the genitalia, a detailed history brought out the information that it appeared soon after illicit sexual intercourse during the absence of his wife. After this occurrence he scrubbed the genitalia more thoroughly and more frequently than usual. He was very remorseful, and in addition, fearful of having contracted a venereal disease.

Suggestion and autosuggestion may play a part in the causation of itching. The desire to scratch is contagious, and psychic impression may alone suffice to initiate the sensation of itching. This is exemplified in the occurrence of itching in those who observe others itch, from associational words—lice, parasites, fuzzy caterpillars, from fancied infestation with parasites because of contact with unclean or contaminated objects or persons. In one patient, itching of the scalp appeared each time she purchased a hat, which necessitated trying on a large number of hats (which others had similarly done) before the desired one is obtained.

Pain may appear at the site of psychic fixation and this also applies to itching; the former is well exemplified by the topalgias of Blocq, by which he designates a variety of monosymptomatic neurasthenia in which there is established a fixed pain in variable regions of the body but with an anatomic or physiologic delimitation. He regards the phenomenon as a clinical manifestation of a persistent sensitive image, analogous in the domain of the sensibilities to the fixed idea in the domain of the intelligence.

The foregoing serves to explain itching and other subjective sensations at the site of psychic fixation in the dermatophobias and psychic diffusion of itching. By psychic fixation and perhaps, too, by mental representation, the sensation of itching continues after a pruritic skin disease has been cured and the skin becomes objectively normal, as for example, the continuation of itching after scabies or pediculosis.

Pruritus may be the expression of a fatigue or anxiety neurosis, of a mental conflict—symbolic of soul pain, of an unconscious irritation, and as an expression of a dermatophobia.

Some writers conceive of the sensation and gratification of itching (not of the genitalia) as being closely akin to a lustful feeling and one that sometimes makes scratching veritably a sensual indulgence.

The sexual and lustful element in pruritus has been overemphasized; it has played an inconspicuous rôle in my patients. The analogy of an attack of pruritus to that of a modified perverted sexual act (mosochistic) has been pushed too far.

A considerable percentage of all patients with pruritus, particularly those patients with pruritus vulva and pruritus ani, are psychoneurotic and other symptoms of psychoneurosis are present and may be elicited from the history. In the vast majority of patients with pruritus vulva and pruritus ani, local examination fails to disclose the cause. In neurotic patients

with localized pruritus, which is usually of the vulva or anus, or with generalized pruritus, if a complete study fails to elicit any of the aforementioned outstanding causes, it is tenable to regard itching as a psychoneurotic symptom. In many psychoneurotic patients, the relation of pruritus to their psychoneurosis cannot be defined as clearly as in the aforementioned cited cases.

DISCUSSION

It becomes apparent that the causes of pruritus are varied and that a complete study of the patient is required. It should be emphasized that in some patients the cause cannot be discovered, not even of a presumptive character. The history is very important in furnishing a clue as to etiology and as a means of suggesting treatment. To elicit a psychogenic factor, time and indeed tact are required since the patient does not volunteer such information as marital difficulties, and what may collectively be called psychic irritation. The type of patient, the emotional background and environmental conditions are important aids in evaluating a psychogenic basis.

Attention should particularly be directed at the circumstances associated with the onset of pruritus, the circumstances associated with its continuation, its occurrence after a certain act, and its specificity referable to the time and place of its occurrence.

The occurrence of itching at a certain time, place, or after a certain act, does not necessarily connote a psychic or an allergic causation; for example, a generalized pruritus or localized pruritus of the palms appearing a few hours after an injection of arsphenamine, is a toxicologic reaction to arsenic. The nonpsychogenic type of pruritus may be manifested only after the patient disrobes. Pruritus generally, associated or unassociated with cutaneous efflorescence, is sometimes more pronounced after mental or physical fatigue and also at night. As already discussed this concerns a physiologic lowering of the threshold of itching and an increase of pain sensibility.

To summarize, clinical and laboratory study of a patient with pruritus should particularly exclude the following causes: Dysfunction of the sympathetic nervous system; diseases of the liver, hyperglycosuria, the blood dyscrasia already mentioned, tinea infection in pruritus ani, an allergic reaction, hyperuricemia. If these causes are excluded the possibilities are considerable that the pruritus is an expression of a neurosis.

It is not to be implied from this paper that all patients with generalized or localized pruritus are psychoneurotic. My intention is to stress the frequency of pruritus as a psychoneurotic symptom. The well balanced clinician approaches this diagnosis only after complete study of the patient.

1934 Spruce Street.

ABSTRACT OF DISCUSSION

JOHN H. STOKES (Philadelphia): Dr. Klauder has pioneered the conception of the psychogenic background of pruritus in this country. He and Dr. Hazen had the hardihood a good many years ago to go into the issue and point out many of its most essential features.

I might add one or two minor observations to his considerations of this question. First, one should realize that emotion complicates all itching. Itching is an emotion of the skin. It is cutaneous pain, one might say, and we should realize this complicating element in every syndrome in which itching appears, including eczemas, vulvar and anal dermatoses, itching toes and scalps, and so on.

Second, we should stress the point which Dr. Klauder brings out that itching is dependent on the individuality of the patient. Dermatologists sometimes feel themselves obliged by the circumstances of their work to take a short range view of their cases. I oppose this, and urge that in a moment of silent prayer as we meet him, so to speak, we view the patient as an individual. In that moment is the opportunity to consider the individuality of itching. Itching may be one thing with one person and an entirely different thing with another.

The vulvar pruritic eruptions and the anal pruritic eruptions often do have a sex element, and while I agree that too much emphasis can be placed upon it, none the less there is a relation. My fortune, or misfortune, has lately brought to me a number of cases of this kind. At the Mayo Clinic I saw a man with a dermatophytic infection between the toes, who objected vigorously to treatment of it because he received such pleasure from scratching it. The sex side of itching is an important factor. Anal itching, for instance, with nothing present, may sometimes be an expression of an anal fixation, and vulvar itching is not necessarily a menopausal symptom. Instances of genital itching coming on at some definite time, say four, eight or twelve o'clock, in association with previous sexual happenings, are well-known things whose existence we cannot escape.

Acarophobia is one of my special interests in the itching field. I saw a patient with acarophobia several days ago who impressed on me the great importance of not making a diagnosis of parasitism without convincing evidence. This particular patient says that she was not examined by the physician who first treated her, but was examined by the office nurse, and that the patient herself made the diagnosis of parasitism. She went the rounds of several physicians, each of whom treated her for a parasitic infection, and left her with an intractable and extreme acarophobia.

The last thing I want to bring out relates to the influence on itching states of gestures in treatment. When we inject into the patient some one of the numerous endocrines, the patient's itch disappears without any necessary etiologic connection with endocrinology, and similarly disappearance of itching can be produced by almost any equally impressive gesture such as auto-

hemotherapy; the gesture may be made by a flourished needle.

I want also to deprecate an overreliance on anti-pruritic drugs whose irritative effect often exaggerates the original trouble, which is only controllable by other means.

RALPH H. SPANGLER (Philadelphia): On the medical service at the Philadelphia County Prison there is no dermatologist and the medical man has to see skin cases as well as medical cases. In a prison population the opportunity for clinical study under controlled conditions is remarkable, and I regret that we do not have a dermatologist to see some of the very interesting cases that we encounter. In 1932 we studied 5053 patients that were referred to us. Of this number 421 were diagnosed as skin conditions: 143, scabies; dermatophytosis, 102; and third on the list was pruritus. We had 53 cases of generalized pruritus without definite pathologic lesions. Being interested in allergy I began to make some differential blood counts in the pruritic cases to see whether we could eliminate allergy as an etiologic factor. In very few of the cases did we find an eosinophilia, which is considered a characteristic finding in allergy. We did not make one differential count, but from 10 to 15 on each patient studied. One differential count with an eosinophilia may not prove anything, but a dozen differential counts, with an increase of eosinophils, we believed would justify us in making a diagnosis of allergic pruritus.

I had an interesting case in a man, age 43, highly

nervous and with many anxieties in connection with his prison confinement. He was to be examined before a Commission of Lunacy. Two days before the commission met he developed a most intense itching between his toes, but there was no skin lesion present. A differential blood count was done on him. The first count showed 16 per cent eosinophils. There were 5 or 6 other blood counts and they all showed an increase in percentage of eosinophil cells. Two hours before the commission met I was called to see him. He was broken out with tremendous crops of urticaria on his legs and arms. Dermographia was very well demonstrated on his back. While of course the neurotic element is recognized in all allergic conditions, it is particularly aggravated in a prison population, with the suppressed excitement, anxiety, and over-self-attention so common among prisoners.

However, 53 cases we could not classify as allergic and we termed them neurotic pruritus. When it came to treatment of the condition we thought in 4 or 5 cases we got particularly good results by using calcium night and morning on an empty stomach, and 2 teaspoonfuls of lactose at each meal.

FRANK C. KNOWLES (Philadelphia): Some of these generalized pruritus cases are of a neurotic type, or a psychic type, and all they require is a change of thought, and, therefore, you will find quite effective in the treatment of some of these cases the giving of drugs internally which have a rather marked odor such as asafetida or valerian.

SINUSITIS*

With Extensive Cranial Nerve Involvement

G. WILLIAM SCHLINDWEIN, M.D., ERIE, PA.

This case is reported without a definite diagnosis chiefly on account of the extensive cranial nerve involvement and the difficulty experienced in efforts to determine a satisfactory explanation for the underlying pathology. These difficulties were enhanced by the antagonistic attitude of the parents and the remote residence of the family in an outlying farmhouse under poor sanitary conditions.

REPORT OF A CASE

H. W., female, aged 8, reported Oct. 31, 1932, with a history that for a period of about 2 months there had been a very thick discharge of pus from the left nostril, that had continued for about 3 weeks. The left upper eyelid had begun to droop. There was no history of injury or of sickness of any kind. At the time of the onset of the ptosis there was some nausea but no headache. There was pain in the eye previous to the onset of the ptosis and this had continued since. She had attended school regularly until the onset of the eye complication.

Family history is negative.

Past history: Had no serious diseases. No history of scarlet fever or diphtheria. No contacts with poliomyelitis.

Examination: A thin, rather poorly nourished, child who did not appear to be in great pain but who was ill. Temperature was 98.8° F. At the first examination, there was a complete ptosis of the left upper lid with an associated left-sided facial paralysis. No motion of the left eye in any direction, the pupil was dilated and did not react to light or accommodation. No consensual light reflex. Loss of sensation over the left side of the face and a neuroparalytic keratitis had developed. Vision in the left eye was reduced to 5/70. The disk did not appear to be atrophic but due to finding no fundus pathology, it appeared as if the cause of poor vision was intracranial. There was involvement of the second, third, fourth, fifth, sixth, and seventh nerves on the left side. The nerves on the right side were uninvolved. Vision was 20/30 and fundus normal. Nose examination showed some swelling of the middle turbinate on the left side. There was no pus seen in the nose but the margin of the nares was crusted with blood where it was excoriated. Transillumination of the sinuses was too indefinite to be of value. There was restricted motion of the soft palate and the tongue deviated to the right side when extended, suggesting ninth nerve involvement. Ears and hearing were normal. The child was admitted to the hospital with an admission temperature of 99.6° F., falling in 24 hours to 97° F., at which it remained. Pulse, 100 to 110. Respirations, normal. The laboratory reported: The urine negative. The blood count showed white blood cells, 9400; leukocytes, 53 per cent; lymphocytes, 29 per cent; and mononuclears, 18 per cent. The blood

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

Wassermann and Kahn blood tests were negative; von Pirquet test, negative. Spinal fluid examination showed a pressure of 6 mm. of mercury, clear fluid with a normal cell count, normal colloidal gold curve, and a negative Wassermann test. Globulin was negative and sugar positive.

Roentgen-ray examination of sinuses and skull showed: "A few faint calcified spots in the posterior parietal region. Only questionable signs of increased intracranial pressure were seen. Sella turcica, normal. Attention called to the possibility of intracranial growth but insufficient evidence to make a diagnosis. All sinuses are clouded including the sphenoid, suggesting infection. Frontals are very small."

Neurologic examination: No nerves involved other than cranial nerves mentioned. Both motor and sensory spinal nerves are normal.

Child remained in the hospital for only 3 days. On Nov. 4, called at the house and found the mother holding the child in her arms insisting that if she lay the child down she screamed and became hysterical because of pain in the back. Temperature, 98° F. The child appeared to be drowsy due to the apparent loss of sleep the previous night. The condition of the cranial nerves remained the same. By Nov. 8, nine days after the first examination, there was beginning involvement of the right side. Examination showed the left-sided paralysis to be the same but the right third and sixth nerves were involved; mentally clear and no constitutional disorders present.

The child was not seen again until Nov. 20, at which time the last examination was made. The child was lying in bed, somewhat drowsy, but very clear mentally, recalling names and events readily. The ptosis of the left eye remained, with a partial ptosis of the right upper lid. Through the closed left lids, chemotic conjunctivæ bulged, the left eye was somewhat proptosed (because of lack of further function of the eye muscles?), the cornea almost anesthetic and there was a very large foul ulceration of the cornea almost through the substantia propria. The right eye was also completely immobile, the pupil dilated and not reacting. The media were clear and the disk margins were clean cut with no atrophy of the right disk. The other cranial nerves on the right side were still functioning. At this time there was a bilateral Kernig reflex but other peripheral reflexes were normal.

On Nov. 28, the child died, the attending physician giving acute ethmoiditis as the cause of death.

SUMMARY

This child eventually had involvement of the left second, third, fourth, fifth, sixth, seventh, and possibly ninth cranial nerves followed by at least the third, fourth, and sixth right cranial nerve paralysis. There was no necropsy. One week later, the next oldest brother, a big fellow, apparently in the best of health, while out hunting, dropped dead, aged 20.

DIAGNOSTIC POSSIBILITIES

1. Sinusitis with resulting meningitis: True, the roentgen-ray report indicated apparent involvement of all the nasal accessory sinuses but against this was the absence of definite clinical evidence of infection, normal to subnormal temperature, low blood count, and negative cerebro-

spinal fluid examination, even if there was extensive cranial nerve involvement. We will grant that death was probably due to meningitis but believe it merely terminal and not present when the cranial nerve involvement was so extensive.

2. Brain tumor: The roentgen ray suggested this diagnosis but if there were sufficient pressure to give roentgen-ray evidence in the bone, there would be a marked increase in the central nervous system pressure and also probable optic nerve changes. One could conceive of a ramifying glioma which caused widespread destruction without giving a marked increase in tissue and hence no increase in fluid pressure. This is a possible diagnosis but the course of events appears to be too rapid for this diagnosis.

3. Basal poliomyelitis: The mode of onset, associated nausea, and lack of definite constitutional disease are suggestive.

4. Encapsulated brain abscess: One would have to conceive a very large abscess even in the brain stem to give such a widespread paralysis. If it were this large, the spinal pressure should be increased.

5. Tuberculous meningitis: Excluded on account of the sudden onset and rapid course rather than a slowly developing one, and the absence of signs in the spinal fluid.

6. Lethargic encephalitis: This seems to be the most probable diagnosis. Against it is the age of the patient, its rather sudden onset with no prodromal drowsiness. In favor of such a diagnosis is the course of events, the paralysis, and the negative spinal fluid. In no other case that has come under my observation has there been present such extensive involvement of cranial nerves, and the sequence of involvement has been different. I recall no similar case described in the literature.

138 West Ninth Street.

ABSTRACT OF DISCUSSION

DAVID N. HUSIK (Philadelphia): Dr. Schlindwein sent me a copy of his case report, and though I have carefully studied his clinical findings, I admit I am just as much in the dark as to a proper diagnosis as the doctor was when treating his patient.

It is unfortunate that he did not have complete supervision of the case in a hospital in which he could have had the constant advice of a neurologist and internist, and still more unfortunate that a necropsy was not obtained, because that probably would have cleared up the various symptoms in this case.

It is difficult to diagnose a case from a report. The acute ethmoiditis probably had nothing to do with the latter symptomatology, especially since the sinus infection had apparently cleared up at the first nasal examination. The only evidence of sinus infection was the roentgen-ray findings.

The first neurologic involvement was the third nerve on the left side, and at first examination the statement

is made that there was no motion of the left eye in any direction. This of course means third, fourth, and sixth cranial nerve involvement on the left. The decrease in vision was probably due to the keratitis, the result of the fifth nerve lesion, and not intracranial. There was then involvement of the third, fourth, fifth, sixth, and seventh nerves. The ninth and twelfth are indefinite because with fifth nerve involvement the jaw often deviates and not the tongue, although it appears as though it is the tongue that does so.

Eight days later there was beginning involvement of the eye muscles on the right side, and 8 days before death there was complete paralysis of the third, fourth, and sixth cranial nerves on that side. A study at this time by a competent neurologist would probably reveal more than could be obtained from a history report.

A progressive bilateral, internal, and external ophthalmoplegia could come only from a lesion in the region of the interpeduncular space. It is not difficult to visualize a process going posteriorly along the base of the brain and implicating the sixth nerves as they go forward under the pons.

The seventh nerve involvement on the left side is difficult to account for without implication of the eighth, although it is possible to have a selective involvement of this character. In view of the negative spinal fluid findings, one's best guess is a basal process, neoplastic perhaps, although a slowly progressing well walled off meningitis is possible, especially if due to tuberculosis, even with early negative spinal fluid findings.

I am informed by Nathaniel W. Winkelman that he has recently seen a case in which there was a progressive involvement of the cranial nerves on both sides. At necropsy an enormous basal tumor was found, without increase of intracranial pressure and without roentgen-ray evidence that this lesion was present.

PHILIP S. STOUT (Philadelphia): About two years ago I had a somewhat similar case. I noticed the eighth nerve was not involved in Dr. Schlindwein's case. In my case, which was bilateral, all the nerves were involved except the eighth. It followed influenza. It was thought to be acute frontal sinus, but that was not the cause of the trouble. At first I, and the neurologist who was called, thought of acute meningo-encephalitis. We left the sinuses severely alone. Fortunately, the patient recovered and has been back at work for about 1½ years. There is complete recovery of all the nerves. The young man is about age 22 now. We saved the eyes by sewing the eyelids shut; they were kept closed until he recovered. Otherwise I think the eyesight would have been lost. He had complete paralysis of the intestinal tract, paralytic ileus, and was kept alive for a week or ten days with intravenous injections of glucose.

DR. SCHLINDWEIN (in closing): I have never been more disappointed in anything in my practice than in my inability to get these parents to let me try to work out the details of the pathology and the clinical part of the work.

BREAST TUMORS*

Study of 100 Cases

HERBERT B. GIBBY, M.D., WILKES-BARRE

The series of cases reported in this paper are confined to tumors of the female breast. Though the number of cases is not large, they represent the personal experience of the author, in private surgical practice, and present a fairly good cross section of this type of patient seeking the aid of the general surgeon in a community of about 300,000.

INCIDENCE OF CASES

There were 113 patients in the series with 129 tumors. Of the latter, 63 were malignant, 62 benign, and 4 unknown. No pathologic report could be found in the 4 unknown cases, 3 of which were clinically malignant, had radical operations, and are still living at 12, 19, and 21 years, respectively, following their operations. These are not included in the statistical tables. The incidence of malignant and benign cases was, therefore, practically the same.

Of the 15 cases that had more than 1 tumor, there were 3 each of malignant tumors of both breasts, and benign tumors of both breasts; 3 had malignant tumors following a previous

benign tumor of the same breast, 3 had benign growths in one breast, and malignant in the other, and 3 had benign growths at different times in the same breast.

AGE INCIDENCE

The age incidence of the 2 groups is interesting. The youngest patient with a benign tumor was age 10; the oldest, age 60. The youngest patient with a malignant tumor was age 30; the oldest, age 90. The maximum incidence lies between 45 and 50 years, corresponding generally with the majority of reports.

TABLE I.—*Age Incidence of Benign and Malignant Tumors of the Breast*

Age in Years	Benign		Malignant	
	No.	Per Cent	No.	Per Cent
10-19	1	1.5	..	....
20-29	10	15.6	..	....
30-39	10	29.6	12	18.7
40-49	25	39.0	24	37.5
50-59	8	12.5	14	21.8
60-69	1	1.5	8	12.5
70-79 .....	..	....	4	6.2
80-89 .....	..	....	1	1.5
90 .....	..	....	1	1.5

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

TRAUMA

Trauma as an etiologic factor was of no great importance in this series, only 20 per cent of the malignant and 14.5 per cent of the nonmalignant cases giving a positive history.

HEREDITY

Heredity is usually considered to be a factor of some etiologic significance. In our series, 9.5 per cent of the malignant cases had a family history of breast cancer, and 13 per cent a family history of cancer in some other part of the body, a total of 22.5 per cent; of the benign cases, there was a 9 per cent family history of cancer of the breast, and a 13 per cent family history of cancer in other regions of the body, a total of 22 per cent.

A striking illustration of the familial tendency of this condition is furnished by 3 patients in this series, all sisters whose mother died of cancer of the breast. Two of the sisters developed cancer in the left breast, one at age 54; the other at age 35; and the third sister developed adenofibromata of both breasts at age 50. A fourth sister, not included in this series (as she was operated upon by another surgeon) had a radical amputation of her left breast, and 15 years later she came under my care with a metastatic recurrence in a supraclavicular gland on the opposite side.

LACTATION

The effect of lactation as a predisposing factor is difficult to assess: 74 per cent of the malignant tumors and 58 per cent of the benign tumors occurred in breasts that had functioned. A pre-existing mastitis was present in only 7.5 per cent of the malignant and 9.5 per cent of the benign cases.

MENOPAUSE

The relation of the onset of the tumor to the menopause is apparently of no great significance. As one would naturally expect, the larger number of benign cases (74.4 per cent) occurred previous to the menopause, 1.6 per cent during this period, and 23.7 per cent following it. Malignancy being a disease of senescence, we are not surprised to find that only 41.2 per cent of these cases occurred before the menopause, 9.5 per cent during the change, and 49.2 per cent after it.

TABLE II.—*Age Incidence in Relation to Menopause*

	Before	At	After
Malignant ...	26 (41.2%)	6 (9.5%)	31 (49.2%)
Benign	44 (74.4%)	1 (1.6%)	14 (23.7%)

SYMPTOMS

The symptoms in this series of breast tumors were very few. In the majority of cases the discovery of the tumor was entirely accidental, and not preceded by any circumstance that attracted the patient's attention to the breast. In 27 cases each of the benign and malignant growths, pain was present, but in how many it antedated the discovery of the nodule it is impossible to state. The type of pain varied, in a few cases it was of a lancinating character; in others, a dull intermittent ache.

Two of the benign cases had a bloody discharge from the nipple; and 4 of the malignant cases had a discharge, one bloody, one pink, one dark, and the character of the other not stated in the history. In a few cases there was some retraction of the nipple, and in a few others a slight dimpling of the skin over the tumor.

PALPABLE LYMPH GLANDS

An important symptom from a diagnostic and prognostic standpoint is the presence of palpable lymph glands. These occurred in the lymphatics extending from the breast to the axilla along the anterior axillary border, or in the axilla itself. Cases with palpable supraclavicular glands were considered inoperable. There were 28 cases in this group with palpable lymph glands which were diagnosed clinically as malignant, and a radical operation performed. Six of these cases, on microscopic examination, proved to be benign, and so far have had no recurrence.

DIAGNOSIS AND OPERATIVE TECHNIC

The presence of a nodule in the breast is not difficult to determine in most cases. Occasionally, however, the nodule is so small and so intimately associated with the gland, that a most careful examination is necessary to assure one of its presence. Transillumination has proved to be of little assistance as a diagnostic aid in these cases. The roentgen ray has not been used a sufficient number of times to determine its usefulness, consequently reliance has been placed on careful but gentle palpation. The danger of rough handling of the gland is well illustrated by one case that had been subjected to massage by an osteopath previous to operation. There was an early recurrence, with general metastases.

The preoperative determination of whether a tumor is malignant or benign is not always easy. In this series, 58 cases were considered to be clinically malignant, but on microscopic examination 10 were found to be benign. Six of the 10 cases had enlarged glands, and 2, bleeding from the nipple. Sixty-three of the cases were con-

sidered clinically benign, but 14 were microscopically malignant.

It is our custom in all doubtful cases to excise the tumor, and get an immediate microscopic report from a frozen section while the patient is still under the anesthetic. If the case is malignant, an immediate radical operation is performed. So far there have apparently been only 3 mistakes in diagnosis by this method, and one of them was corrected on the sixth day when the permanent section was examined.

Two types of incision have been used. The one most frequently employed is an elliptical incision around the breast, going wide of the tumor, and removing the skin well up toward the axilla, but coming far enough anteriorly on the chest and curving around toward the shoulder to keep the scar out of the axillary fossæ, as the axillary scar is likely to interfere later with the motion of the arm. The other incision, the Stewart transverse incision, is not applicable to all cases, and does not allow as good an exposure for the dissection of the axilla, but gives a most excellent cosmetic result, and is more satisfactory to the patient.

The radical operation as we have performed it, consists in a dissection of the axilla before the breast has been handled, with a view to preventing an axillary recurrence. Whether there is more danger of producing an axillary recurrence than a mediastinal I have been unable to determine. The contents of the axilla are uncovered by severing the pectoralis major close to its humeral attachment, leaving only a few fibers along the under border of the clavicle, incising the axillary fascia along its upper border, and the pectoralis minor near its insertion into the coracoid process. The gland-bearing fat around the vessels and all the contents of the axilla below the axillary vein are dissected down toward the breast, separating it cleanly from the muscles which form the posterior axillary wall. The only structures that we aim to save are the long thoracic nerve and its accompanying vessels. The skin is undermined widely around the breast, and both the pectoral muscles with the overlying breast and fat, on the inner side as far as the sternum, below including the upper two inches of the fascia over the rectus, and posteriorly as far as the border of the latissimus dorsi muscle are removed in one mass. Careful hemostasis is secured and a Penrose drain inserted through a stab wound. The skin flaps are approximated by figure-of-eight silkworm gut sutures, and the incision closed with horsehair or dermal sutures. Large cotton pads are placed over the dressing and tightly strapped to the

chest to prevent the collection of serum under the flap. The arm is not confined to the side, and early motion of the same is encouraged. Most patients can raise the hand to the back of the head by the time they leave the hospital about 7 to 10 days after operation.

RADIATION

Since 1920, practically all the malignant cases in this series have been treated postoperatively with radium. Three cases were treated both preoperatively and postoperatively, and two cases preoperatively only. The radium treatment was usually given between the ninth and fourteenth days following the operation. The method of application follows: The chest wall from about the fourth rib upward, including the supraclavicular and the axillary regions, was marked off with pen and ink into rectangles, roughly $\frac{3}{4}$ inch by 2 inches in size, paying particular attention to the intercostal spaces near the sternum. Two 30 mg. capsules of radium, screened by brass and rubber and mounted on a piece of wood $\frac{1}{2}$ inch thick and the size of the rectangle, were placed on each of 2 adjacent rectangles, so as to get a cross fire, and allowed to remain from 6 to 8 hours in each pair of rectangles, a total of 2880 mg. hours being used as an initial dose.

No further radiation was given unless there was a local or regional recurrence. An elevated mass along the line of incision, or in one of the scars made by the silkworm gut, or the enlargement of an axillary gland were considered local recurrences and were usually treated by the insertion of radium needles into, or beneath, the growth.

One case, Mrs. J. C. L., age 38 at time of radical operation, is an interesting example of this treatment. Two and one-half years following the operation she developed an enlarged gland just below the outer end of the clavicle. Four 10 mg. radium needles were inserted into this gland for 14 hours for a total of 560 mg. hours. One month later the size of the gland had decreased considerably. Eight months later, several very small nodules could be felt along the anterior axillary border, which gradually increased in size, until 14 months after the previous treatment another interstitial radium treatment was given, 4 to 10 mg. needles being buried in the nodule for 18 hours, a total of 720 mg. hours. After 8 months, as the nodules were undoubtedly again increasing in size and number and becoming fixed, another radium application was given, 5 to 10 mg. radium needles and 2 to 5 mg. radium needles were inserted in the nodules for 18 hours, a total of 1080 mg. hours. Following this last treatment, the masses shrunk in size and became quite hard, but movable. They have shown no further evidence of activity, and at the present time, 6½ years after the last treatment, are hard cicatricial masses, probably inclosing potentially malignant cells imprisoned by fibrous tissue.

END RESULTS

There was no operative mortality in the series. There were two cases of inflammatory cancer. Both were subjected to radical operations and one to radiation. Both patients had early local recurrences and metastases and died, one within 3 months, the other within 10 months. The only justifiable procedure in this type of carcinoma is a mastectomy, to remove the ulcerating, sloughing tumor. Further surgery only hastens the spread of the disease. Three cases had a metastasis to the skeletal system without local or regional recurrence, one within 6 months after operation (the tumor had appeared 8 months previously), one within 20 months, and the other within 7 years. The second and third cases had postoperative radium radiation. In other cases the bones were no doubt involved along with metastatic recurrences of other parts of the body, but the recurrence in the soft parts was prominent.

Contrary to my previous impression, younger patients in this series had a longer freedom from recurrence than older patients. Of 20 cases of carcinoma operated on before the menopause, 14 were free from recurrence for more than 3 years, 10 for more than 5 years, and 3 for more than 10 years. Of an equal number operated on after the menopause, 7 had no recurrence for more than 3 years, 3 for more than 5 years, and 1 for more than 10 years.

TABLE III.—Survivals

	No. Op.	3 Yrs.	5 Yrs.	10 Yrs.
Before menopause ...	20	14	10	3
After menopause	20	7	3	1

The average age of 59 patients with carcinoma at the time of operation was 50.6 years. This is in contrast to the average American age of 52.9 years, established by Wainwright in a comprehensive survey, and of 51.4 years in Lane-Clayton's British series of cases.

RECURRENCE

We have been able to trace accurately a total of 54 of the malignant cases in this series. Of this number 29 cases (53.7 per cent) had recurrences, and 23 of these cases (79.5 per cent) developed their recurrences under 2 years; of the remaining 6 cases, 2 recurred between the second and third years, one each between the third and fourth and the fourth and fifth years, one between the seventh and eighth years, and one at ten and one-half years. (This last patient de-

veloped a small nodule in the axillary region. This was treated by an interstitial radium application on Oct. 29, 1932. The nodule disappeared entirely and at the present time, 11 months after the radium was used, there has been no further recurrence.)

TABLE IV
Recurrences

Years	0	1	2	3	4	5	6	7	8	9	10	Total
Cases	15	8	2	1	1	...	1	...	1	...	1	29 (53.7%)
Local	5	6	2	1	1	...	...	...	...	...	1	16 (55.1%)
Regional ...	7	7	2	1	1	...	...	...	...	...	...	18 (62.1%)
Metastatic .	14	8	2	...	...	...	...	1	...	...	...	25 (86.2%)

Recurrences Within 3 Years

54 Cases	25 (46.3%)
12 Cases	...
Op. within 1 mo.	3 (25.0%)

Fifteen (51 per cent) of these patients with recurrence died within 2 years; 14 (48.2 per cent) developed metastases under one year. It is probable that the majority of these 14 cases had a metastasis at the time of operation. Twenty-seven patients died of recurrent carcinoma; 4 without recurrence. Of the latter, 2 patients died within 2 years, one of pneumonia and one of heart disease; one died 5 years after operation from carcinoma of the rectum (hardly a recurrence), and one of old age, 12 years following the operation.

SURVIVALS AND CURES

In distinguishing survivals and cures, we have listed as cured only those patients in whom there has been no evidence of any recurrence whatsoever. There are some probable cures among the survivals.

TABLE V.—Survivals and Cures

	3 Yr.	5 Yr.	10 Yr.
Survivals	21 (51.2%)	13 (37.1%)	4 (16.6%)
Cures	16 (39.0%)	12 (34.2%)	3 (12.5%)
Survivals:			
Operation with-			
in 1 mo.	5 (62.5%)	3 (50.0%)	1 (25.0%)
Operation after			
1 mo.	16 (41.4%)	10 (31.2%)	3 (13.0%)

We have noted that in those patients operated on within one month after the discovery of the tumor, a better percentage of survivals for each of the 3, 5, and 10 year periods, has been secured.

GLANDS

In regard to the presence of enlarged glands at the time of operation, 52 patients have been

traced. In 23 of these, enlarged glands were present; 29 were free from glandular enlargement. There were recurrences in 15 cases (65.2 per cent) with glands present, and in 12 cases (41.3 per cent) without glands. Only 3 patients (18.7 per cent) in whom glands were present have lived beyond 5 years; of the patients without glands, 10 (55.5 per cent) have lived more than 5 years, and 4 (30.7 per cent) have survived the 10-year period.

TABLE VI

Survivals

	3 Yr.	5 Yr.	10 Yr.
With Glands	7 (41.1%)	3 (18.7%)	0
Without Glands ..	14 (58.3%)	10 (55.5%)	4 (30.7%)

Recurrences

With Glands	15 (65.2%)
Without Glands	12 (41.3%)

RADIATION WITH RADIUM

Twenty-three patients have received postoperative radium treatments within 2 weeks following the operation. Comparing this group with a group of 14 cases that received no radium treatments, we find an early local and regional recurrence in the radiated group in the proportion of about 3:1 to the group that received no radium. The 5-year survivals, however, are slightly in favor of the group receiving radium; the 10-year survivals are 3:1 in favor of the radium cases.

If we consider the presence or absence of enlarged glands, the cases with no enlargement of the lymphatic glands that were treated with radium had much the better score on all counts, except that of local recurrence. In the group with enlarged glands, radium seems positively contraindicated, as there was a general recurrence in 90 per cent of the radium treated cases, a local recurrence in 80 per cent and no 5-year survivals, as against a 57.1 per cent general recurrence, a 42.8 per cent local recur-

rence, 71.4 per cent 3-year survival, and a 42.8 per cent 5-year survival of the nontreated series.

While the study of so small a group of cases does not prove anything conclusively, I am inclined to believe from the early local recurrences (60.8 per cent in the radium treated cases), that an early radium treatment breaks down the normal resistance of the tissues to a greater extent than it destroys the malignant cells, accordingly in the future I shall delay the treatment with radium until at least 2 to 3 months following operation, and in the cases with enlarged glands discontinue its use, except for treatment of local recurrences.

SUMMARY

This study comprises 129 tumors of the female breast, occurring in 113 patients, practically evenly divided between malignant and benign growths, with no operative mortality. The presence or absence of enlarged lymphatic glands at the time of operation is the most important factor in the prognosis of the malignant cases.

Of the 27 deaths from recurrent carcinoma, 23 cases developed their recurrence within 2 years of the operation.

Radiation with radium apparently increases the number of 5- and 10-year cures, although it is probably contraindicated as an immediate treatment in the patients with enlarged glands.

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ABSTRACT OF DISCUSSION

JONATHAN M. WAINWRIGHT (Scranton, Pa.): Though I have had little experience with the types of transverse incision, I am impressed that the original incision that Halsted and Meyer suggested in 1896 is the best one, especially as has been amplified by Handley, of England, who says that the excision of skin must be circular, must be at least 5 inches in diameter, and that the center of this circle should be the tumor, not the nipple.

Another important thing is that the incision should be long to accomplish what is necessary in a breast carcinoma. Every incision of the Halsted-Meyer-Handley type should be from 15 to 18 inches in length which averages one-fourth of the woman's height. An incision 16 inches long is just one-fourth of the height of a woman 5 feet 4 inches high. I have no figures to prove it but am as certain of this as of anything in my

TABLE VII.—Postoperative Radiation—With and Without Glands

	Postoperative		Without Glands		With Glands	
	Rad.	No Rad.	Rad.	No Rad.	Rad.	No Rad.
Patients	23	14	13	7	10	7
Recurrence	16 69.5%	8 57.1%	7 53.8%	4 57.1%	9 90.0%	4 57.1%
Local and Reg.	14 60.8%	3 21.4%	6 46.1%	0 0	8 80.0%	3 42.8%
Survivals:						
3 yr.	12 52.1%	9 64.2%	10 76.9%	4 57.1%	2 20.0%	5 71.4%
5 yr.	8 42.1%	5 38.4%	8 72.7%	2 28.5%	0 0	3 42.8%
10 yr.	3 25.0%	1 8.3%	3 42.8%	1 16.6%	0 0	0 0

experience in medicine or surgery, that the more you shorten the incision from 15 to 18 inches the more good results will be diminished.

The great importance of a long incision is that it gives ample facility for removing the pectoral muscles, and that is a point in Dr. Gibby's paper that needs emphasizing. The removal of the pectoral muscles does not interfere with the function of the arm. Removal of both muscles never appreciably limits function. A woman who had both muscles removed for bilateral cancer; the movement of the arms is perfect. She has had no disability at all.

What impairs motion in the arm after a breast operation is extending the incision across the axilla, which binds structures down. If the incision extends over the shoulder the arm is not interfered with at all.

There is an imperative need of removing the muscles in a breast operation. Unfortunately even at the present time the muscles are not always removed by trained surgeons and the percentage of cases in which they are removed by the occasional operator is very small.

Many surgeons will tell you that if you carefully dissect off the fascia over the pectoral muscles you need not remove the pectoral muscles themselves. But if 3 or 4 nodules are in the substance of the muscle they would be entirely missed in any dissection of the fascia over the muscle, so that an operation which left these muscles behind would practically do that patient no good. Nothing is known as to content of muscles unless the pathologic examination includes a strip of muscle 4 or 5 inches long extending under the entire breast. In such large sections it will be found that the muscle involvement is present in about 60 per cent of the breasts removed.

If there is a nodule, not even in the substance of the muscle, but on the posterior surface of the muscle, it will be necessary to excise the pectoral muscles when doing a breast operation.

Some surgeons think it is very well to remove the large pectoral muscles and that it is safe to leave behind the small pectoral muscles. Removal of the pectoral muscles will never impair the function of the arm.

BRONCHIAL OBSTRUCTION*

With Special Reference to Endobronchial Tumors

CHEVALIER JACKSON, M.D., AND CHEVALIER L. JACKSON, M.D., PHILADELPHIA

Prior to the advent of the bronchoscope, bronchial obstructions were classified according to the findings of the pathologists at necropsy. A bronchus was found to be partially or completely obstructed; studies were sometimes made to show the pathologic anatomy of the obstruction. To these necroptic narrowings the investigations of the bronchoscopist have added a new and extremely important class of obstructions caused by physiologic conditions that cease at death. Nothing could be more striking than the contrast seen through the bronchoscope on examination of the tracheobronchial tree of a patient and of a cadaver, respectively. Obstructions seen in the living may be absent in the cadaver; certain kinds of postmortem obstructions may not have existed during life. After death a lumen or absence of lumen is of fixed, rigid, character; during life the bronchi not only expand and contract, they also elongate and shorten, they dinge in here, swell out there, with a flexible, wavy motion, beautiful to behold; movement is visible everywhere in the normal; its absence in any part denotes pathology; its presence causes peculiar changes if pathologic conditions coexist.

These constant movements cause valvular types of obstruction that are peculiar to the tracheobronchial tree. As previously demonstrated, the valvular mechanisms are of three varieties, stop valve, by-pass valve, and check valve; the latter may be reversed. This check-valve action may

cause obstructive atelectasis (without pneumothorax) or obstructive emphysema, according to whether the placing of the valvular mechanism favors ingress or egress of air. Check valves may be of the flapping type, but the largest factor is the inspiratory enlargement and expiratory diminution of lumen. These may act alone or in combination with a flapping tumor. A complete conception of this valvular mechanism is essential for the interpretation of roentgen-ray findings and physical signs as well as for proper treatment of diseases of the lungs.

PHYSICS AND MECHANICS OF BRONCHIAL OBSTRUCTION

There is one fundamental physical and mechanical difference between the air passages and all other channels in the human body, namely, the reciprocal, or to-and-fro flow. In studying the physics and mechanics, normal and pathologic, of the intrathoracic viscera, especially the lungs, we should get our basic conception from a bellows. Except in case of study of thoracotomy we eliminate the flapping, leather top valve of the bellows because there is no hole in the chest wall. Working the bellows 18 times a minute produces a nearly perfect simulation of the fundamental physics and mechanics of pulmonary physiology. The nozzle represents the trachea or the main bronchus of one lung. So long as it remains unobstructed normal ventilation and air pressures are maintained in the lung. If we cork the nozzle no air passes and we thus simulate occlusion of a bronchus as by a tumor for instance. Now if we

* Résumé of lantern and motion picture demonstration before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

connect a check valve with the nozzle, with the check against inflow, working the bellows will pump the bellows empty of air, simulating obstruction are easily seen in action by means of valve the same to-and-fro motion imparted to the bellows will pump the air into the bellows; its consequent distention will simulate obstructive emphysema. These three types of bronchial obstruction are easily seen in action by means of the bronchoscope.

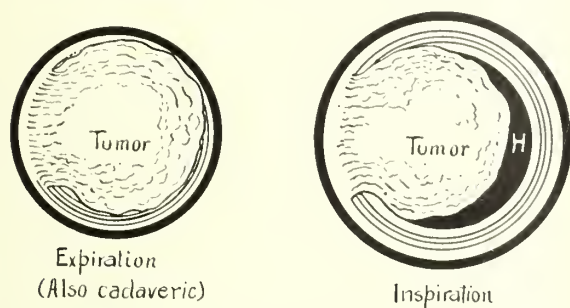


FIG. 1.—Schematic illustration of the mechanism of check-valve obstruction of a bronchus by a tumor producing obstructive emphysema of the distal portion of lung. At the left is shown the bronchial walls at expiration; the tumor completely occludes the bronchial lumen. At inspiration as shown at the right, the enlargement of the bronchus carries the wall away from the tumor opening up a crescentic lumen (H) for the inward passage of air. At the beginning of the expiratory phase the circumference of the whole bronchial wall promptly diminishes to the expiratory position (left) obliterating the lumen (H) and trapping the air below. Repetition of these movements at each respiratory cycle balloons the tributary portion of lung, constituting obstructive emphysema. This is the expansile form of check-valve mechanism, which is entirely independent of any flapping or ball-valve mechanism which may or may not be present. When in course of time the tumor grows so large that the inspirational dilatation cannot open a space (H) for passage of air the bronchus is occluded. For a time the expulsion of residual air on expiration, especially if forced as in cough, pushes upward the occluding tumor permitting exit of air. Immediately at the onset of the inspiratory phase the tumor drops back to the occluding position, preventing ingress of air, and producing a reversed check-valve action with resultant atelectasis in the distal part of the lung. Later, additional growth results in stop-valve obstruction, and absorption of air by the circulation adds to the atelectatic condition. In some cases this absorption by the circulation alone produces atelectasis without the aid of the reversed check valve; this is a slower process, the reversed check valve is rapid. The bronchi in the cadaver are in the expiratory position; respiratory movement is required for check-valve action.

FACTORS IN CHECK-VALVE OBSTRUCTIONS

The bronchoscopically demonstrated fact that a tumor may, by valvular action, cause obstructive emphysema or obstructive atelectasis is now accepted, but the various elements that may enter into the mechanism are not so generally understood. One or more of the following mechanisms may be concerned:

1. Inspiratory enlargement and expiratory diminution of lumen are fundamental to all forms of check-valve action.

2. Narrowings of the bronchial lumen are relative. That is, a small bronchus is normally small, and it serves only a small portion of lung; when a normally large bronchus is diminished to the actual size of a small bronchus the large area of tributary lung suffers from inadequate serv-

ice—obstruction exists and the lung suffers from lack of ventilation and drainage; suppuration usually follows. To this mechanically simple state of conditions, as shown by bronchoscopy, there is an entirely new element introduced, namely, check-valve action. The large area of lung supplied through the small lumen is subject to variations in the size of the obstructed lumen on expiration and inspiration, amounting often to obliteration at the expiratory diminution.

3. A pedunculated tumor may flop to-and-fro in the respiratory air current, causing emphysema or atelectasis according to "the set of the valve." This flopping form is frequently seen in combination with the expansile form of check valve, but is not so often seen alone.

4. A sessile or an annular tumor may diminish the lumen to the degree at which it is obliterated early in each expiratory phase, causing trapping of air and distal emphysema. This expansile check valve is the most common form of mechanism and it often synchronizes with other forms.

5. Peribronchial growths or masses may by compression diminish the lumen to the point of setting up valvular action.

6. A malignant, or a secondary inflammatory process, not itself obstructive, may produce an adenopathic compression or involvement of the bronchial wall sufficient to cause any of the three types of bronchial obstruction.

7. Inflammatory changes in the bronchial mucosa secondary to a neoplastic process not itself obstructive may be the only mechanism involved or the most important one.

8. Granuloma and granulations in a perimalignant zone may assist or be the sole mechanism.

9. Secretions, normal or pathologic, alone or in combination with a pathologically diminished lumen, constitute a common form of mechanism.

10. Blood clots may do the same thing, but not for long.

11. Crusts and more or less solid exudates may act alone or synchronize with other forms, especially the expansile.

DIAGNOSIS AND DIFFERENTIATION

That bronchial obstruction exists can usually be determined by the roentgen ray but the diagnosis as to the mechanism and the structures that are producing the obstruction can be determined only by bronchoscopic examination. The diagnosis rests upon the solid foundation of *bronchoscopic biopsy*. By means of the bronchoscope the histologist is presented with material he before had little or no opportunity to study.

TREATMENT

In the treatment of bronchial obstruction caused by tumor, or, indeed, by any other bronchial or pulmonary condition, it should be remembered that the bronchoscope is a bronchial speculum. To omit its use in diagnosis is to fail to give the patient the benefit of all that modern

medical science can do for him; after the diagnostic study conditions found may be such that: (a) Efficient treatment may be given through the bronchoscope; (b) external operation may be necessary; or (c) medical care and management may fulfill all indications.

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GALLBLADDER DISEASE IN THE YOUNG*

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Many instructors in medicine and surgery have taught that cholecystitis and cholelithiasis develop at middle life or after that period and that symptoms pointing to the gallbladder should not be expected much before age 40. Practically all textbooks in common use still state that gallbladder disease in young persons is a curiosity and happens rarely.

On the contrary, the current medical and surgical journals have published case reports and reviews with increasing frequency the past 10 years, calling to our attention the fact that cholecystitis, with or without calculi, is a common occurrence, not only in the young but also in children and that the condition may develop *in utero* and be proved by necropsy in infants, who succumb soon after birth.

This apparent lack of uniformity of opinion prompted me to review my work in gallbladder surgery and at present I am of the firm opinion that pain, nausea, and tenderness over the gallbladder indicate cholecystitis in an infant, a child, or a young adult just as they have always done in adults.

From my series of 555 patients treated for gallbladder disease, 5 case histories are selected and will be given a very brief summary of observations and management of them.

CASE 1.—A boy, age 14, developed typhoid fever. Early in the fourth week of his illness, he was suddenly seized with violent upper abdominal pain, vomiting, and tenderness over the region of the gallbladder. Three days later he showed definite evidence of collapse and peritonitis. Incision over the gallbladder showed total gangrene of the gallbladder and many ounces of clean yellow bile in the general peritoneum. In an effort to lift the gallbladder into a favorable position, it separated from the liver and was delivered without any definite resistance. There were no stones in the gallbladder or cystic duct. The cystic duct stood open and bile was discharged. There was no bleeding from the cystic artery and only a very slight venous bleeding from the liver. It seemed apparent that an embolus had blocked the cystic artery and

produced the gangrene. Following a loose closure of the incision with drainage, the patient recovered.

CASE 2.—A girl, age 14, who had complained of epigastric distress and belching after meals for 3 years, was suddenly seized with violent pain in the epigastrium. She vomited and was not relieved until the family physician administered morphine. Tenderness and muscle spasm along the right costal margin were present. A few days later, flat roentgenograms of the abdomen were made and many stones were seen. After the acute symptoms had subsided, an incision was made through the right rectus muscle and the gallbladder found to contain more than 50 stones. The firm, smooth, and sharply faceted state of these stones convinced me that they were not of recent formation. Her appendix was subacutely inflamed. She recovered promptly after cholecystectomy and appendectomy.

CASE 3.—A girl, age 16, had been in good health until she was suddenly seized with a typical, acute attack of biliary colic. The pain, tenderness, nausea, muscle spasm, and slight jaundice prompted the physician to order no roentgenograms. At operation the gallbladder was distended, because of obstruction of the cystic duct. Many soft cholesterol stones were seen in the gallbladder and 2 or more blocked the duct. The appendix was normal. Cholecystectomy and routine appendectomy were performed. The patient made an uneventful recovery.

CASE 4.—A boy, age 21, was suddenly attacked, at age 15, with upper abdominal cramp, vomiting, and tenderness over the gallbladder. Morphine was necessary and in this first attack, operation was advised. His parents refused and he continued to have attacks, similar to the one described above, from one to 2 times a year. During each attack his parents refused operation and each time morphine was given. In the final attack the symptoms did not cease. Vomiting persisted. The blood pressure dropped to an alarming degree, the pulse became weak and rapid and the abdomen showed much distention, especially in the upper half. These symptoms were interpreted as those of acute pancreatitis. Operation was performed immediately and the entire pancreas showed marked, acute inflammation. Much blood stained serum and many small areas of fat necrosis were found in the general peritoneum. The gallbladder was edematous and filled with stones. No stones were palpated in the common duct. The gallbladder was removed and the serosa opened over the head of the pancreas to facilitate drainage. The patient's recovery was stormy and the incision broke down. After weeks of drainage, he recovered.

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

CASE 5.—A girl, age 17, complained of fullness and distress in the abdomen after meals. These symptoms had been present for a month only. On several occasions she complained of cramp in the abdomen. At times the cramp was followed by tenderness along the right costal margin and pain referred through to the right shoulder. On admission to the hospital, tenderness and muscle spasm over the gallbladder were easily elicited. Under general anesthesia, a right rectus incision was made and the gallbladder found to be tightly distended and subacutely inflamed. There were no stones in the gallbladder. Palpable lymph nodes were present at the cystic duct. The common duct and pancreas were normal. Cholecystectomy and appendectomy were done. The patient had no serious complication after operation and has remained entirely well. The marked improvement in this patient's symptoms indicates that blockage of the cystic duct, caused by an inflammatory reaction, is as capable of producing symptoms as blockage of the duct by stones.

TABLE I

<i>Age</i>	<i>Females</i>	<i>Males</i>
10-20 years	10	1
21-30 "	69	21
31-40 "	88	50
41-50 "	66	30
51-60 "	48	22
61-70 "	21	11
71-80 "	5	0
Age unknown	85	28

At this point may I call attention to the fact that the symptoms pointing to the gallblad-

der were definite enough to require medical treatment at the age 14, in Case 1; age 11, in Case 2; age 16, in Case 3; age 15, in Case 4; and age 17, in Case 5.

Table I is a description of the sex and age incidence in the entire group of patients treated for cholecystitis.

A study of Table I discloses that 11 or 2.48 per cent of the patients whose ages were known came with gallbladder disease before age 20; and 239 or 54.07 per cent of the patients whose ages were known came with cholecystitis before age 40. It is also interesting to note that, contrary to the common belief, 163 or 29.4 per cent of the entire series were males.

It has been my hope to present evidence in favor of 3 points:

1. Symptoms of cholecystitis should never be disregarded, no matter in how young a patient they appear.

2. Undiagnosed and untreated gallbladder disease is capable of producing serious liver and pancreatic damage in the young as well as in adults.

3. Cholecystitis, without calculi, requires the same careful analysis and management accorded the same condition with stones.

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POSTURAL TREATMENT OF VISCEROPTOSIS*†

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The problem of what to do for the so-called visceroptotic patient confronts every doctor sooner or later. We do not know what is really the matter with such a person, for studies of college students have showed many of the healthiest of them to have viscera as low as have the chronic visceroptotics. We treat him in every way imaginable, and almost all the forms of therapy recommended cure the symptoms in a certain number of cases though not always for very long. It is clear from the variety of procedures advised that no one of them is wholly satisfactory.

The most commonly recommended measures are rest, a high caloric diet (sometimes with insulin), sedatives, an abdominal support, and even such psychiatric procedures as psychoanalysis.

In severe cases one is apt to see many, if not all, these treatments applied simultaneously in a régime that frequently keeps the patient quite comfortable while living as an invalid but fails to enable him to earn a livelihood. Of the more specialized forms of treatment the Goldthwait method of postural correction is outstanding. It has frequently been found effective in relieving the symptoms ascribed to visceroptosis.

The hypothesis forming the basis of this treatment is that our ancestors at some time changed from a quadruped to a biped existence, but carried over an anatomic arrangement still clearly adapted to the horizontal posture. On this basis the symptoms of visceroptosis may be due not simply to ptosis of the abdominal viscera but to an inability of the individual as a whole to compensate for all the new stresses and strains to which he is subjected by a posture for which he is ill adapted. That the persons of lean asthenic habitus with narrow vertebræ and supple spines

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† From the Gastro-intestinal Section of the Medical Clinic, University of Pennsylvania Hospital.

should find it more difficult to maintain the erect posture is inevitable. Furthermore, if in these, some factor, such as a severe illness, intervenes to lower the bodily vitality, the energy required to maintain an upright carriage may be totally lacking. The head slumps forward, leading to compensatory lumbar lordosis, the ribs drop toward a vertical position, the chest becomes flat, the abdominal viscera are displaced downward, and a bulge of the lower abdomen becomes increasingly prominent.

Several possible ways in which this can affect the health of the individual have been described. In man, for example, the last valve in the femoral vein occupies a position which in a quadruped would be the highest point of the inferior caval tree. From this position in the quadruped blood would flow down hill to the heart. In the erect animal, however, this valve is in the groin and we must postulate a mechanism for returning the blood through a vertical rise of several inches to the right side of the heart. The diaphragm is said to do this by a "pumping" action, yet in the visceroptotics with bad posture the diaphragm has not only been displaced downward by the dropping of the ribs to which it is attached but the shortened diameters of the chest have reduced its base. Both these factors militate against an efficient diaphragmatic function, and indeed the diaphragmatic movement generally seen in the visceroptotic is minimal. Under these conditions, if the diaphragm alone can bring back the venous blood from the lower half of the body, abdominal venous congestion must develop.

Another possible correlation of bad posture with the symptoms of chronic abdominal distress lies in the wide variation in the relations of the abdominal viscera to each other. Such things as the position of the stomach, the length of the mesocolon, and the occurrence of congenital veils and bands make it entirely possible that a degree of ptosis not affecting one individual might in another lead to angulations, kinks, and abnormal pressures upon vital organs.

Still other hypotheses have been advanced linking faulty posture to endocrine glands, irritation of autonomic nerve plexuses and even considering the whole picture of ptosis as of mental origin. Here the posture with its attendant visceroptosis is looked on as an attitude of dejection and as an effect rather than a cause of the symptom complex.

Turning from theories to the practical question of what postural training will do to the individual patient one finds far less of a concrete nature. It is difficult to determine from the literature how to estimate the chances of relief

in a specific case. One does not know whether trained technicians are required or what chance of success one would have with patients of limited means or those who must continue to earn a living while under treatment. It is possible because of this paucity of specific information that the medical profession as a whole has made so little use of this procedure, though it has been in practice for 20 years in the Goldthwait Clinic.

Because of this it seemed to me worth while to try to determine what results could be achieved among the outpatients of a hospital clinic without special instructor or technician and so far as possible without recourse to other coincident treatment. The specific questions to be answered were: (1) Can posture be corrected and the correction maintained after supervision ceases; (2) does relief of the symptoms commonly ascribed to visceroptosis follow correction of posture, and (3) what specific symptoms are most commonly affected by postural correction.

In an attempt to answer these questions, 17 patients were selected from the Gastro-intestinal Section of the Medical Clinic of the University Hospital. All presented the picture of visceroptosis with defective posture. In age they ranged from 15 to 52 years, 4 being men and 13, women. All had been symptomatic for periods varying from 3 months to 6 years, and in most instances had been subjected to various treatments without relief. The standard régime for each patient consisted of a 3-months' course of postural exercises. Seven visits were made to the clinic during that time for instruction by the doctor, and 20 minutes of exercise twice a day were taken at home. At the termination of the period of training, supervision was discontinued. After 8 months a follow-up examination was made at which time both symptoms and posture were correlated. In practice this schedule can only be approximated.

The exercises used in this study were essentially those of Goldthwait, as described by Cochran, Thomas, and others. They are designed to correct the specific postural defects of the asthenic patient. The extensor muscles of the neck and the dorsal spine are exercised to restore the erect carriage of the head. The chest is expanded and the ribs elevated by breathing exercises. To correct the lumbar lordosis the tone of the gluteal muscles is increased and the pelvis rotated posteriorly. Finally, control of the abdominal muscles is taught until the pot-bellied individual is able to hold the lower half of the abdomen constantly contracted while the upper part remains relaxed. The gross end result of this procedure is to approximate the anterior abdominal

wall to the lower lumbar vertebræ, converting the abdominal cavity into a form suggesting an hour-glass in which the truly pelvic organs are protected from the crowding in of abdominal viscera from above. What subtler changes occur in the patient one cannot say.

At the outset elaborate methods of measurement and postural recording were used. These were given up in preference to a simple estimate of postural correction made by observing the patients as they came and went in the dispensary unaware of the fact that they were being observed. Symptomatic improvement was also estimated.

The results of this study have justified in large measure the favorable reports by those using postural treatment for visceroptosis. Though some patients failed to maintain the degree of relief recorded at the end of treatment, nevertheless certain individuals not only achieved complete relief but maintained it for many months after supervision had ceased. The test was a severe one, moreover, as every effort was made to keep those who were employed at work rather than to include rest, special dieting, and other factors impracticable for a dispensary patient who must keep himself alive in spite of illness.

By considering the relief of individual symptoms one may get a more complete picture of what actually was accomplished. At the outset nausea and abdominal discomfort were unquestionably outstanding, with fatigue, constipation, headache, and vomiting appearing in that order of importance. In no instance did the symptoms fail to respond to treatment to some extent, though the readiness of response varied. Vomiting, though a relatively infrequent symptom, responded to the greatest degree, while the two most prominent complaints, nausea and abdominal discomfort, disappeared to nearly the same extent. Constipation and headache were controlled in about 3 out of 4 cases, while most resistant of all to treatment was the fatigue and lack of stamina so prominent in these cases. This was rather less than half as conspicuous after treatment, but in only a few cases did it clear up entirely. In the main, symptomatic relief ran *pari passu* with postural improvement. There were no outstanding cases of improved posture without relief, or vice versa.

Gastro-intestinal roentgenograms were taken before and after treatment in all but 2 cases. The results confirmed the observations of others that the level of the stomach in particular can be markedly altered by a change in posture. Unquestionably this change also leads to some alteration in the general visceral relations as well, but to a minor degree. Duodenal stasis was

present in 10 of the cases at the outset, but in most cases remained practically unaltered, showing no clear relation to changes in symptoms. In short, it was impossible to link any one finding with the state of health of the patient.

A case typifying a favorable result from postural treatment follows:

H. B., a white male, age 23, presented himself on April 15, 1932, with a chief complaint of chronic nausea and indigestion. He had been well till 6 years before, when, at the age of 17, he began to lose weight, suffered chronic indigestion consisting of nausea after meals, belching, and persistent upper abdominal distress, just short of frank pain. He felt best before meals and would begin to experience an intolerable sense of fullness in the upper abdomen after the first few mouthfuls of food. This would become actual nausea if he persisted in eating. Occasional attacks would occur with exaggeration of all his symptoms, and vomiting would follow, or he induced for relief. At these times headache and dizziness were present and his usual feeling of fatigue would amount to a sense of exhaustion. The past medical history was essentially negative.

Physical examination showed him to be of the typical visceroptotic habitus with the postural defects described as characteristic of this condition. He was rated as "three plus" poor posture on first examination. Aside from these defects and a moderate epigastric tenderness the examination revealed nothing abnormal.

The laboratory reported urine, blood serology, gastric secretion, and blood counts to be normal. It is noteworthy that the patient fainted during the taking of the blood count. A roentgenogram of the gastro-intestinal tract was reported as showing visceroptosis with stasis in the duodenum and a residue of the barium meal still in the stomach at the end of 4 hours.

Treatment was begun on April 25 and continued until Aug. 5, 1932, during which time 7 visits for instruction in the exercises were made. At the end of the period his only complaint was occasional heartburn, and he had gone to work as an electrician, something which he had been physically unable to do for some years. He visited the Section again on March 13, 1933, and stated that he had been free from all symptoms for 5 months, the first time this had occurred in 7 years. Gastro-intestinal roentgen-ray study at that time showed essentially the same conditions as at the first examination save for slight diminution in the duodenal stasis. Final examination was made Sept. 15. He was still symptom-free, working full time, and had complete mastery of good posture. At that time, 13 months after the termination of treatment, he was appraised as showing complete relief of symptoms and complete postural correction.

From these observations it would appear that correction of posture is not only a practical but a fairly lasting method of relieving the symptoms of so-called visceroptosis. In evaluating the likelihood of success in the individual patient, certain factors must be considered. First of all, the intelligence of the patient, for unless he has a fairly clear conception of the end toward which he is working little comes of his efforts. Next in importance is age, for though postural correction is frequently possible in a

coöperative patient of almost any age, flexibility of the skeletal structure, such as is present only in the earlier part of life, is a distinct advantage. Finally, the emotional stability must be taken into account. The majority of these persons are unstable to an extreme, vacillating between hope that a new treatment will relieve them and premature disappointment that relief is not apparent in a fortnight. While several such patients made good recoveries it is difficult to maintain their perseverance through the period of approximately 3 months usually necessary for the relief of symptoms.

From these observations one may draw certain conclusions concerning the applicability of this

form of treatment to the average patient of the class that cannot afford the expensive accessories available only to the few. In the first place, without apparatus and as a result of 7 visits to the doctor, correction of posture may be achieved, and in a fair proportion of cases may be maintained indefinitely. In the second place, postural correction and relief of symptoms have exhibited a close enough association to justify one's viewing them as cause and effect. Finally, though the mechanism by which it is brought about is obscure, the character of the symptoms relieved is strong evidence that the function of the gastrointestinal tract has been restored to normal.

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MUCIN THERAPY IN PEPTIC ULCER*

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The etiology of peptic ulcer, though the subject of much discussion, has not been solved satisfactorily. We are practically in the same position with reference to this subject that we were 30 years ago. As long as the cause of this condition remains obscure, so long will we depend upon local and general measures for the treatment of this disease. Since the first articles by Cruveilhier in the late 1820's and even before that time, the systematic treatment of what we now recognize as peptic ulcer of the stomach and duodenum was largely local and dietetic in character. Samuel Barton, in his lectures at the University of Pennsylvania, 1811 and 1812, recommended a fresh meat and milk diet for pyrosis and water brash. This antedated the recognition of ulcer as an entity by many years. This treatment is still in common use as a milk and high protein diet. In the case of Alexis St. Martin, Beaumont commented on the protective quality of mucin of the gastric mucosa. Kaufmann, American Gastro-enterological Association, 1908, mentioned the absence of mucin in patients suffering from peptic ulcer. The protective quality of mucin depends upon the viscosity as a protective agent, the alkalinity of the mucin in neutralization of acid, and a possible deterrent or sedative effect upon the secretion of hydrochloric acid and pepsin in the stomach. As the result of long continued research on the peptic ulcer problem, Professor Ivy, of North Western University, has been able to secure from the stomach of the pig, an acceptable therapeutic preparation of mucin. In the beginning of the experimental use

of mucin, it sometimes contained in excess a secretagogue substance which increased the secretion of hydrochloric acid instead of decreasing it as was desired. This was mentioned by Rivers and Van Zant, *Journal of the American Medical Association*, April 2, 1932. Since that time this defective quality has been overcome and the odor, which at first was extremely disagreeable, has been very much improved.

An interesting observation, possibly an important one, has been made in the preparation of mucin, that during the summer season there is almost a total absence of mucin from the stomach of the pig. This would lead one to the thought that possibly the seasonal recurrence of peptic ulcer symptoms might be due to disappearance of mucin from the human stomach. I am at present interested in some experimental therapeutics directed toward the stimulation of the mucin function of the gastric mucosa in patients suffering from peptic ulcer.

I began the use of mucin in August, 1931, and since then have used it in the treatment of 30 patients, a number of them intractable cases. We have used it as a part of both the ambulatory and rest cure type of treatment. In only one case did a patient object to the odor of the mucin and that patient has objected to two other types of treatment which I have endeavored to carry out in her case. From our experience, mucin has a definite place in the treatment of peptic ulcer, and certain of the intractable cases have been relieved for a period of two years. Some of these cases have shown a visible crater at the beginning of the treatment which has gradually disappeared during the use of mucin. Every pa-

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tient suffering from peptic ulcer should be treated as an individual personality, in this condition as much as in any other human ailment; infections, temperament, idiosyncrasy, endocrine, and nervous reactions should be reckoned with as a part of the treatment. In other words, if in addition to removal of focal infections, the relief of business and domestic worries, the correction of thyroid, suprarenal, pituitary, and other endocrinopathic disturbances, the balancing of the secretions of digestive enzymes as well as the correction of any vitamin imbalance, before the treatment, we may look for definite improvement or cure in a large percentage of cases placed upon the mucin treatment for peptic ulcer.

This preliminary preparation for the treatment of peptic ulcer, is not meant to detract in any way from the value of the mucin treatment. It is unfair to any patient or any treatment to neglect a comprehensive cleaning up of all such constitutional disturbances as the above mentioned conditions fairly represent before beginning treatment by any plan directed toward healing of peptic ulcer. We have recently treated a series of cases by such preparation plus the intramuscular injections of emetine, also a series by the hypodermic injection of 10 to 15 units per day of insulin, with good results. Such cases as have not been entirely relieved by one of these treatments, have in certain instances, responded to another.

Dr. Fogelson, of Chicago, reported to me on Sept. 1, 1933, the results of collected reports from a number of physicians in no way connected with his organization. His report is substantially as follows:

Clinical data of significance must preferably be obtained from clinicians who are unbiased about mucin therapy; and the type of patient of greatest significance should be those who had not responded to any other types of therapy including surgery. During the last 3 years I have obtained reports on 555 patients who are classified according to the opinions of their own physicians.

Results

Total number of patients	555
Symptom-free	348—62.7%
Improved	114—20.5%
Failures	93—16.8%

In this group of 93 patients failing to respond to mucin therapy there were 32 true failures or recurrences. The remaining 61 were patients who, for various reasons, would not continue the treatment for an adequate period or in whom complicating factors prevented the possibility of obtaining symptomatic relief.

Corrected Results

Total number of patients	494
Symptom-free	348—71.9%
Improved	114—23.0%
Failures	32—5.1%

The group called "intractable" are to me the most significant in that the clinicians treating these patients had not been able to control subjective symptoms by any type of therapy previously used. In addition none of these patients was treated by either Dr. Fogelson or his colleagues. Of further significance is the fact that none of these physicians had previous experience in mucin therapy.

Intractable Ulcer Patients

Total number of patients	226
Symptom-free	137—60.6%
Improved	64—28.2%
Failures and recurrences	26—11.2%

In this group of 25 patients failing to respond to mucin therapy there were 16 true failures or recurrences. The remaining 9 were patients who for various reasons would not continue the treatment for an adequate period or in whom complicating factors prevented the possibility of obtaining symptomatic relief.

Corrected Results

Total number of patients	217
Symptom-free	137—63.1%
Improved	64—29.4%
Failures	16—7.5%

Fogelson says: "In general my own results on approximately 300 additional patients are about the same as those obtained by the questionnaire cooperating physicians.

"From a purely scientific and chemical standpoint, the work done on mucin has been to me and my colleagues most interesting. P. A. Levine has definitely said that mucin varies not only from species to species, but from tissue to tissue. We have proceeded very cautiously and have first devised a satisfactory quantitative determination for mucin. Mucin is defined as a glucoprotein which means that it is simply a large complex molecule of a sugar and protein. In addition, we have learned that mucin is practically resistant to acid-pepsin digestion. To eliminate all other impurities in mucin or mucin-containing secretion, it should, therefore, be digested by an acid-pepsin digest and then knowing that mucin is precipitated by 70 per cent alcohol, it becomes relatively simple to precipitate the mucin from any solution. Chemical examination of this precipitated mucin showed that the sugar percentage as determined by reduction was in practically all cases 37.9 per cent. The

nitrogen figure on this precipitated residue was 7.1. These figures were strikingly consistent in dozens of different types of mucin prepared for clinical use by the manufacturers. Such a test rendered it possible to determine whether Levine was correct in his conclusions that gastric mucin should vary from species to species. Our preliminary results on the dog and human so far suggest that he may be in error, as both the dog and human mucin show after acid-pepsin digestion and 70 per cent alcohol precipitation, a reduction figure of 37.7 and a nitrogen figure of 7.1. The difference is well within experimental error.

"Since a quantitative method for mucin determination was available, mucin secretion in the normal human was observed as contrasted to the ulcer patient. To date a total of approximately 40 humans have been investigated, 16 of whom were normal, and 24 were definite duodenal ulcer patients. These results have not been definitely conclusive, but using 240 c. c. of 7 per cent alcohol as a test meal, results suggested that the healthy normal stomach will show with increased acid-pepsin secretion, an increase of mucin in gastric contents. In other words, the graphs run a parallel course. With increase of free acid and pepsin the mucin also is increased and with a decrease of acid and pepsin the mucin also decreases. In most of the ulcer patients this did not occur. In fact, as the acid and pepsin increased, the mucin graph tended to decrease, not paralleling the other two. It is impossible to say whether this deficiency is relative or absolute as it is no doubt possible that the ulcer patient secretes more gastric juice than the normal control which explains the apparent deficiency. Be

that as it may, the net result is the same in that there is less mucin available at the time it is most needed."

In considering the different treatments which have been inaugurated during the past few years, for some of which enthusiastic advocates have, in some instances, made extravagant claims. (This has, in practically every instance, been done by the manufacturer of the product rather than the research man whose work made the product possible.) We must realize that it is difficult to evaluate the merits of such measures because of the tendency of peptic ulcer to heal and recur, the period of well-being sometimes being prolonged for several years. It has been my experience that the permanence of relief, after healing of peptic ulcer, is largely dependent upon the care which has been used in removing all possible etiologic factors and the patient's willingness to abide by strict dietary regimen over a long period of time as well as his willingness to circumscribe his physical and mental activities to such a degree as will not place too great a strain on his physical powers of recuperation.

In conclusion, I have to state that, in the light of our present information, the use of mucin therapeutically is of considerable value in the treatment of peptic ulcer, especially in certain intractable cases if used in addition to general and dietetic measures which have been firmly established in the treatment of this disease.

It should be preceded and supplemented as well as accompanied by well recognized measures. It has not yet passed the experimental stage.

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END RESULTS OF FRACTURES OF LONG BONES IN CHILDREN*

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It has been known that soft tissue in young children heals with less scarring and with less dysfunction than in the adult. This is also true in injury to bones but is often lost sight of by surgeons treating fractures in children.

Surgeons often make the mistake in children of regarding bones as things separate from soft parts. Bones were originally formed out of soft parts, and there is a definite physiologic relation between the two.

The periosteum is always torn in complete fractures. The periosteum may or may not be torn in the incomplete fracture. There is an

outpouring of blood around the fractured ends of the bone that infiltrates the soft tissue. The blood clots and forms the base for the osteoblasts or bone-producing cells within which actual bone is laid down. At first this mass is soft and can be molded. Later it becomes natural bone as the bone-producing cells mature and become calcified. This is nature's splint. The excess is absorbed until the fractured bone assumes somewhat its previous normal shape. The healing process is generally the same in children as in adults except that the general scheme of bone growth goes on in children along with the healing of the fracture.

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Bone, like all tissue, is being absorbed and replaced. The size of the marrow cavity is increased during growth because of the absorption process. The replacement process carried out beneath the periosteum is greater than this absorption process, otherwise, the bone would not increase in size. The reparative process which also is a replacement process is, therefore, much more active in children. It follows that the healing and reconstruction in fractures in children are more active and carried out more completely than in adults. The normal growth of bone consists not only of increasing length and circumference but also, if necessary, of changing the form. The normal form and shape which bones assume are due to their function. If the form has changed because of fracture, the normal healing and growth process will tend to reform or reshape the fractured bone as near normal as is consistent with the growth process and if the normal function continues and it is a growing bone the reformation or reshaping may be considerable. We may expect, therefore, that this reconstruction is carried out to a greater degree in the younger child. The periosteum is a limiting membrane and is not in itself capable of producing bone. The periosteum in children is tougher, thicker, and more vascular and also

Greenstick fractures apparently do not heal with the reconstruction of bone contour that complete fractures do. It may be because the periosteum incloses the callus which is of much less amount than in complete fractures. Nature must strengthen the bone already curved by the fracture and is unable to restore the convex surface or build up the concave surface which would bring back the normal bone lines. What hemorrhage and callus there are, occur on the convex surface of the bone where the periosteum is torn and would, therefore, produce a great convexity.

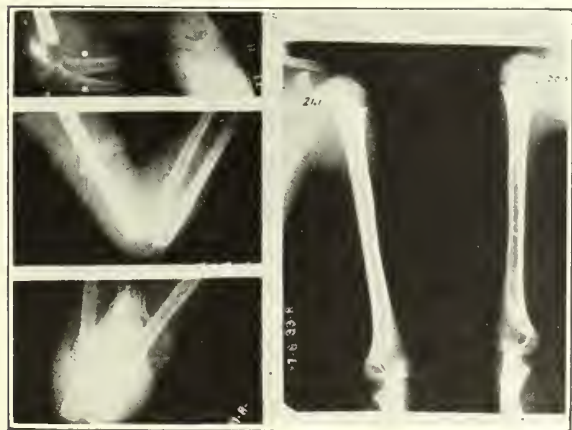


FIG. 1.—Supracondylar fracture of humerus; before reduction; after reduction; and 2 years later, showing 0.6 cm. lengthening.

more easily stripped off the bone. There is practically always a periosteal connection between the fractured ends of bone in children by a bridge of periosteum. There is then new bone laid down which forms the new or reformed bone. With this bridge present it is more certain that the bone is to be reconstructed. In adults this bridge is often missing because the periosteum tears.

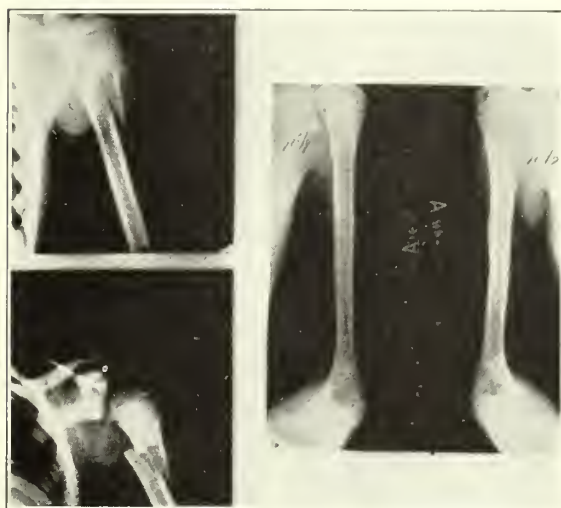


FIG. 2.—Surgical neck of the humerus. Position at time of union and 6 months later, showing reconstruction of shaft with shortening.

It is apparently true in the treatment of fractures of the shaft of bones in children that alignment is the essential thing. Overriding of fragments is compensated to a greater or less degree by a stimulation of growth from the ends depending on the bone fractured. It is apparently greater in the femur. This is natural because the femur increases its length proportionally more than any other bone. Accurate reduction in the fractures of the shaft of long bones in children is not as essential as in adults. This is not true of fractures about the epiphysis. Here accurate reduction is necessary. Any marked change in the axis of the articular surface that would interfere with function should be corrected, if necessary, by open reduction. Axial rotation in fractures of the shaft of bones should always be prevented. In most instances, except if soft tissue between fragments prevents, the rotation can be corrected without operation.

HUMERUS

The most frequent fractures of the humerus in children occur about the lower end. Here

with multiple ossification centers and epiphyseal lines many varieties of fracture occur. Displacements here should be corrected if at all possible. Fortunately, the position of hyperflexion maintains reduction of fragments in their normal position in most instances. This is the position of choice in the treatment of fractures in this region. The application of a plaster cast to maintain this position should be left for the expert. It should never be used by interns or the average person seeing fractures at the elbow. It should not be recommended to undergraduate students. The cast treatment is, therefore, condemned as dangerous in ordinary hands. The position can be maintained with a bandage almost as effectively. The lower articular surface must maintain its normal relation with the shaft and occasionally operation with fixation of fragments is necessary. In the supracondylar fracture, lateral angulation must be corrected. Slight anterior posterior angulation is inconsequential as nature reconstructs.

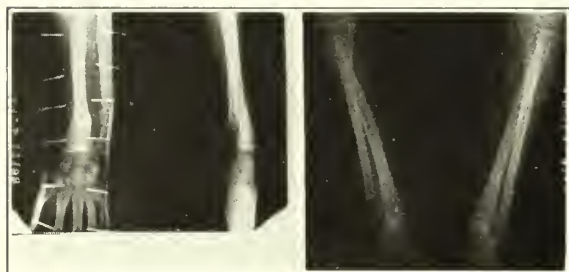


FIG. 3.—Fracture of both bones of forearm; overlapping of radial fragments; showing reconstruction.

Fractures of the upper extremity of the humerus present somewhat the same problems. Here, however, loss of movement through interference with the movement of the humerus on the scapula is compensated by the movements of the scapula. Some of the most amazing feats of nature's work of reconstruction are found in the humerus.

Fractures of the shaft of the humerus will almost invariably get well without deformity or shortening with ordinary conservative treatment. Internal angular or anterior angular splints with a shoulder cap or coaptation splint are used in those fractures of the shaft that are in the lower third. Those above this point are treated with a shoulder cap, a pad in the axilla, a circular bandage to fix the arm to the chest, and a sling.

There were 10 fractures of the humerus in this series. Four have lengthened. In 3 the length is the same, in spite of shortening at the time of union. Three are still shorter and one of these was of the diacondylar variety. Diacondylar fractures were present and 2 of the bones had lengthening.

BONES OF THE FOREARM

The problems of the upper extremities of these bones are those of fractures about the elbow.

The fractures of the lower end, particularly of the radius, we concern ourselves mainly with the articular surface. If there is tilting, accurate reduction should be accomplished. If there is no tilting, a good result can be expected.

Fractures of the shaft of both bones are often greenstick in type; these fractures must, without fail, be slightly overcorrected to prevent an increase of the deformity during the process of healing. Complete fractures may unite with no dysfunction. Accurate reduction is usually necessary for complete return of function. Pronation and supination are most apt to be disturbed.

There were 6 cases of fracture of both bones of the forearm; 4 of which lengthened; 2 were the same length; and none remained shorter.

CLAVICLE

The simplest of dressings without plaster or splints is all that is necessary in these fractures. A simple posterior figure-8 bandage is used with perfect satisfaction. These fractures unite with deformity but after a period of time, 1 to 2 years, the deformity usually disappears because of growth stimulation and reconstruction, and lengthening of the bone is possible.

One case (fig. 4) had growth stimulation to the extent of 1.5 cm. The other case, the time interval is too short to pass judgment.

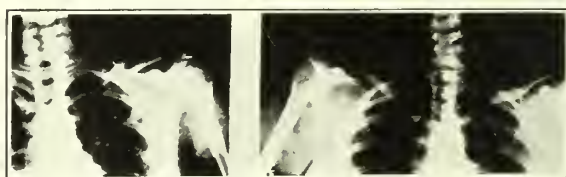


FIG. 4.—Fracture of clavicle, 2 cm. overlapping at time of union; 0.5 cm. shortening 2 years later. Growth stimulation, 1.5 cm.

FEMUR

Axial rotation is of much more serious import as regards end result than overlapping. Angulation is to be avoided. Reconstruction is more marked at the lower end of the bone.

Lengthening occurs in about 50 per cent of fractures of the shaft of the femur. No amount of traction will bring about end-to-end apposition in those cases that are seen a week or more after injury and if there is a shortening of 2 or more inches, open reduction is advisable. I have seen growth stimulation occur as much as 2 inches.

Skeletal traction may be reserved for the case in which skin traction is contraindicated because of ulceration. The infant and young child up to about 60 pounds in weight are treated by the

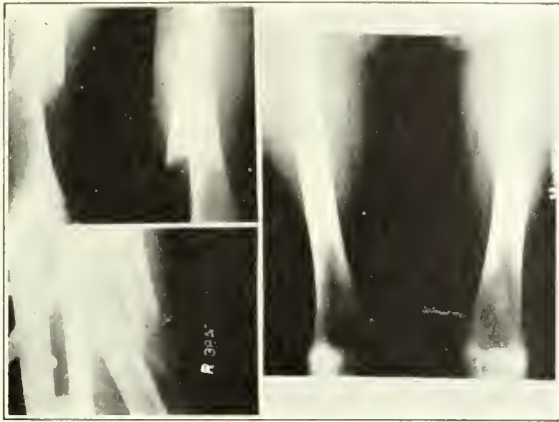


FIG. 5.—Fracture of the shaft of the right femur showing position at the time of union with 1.5 cm. shortening. Eighteen months later, showing reconstruction and 0.5 cm. lengthening.

vertical suspension method of Bryant. The older children may be treated either by the Russel extension method or the Thomas splint. It really makes little difference as the results are good in either instance.

Of 16 cases of fracture of the shaft of the femur 8 or 50 per cent showed lengthening in spite of in one case 2 cm. overlapping.

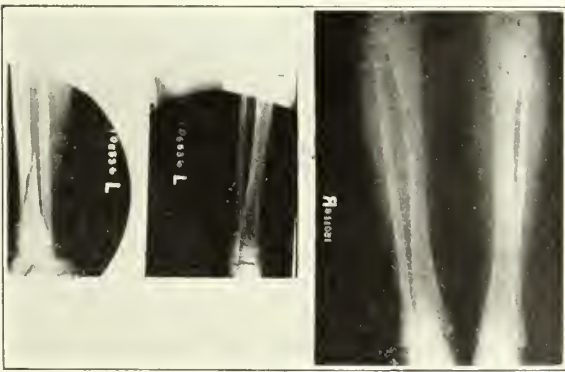


FIG. 6.—Fracture of shaft of both bones of the leg; 0.3 cm. lengthening at the end of a year.

TIBIA AND FIBULA

Fusion here in both bones is of no consequence, whereas axial rotation is serious as regards weight bearing, traumatic strain. Flat foot or pronated foot is apt to develop. Angulation mesially or posteriorly becomes a very serious problem. Angulation anteriorly or laterally is also serious but function is fairly good. A fracture box properly padded with a soft pillow is used for these fractures after reduction. A cast

which is immediately split is applied as soon as acute swelling has subsided.

Of 3 cases of fracture of both bones of leg, 2 had lengthened and one remained short. If plating is done the plate should be removed after it has served its purpose. Its purpose has ended as soon as there is union. In Fig. 7 the plate was allowed to remain for 5 years with the resulting 1.3 cm. lengthening.



FIG. 7.—Fracture of the left tibia. Bone plate applied. Five years later, 1.3 cm. lengthening.

CONCLUSIONS

(1) Lengthening may occur in any long bone after fracture.

(2) Stimulation of growth is to be expected in fractures of the shaft of bones and often occurs after fractures involving epiphysis.

(3) The earlier movement and return to normal function, the more reconstruction and re-shaping of bone.

(4) The younger the child the greater the degree of reconstruction.

(5) Skeletal traction has a distinct but limited field in the treatment of fractures of shaft of long bones in children.

(6) Operative fixation is rarely necessary and should be reserved for: (1) Those fractures about joints in which absolute alignment of joint surface is essential for the return of function;

(2) fractures of the shaft of bones that are seen late (one or 2 weeks) with overriding of 2 or more inches; (3) fractures of both bones of the forearm to prevent fusion.

Medical Arts Building.

ABSTRACT OF DISCUSSION

W. E. DELANEY, JR. (Williamsport, Pa.): I wish to show several slides of fractures which will perhaps express my views best.

Slide 1 is that of an infant, breast fed, delivered spontaneously with vertex presentation, age 5 weeks, who after being nursed was placed in his crib. About one hour later the mother heard the infant crying loudly. She found him with his arm bent under the body. After arranging the infant in bed she noticed that he was unable to, or at least did not, move his arm. After some little time she called the physician who had delivered the baby and who stated that there was at no time any previous trouble with the arm. Roentgenograms showed a complete oblique fracture of the middle third of the humerus. The arm was strapped to the chest with adhesive plaster and after 3 weeks no more immobilization was sought. Six weeks after the accident and 3 weeks after the retention dressing was removed, there was evidence of good union, the position was good, there was no deformity nor shortening, and the infant has normal use of his arm.

Slide 2 is of a boy, age 7 years, with a transverse supracondylar fracture of the humerus. The fracture was reduced under local anesthesia. One per cent novocain injected into the hematoma in children, if much manipulation is necessary, is preferred and I have used it in about 200 cases in children and adults with uniformly satisfactory results. The forearm was placed in a flexed, pronated position with a sling around the wrist. It was impossible to get an anteroposterior view but the fragment was in excellent position as determined by the landmarks of the elbow. No cast was applied, and the end result was a perfectly functioning elbow. We insisted on all the movements possible at the shoulder and wrist. If the joints proximal and distal to a fracture near or into a joint are moved vigorously many times a day, there need be no fear of stiffness of the involved joint.

(Slide 3.) A transverse fracture of the middle third of the humerus in a boy, age 10; and after reduction on a Boehler humerus frame with traction. After 4 weeks on the frame an internal angular splint was applied. The period of immobilization in children should not be long as there may be interference with bone growth. Return of function in the young is more important than that in adults as the conformity and growth of bone are dependent on use and function of the member.

(Slide 4.) A boy, age 3, with a fracture through the middle third of the radius and dislocation of the proximal head of the radius. An unpadded plaster cast was applied from the wrist to the upper arm. Six weeks after the accident there was no impairment of function of the elbow, forearm, or wrist following removal of the cast and union in good position was accomplished.

(Slide 5.) A boy, age 9, had fractures of the radius and ulna one inch above the wrist. Reduction was done under novocain into the hematoma. It is very important in fractures about the joints that axial displacements be carefully replaced. One never encounters disturbances in the growth of bone if fractures around the epiphysis are properly reduced. The boy had per-

fect function of the wrist following removal of the cast. He was instructed, however, immediately following reduction to move the fingers, wrist, elbow, and shoulder on the affected side in every direction possible, and to repeat this exercise many times a day.

(Slide 6.) A girl, age 9, with compound fractures of the middle thirds of the radius and ulna. All compound wounds should be excised and closed tight, with no buried suture material. A few weeks after reduction, she moved her shoulder, wrist, and fingers in regular exercises and the result was a good functioning forearm with no deformity. Movements of the fractured member are especially important as the blood supply of bone is largely dependent on that received at the muscle attachments, and increased function means increased blood supply to the fractured bone.

(Slide 7.) A boy, age 4, sustained a compound oblique fracture of the middle third of the femur. The vertical suspension method as described by Bryant was used at first. This was ineffective. We were not so interested in overcoming shortening, but it was not possible to bring the fragments even into fair position because of interposed soft parts. Though tempted to use skeletal traction, I did not. The youngest patient on whom I have employed skeletal traction with a Steinman pin was a boy, age 10, with a comminuted fracture of the femur. Reduction was obtained by the open method 2 weeks after the accident. Rarely is open reduction necessary in fractures in children. In one child I was forced to resort to it.

(Slide 8.) A boy, age 6, with a spiral fracture of the femur, showing one inch shortening. One could press the fragments together and obtain crepitus, so a coaptation splint was applied and extension continued a few weeks until there was good callus. Then a cast was applied.

(Slide 9.) Three years after the accident, there is no shortening of the thigh, which is an indication that nature has actually produced one inch lengthening in the fractured bone. The bones of young children are capable of remarkable regenerative and reparative powers.

HARVEY C. MASLAND (Philadelphia): Children respond more readily to the reduction of the deformity, and also exhibit more prompt bone union than do adults.

To regard the reduction as an emergency proposition is the first essential for a good end result; the reduction must restore the parts to practically normal relation. Finally, the treatment must interfere to the least possible degree with tissue vitality, with tissue cell activity, and with the normal functions of the parts which act to stimulate cell activity.

The chaotic differences of opinion among surgeons as to the best method of treatment mean little, for in efficient hands they all give about the same results. The reason is that all these methods are of limited efficiency based as they are upon the primitive mechanics inherited from the past. No matter what the scholarship and the skill of a surgeon, he can accomplish nothing beyond the capacity of the tools with which he works. With splints such as I have been using for some years, which give a purely nonoperative distention of the bone between two supports upon the skeletal structures just above and just below the fractured bone, a concentrated power is delivered to the displaced bone such as I have not seen equaled by the usual methods.

Whatever the angulation and the overlap, the bones can be brought end-to-end in good alignment. As the splint stabilizes the bone before any reduction is attempted, an anesthetic is rarely needed. The parts are

not subjected to manipulations that add further injury to the soft tissues. The fractured area is immobilized but the adjacent joints, either immediately or after a short period of time, are subject to voluntary movement. In no uncomplicated limb fracture is confinement to bed an absolute necessity. The import of this statement in fractures of the femur in the aged can be appreciated. In fractures into the joints, there is provision for linear extension, and for the correction and control of lateral displacements. With these, either immobilization or voluntary movement is available. Pronation and supination of the forearm are possible. These movements are within and controlled by the splint. A considerable amount of joint activity is present upon the removal of the splint. Physical therapy is not required. Subsequent movements suffice.

To question established convictions about fracture treatment is as desperate as to attack age old religious beliefs. Nevertheless, when the profession realizes the significance of these statements, and acquires a good working knowledge of the application of these splints, fracture restoration will become an accurate achievement of our art.

J. TORRANCE RUGH (Philadelphia): There is one angle of the treatment of fractures in children that has not been brought out. It has been brought to my attention on a number of occasions, however, and I was very severely criticized a few years ago by a surgeon because I reduced the fracture of a femur in a child by an open operation. This child was age 5 or 6. There was over one inch shortening and overlapping. A good result was secured by reduction and threatened medical litigation was avoided. Overstimulation of whatever character it may be may cause bone to grow, and if that stimulation interferes with the growing centers there may be shortening. No one can predicate if a bone will be longer or shorter after a fracture, just as in tuberculosis or other inflammatory conditions in the shaft or in the end of the bone. In some instances there is lengthening; in others, shortening. It is the best possible surgery to see that the fragments of bone are properly aligned, then if overgrowth of the bone takes place, no charge of malpractice can be brought against the surgeon. In these days, that is an important point in the care of fractures.

MEDICAL SOCIETIES, DE LUXE

The headquarters office recently received a letter from the secretary of one of our active county societies in which it was stated that he would like our opinion concerning the formation of "academies" of medicine in communities in which there already exists a going county society. He went on to say that it was his understanding that the proposed academy would bring to the community, each month, a nationally known physician to address the members. It seems that this community already has, in addition to the county society, a physicians' luncheon club and another club, membership in which seems to be of the limited variety; in fact, there seems to be criticism to the effect that its members hold themselves aloof from the garden variety of practitioners. This results in many of the local doctors feeling themselves aggrieved over the situation.

There is nothing new in the complaint which we have at hand. For many years we have heard similar complaints from various sections of Indiana, usually from the larger cities. We recall an instance in which it was reported that members of a proposed exclusive medical society were required to appear at the session in at least semiformal attire. (We do not know that this rule was carried out to the letter.) We have had a little experience in so-called exclusive organizations; years ago in our community we were a party to the organization of what was at first termed a study club, meeting weekly. From a membership of three it grew to almost a score in a very short time. Election to membership was had only after careful consideration and in a very short time the word was bruited about that this was a bunch of "high brows." From that moment the organization, now called an academy of medicine, began to wane, and in a few months it had disappeared. That we have too many medical societies is fast becoming an evident fact; what with membership in one's county society, a staff membership in one or more hospitals, and with membership in one or more medical societies one finds himself put to it even to attend them all, to say nothing of taking an active interest therein.

In the letter referred to, the matter of having a nationally known speaker each month seems to be the goal of the proposed academy; why not have this group of speakers before the county society? During the past year one of our larger societies tried this plan, bringing some six or eight of the better known men of the country before it; the result was that attendance at once leaped to new heights and more interest was manifested than ever before in the history of the society. At the annual meeting, for example, the attendance was something like 95 per cent of the entire membership.

Medical men are but human, and it is very natural that those not invited to sign up with these new organizations of the exclusive type soon lose interest in the county society. We have often referred to the fact that the county society, after all, is the backbone of organized medicine. No matter how many other medical organizations there may be in a county, if the county society is not functioning there will be a corresponding degree of lack of interest in the other organizations.

Again, too often the fault lies with the active heads, or those that should be active, of these county societies. We have seen county societies carry on exceedingly well for a period of years, then suddenly take a slump; even a casual analysis of the situation will show that the reason is a failure on the part of the officers.

There are instances, of course, when a special society might seem to be advisable in some of the larger communities, to fill a special need; for example, if a group of medical men wish to pursue some of the less popular phases of medicine, say the philosophies of the profession, it might be well for them to organize into a special group, but for the most of us, if we will but give our entire attention to the county society there will soon be no need for a special society; indeed, there will be no demand for one.

We are for the county medical society first, last, and all the time; again we say, if this society is properly officered there will be little occasion for competing societies.—Editorial, *J. Indiana M. A.*, March, 1934.

EDITORIALS

MEETING OF BOARD OF TRUSTEES AT SAYRE

All roads led to Sayre, May 9, 1934, when the Board of Trustees of our State Medical Society held their stated meeting at Sayre by special invitation of President Donald Guthrie. Those who arrived early on the scene were afforded an opportunity to see Dr. Guthrie operate previous to the meeting of the Board. The session of the Trustees was held in the Board of Directors' room of the Guthrie Clinic. Luncheon was served in the palatial home of Dr. and Mrs. Guthrie. The guests assembled in the most enticing and attractive library in the Guthrie home, and the capacious dining room easily took care of the 16 guests. Dr. and Mrs. Guthrie are a most charming host and hostess.

IN REGARD TO PENNSYLVANIA REGISTRATION

At the meeting of the State Board of Medical Education and Licensure of the Commonwealth of Pennsylvania held May 10, 1934, the question was discussed whether a physician licensed in Pennsylvania but who has not paid his registration fee for one or two years past is legally qualified to sign birth and death certificates.

The State Board referred the matter to Dr. Theodore B. Appel, secretary of health. Dr. Appel replied stating that in his opinion the amendment to the Medical Practice Act, namely, Act. No. 185, Session of 1929, of the State Legislature, makes it the duty of all persons who expect to practice medicine in Pennsylvania to pay a yearly registration fee and provides a penalty for failure so to do, which very definitely indicates that any unregistered physician who signs a birth and death certificate and practices medicine is liable to prosecution.

In view of the above we would urge all physicians in the Commonwealth who have not registered as required by the Act to bear in mind this additional situation to which possibly they have given no thought.

CONCERNING BIRTH CERTIFICATES

The Department of Vital Statistics at Harrisburg is desirous of calling attention of the medical profession of Pennsylvania to the fact that

there is a State Law which requires that all children born out of wedlock must take and be known by the name of the mother. The registers of Vital Statistics in the different communities are still receiving a considerable number of certificates where the child has been given the name of the supposed father. We say "supposed" because the physician invariably takes the word of the mother as to her statement who is the father of her child. There are many instances where the mother does not know who is the father of her child. We are requesting our members to coöperate with the State Department of Health in this matter.

RIGHT OF PHYSICIAN TO EXAMINE ALLEGED DRUNKEN DRIVER

Judge Norman T. Boose, of Somerset County, Pa., substituting in the court at Media, Pa., March 29, 1934, ruled that a physician has no right to examine an individual for alleged drunken driving unless the driver gives consent.

The case in question was a caddy master at a local country club who was arrested last December on the charge of operating an automobile while intoxicated, and who was pronounced intoxicated by a local physician. At the trial the physician who made the examination was called to testify. The attorney for the defendant objected because his client's consent to the examination had not been obtained. The judge sustained the objection and issued the following ruling:

"No doctor has the right to examine any man for intoxication, unless the consent of the man is asked and obtained, and when an examination is made without the driver's consent the testimony of the physician is not admissible as evidence, for it is not a voluntary examination."

Notwithstanding the ruling of the judge, considered unusual in local history, the jury gave a verdict of guilty of operating a car while intoxicated. Sentence was deferred.

INSTRUCTIONS AFTER EXTRACTIONS

It is interesting to read some of the literature placed in the hands of the lay public, by various devices, on the part of the manufacturing chemist.

We recently had the opportunity of reading a list of "instructions after extractions," that is being distributed by dentists. The manufacturer of the product supplies the dentist free of charge with the printed slips, at the bottom of which appears the name and address of the dentist. This latter procedure of course appeals to the dentist, and he feels compensated in the matter. We wonder if the dentist ever stops to think how he is being used as part of a gigantic scheme of free advertising.

Too many of the medical profession are equally guilty of this offense. The manufacturing chemist states that the doctor is their best advertiser. The detail man leaves samples and literature with the doctor. The doctor who is thoughtless, careless, or indifferent gives the sample "as is" to the patient. If relief is obtained the patient does not return to the doctor, but takes the container to a drug store and obtains another supply, *ad in finitum*, and passes on the "good news" to the neighbors. If all the samples have been distributed, such a physician is apt to hand out any pamphlet pertaining to the preparation he may have on the desk. Physicians who follow this procedure deserve to be condemned.

Instructions to the laity should be fool proof. We wonder sometimes how the lay public interpret instructions. In the pamphlet under discussion the first paragraph is as follows. "Use ——— mixed with equal parts of hot water every two or three hours for the first day. Do not swish the liquid back and forth but let it lie still over the spot where the tooth or teeth have been extracted." Then follows, "After the first day ——— may be used diluted the same way but it should be forced to flow up and back by means of the tongue and cheeks." "There's a dorsey for you," as we were wont to say when we were youngsters. This paragraph on instruction appears about as lucid as a problem in Euclid.

The closing paragraph on the slip is "Many patients find it very agreeable to pour a slight quantity of ——— in the water in which they keep their plates each night. It prevents musty tastes and keeps the plate approximately sterile." We like the statement "approximately sterile"!

May we urge the medical profession to discontinue their unfortunate practice in acting as an advertising medium for the manufacturing chemist. The *United States Pharmacopæia*, *The National Formulary*, and *New and Non-Official Remedies* (issued by the A. M. A.), will afford the legitimate therapeutic needs of any physician.

GEORGE C. YEAGER, M.D., ELECTED TRUSTEE AND COUNCILOR

At the meeting of the Board of Trustees of The Medical Society of the State of Pennsylvania held at Sayre, May 9, 1934, Dr. George C. Yeager, of Philadelphia, was elected trustee and councilor for the First Councilor District to fill the unexpired term of the late Dr. George A. Knowles.

Dr. Yeager was graduated from the Jefferson Medical College in 1899, and upon completion of his internship at Blockley, began practice in Philadelphia. He eagerly acquired an interest in the activities of organized medicine when laboring shoulder to shoulder with the stalwarts in the vineyard of the old Kensington Branch of the local county medical society; one of whom was his uncle, the late Dr. A. H. Hulshizer, for some time a member of the Medical Council of the Commonwealth of Pennsylvania.

Dr. Yeager has served faithfully his county society on the Board of Directors and various committees, and was chairman of the Committee on General Arrangements for the annual session of the State Medical Society held at Philadelphia, October, 1934; at this convention he was elected first vice president of the State Society.

He has served for sometime in the House of Delegates of the State Society, in which he demonstrated his sterling worth. Dr. Yeager is preëminently fitted for the recent honor bestowed upon him.

Chairman Edgar S. Buyers of the Board of Trustees appointed Dr. Yeager chairman of the Publication Committee.

MELVIN J. LOCKE, M.D.

Melvin J. Locke died at his home in Bellefonte, April 14, 1934, aged 66, after an illness of several months.

Dr. Locke was born at Dixon, Ill., May 26, 1867, a son of Mr. and Mrs. William Buckingham Locke. When 12 years of age he left his Illinois home and moved to Philadelphia to live with an aunt in which city he was educated in the public schools. He was graduated from the Hahnemann Medical College and Hospital, Philadelphia, in 1891. Showing an early aptitude for surgery, he associated himself with the late Dr. Carl Vischer, of Philadelphia, who at that time was one of Philadelphia's distinguished surgeons. Graduate work was done in New York and Baltimore. In 1895 he began practice in Bellefonte. At that time Bellefonte had no hospital, but in 1902 the Bellefonte Hospital was chartered and several years later Dr. Locke was appointed one of the members of the staff. He

quickly demonstrated his surgical ability and won the confidence of his professional confrères and the community. In due time he was made surgeon-in-chief of the hospital which appointment he maintained through the intervening years. He also served as consulting surgeon to the Lock Haven Hospital.

In 1912 he was admitted to Fellowship in the American College of Surgeons. He was elected school director in Bellefonte in 1911 and several years later was elected president of the board which position he continued until the time of his death.

In 1891 Dr. Locke was married to Miss Blanche Kipe, of Philadelphia, by which union there were four children, all of whom survive, one being Dr. LeRoy D. Locke, Bellefonte. Mrs. Locke died on Jan. 19, 1920. Dr. Locke's second wife, Miss Mary Alexander, of Big Run, Franklin County, Pa., a graduate nurse of the Bellefonte Hospital, also survives. Dr. Locke's father, aged 94, is still living.

Dr. Locke was quite interested in the activities of his community, more especially that pertaining to the school board.

Dr. Locke was endowed with the qualifications necessary to make not only a human, sympathetic doctor, but he was also blessed with the devotion, consideration, dependability, and culture which automatically result in the development of a host of friends. These characteristics were no doubt responsible for the large clientele which steadfastly clung to him, and which he enjoyed to the time of his death.

Not only was he well equipped for general practice, but well trained and experienced in general surgery, the result of a long attentive service in the hospitals with which he was associated as well as in private practice.

WILLIAM HENRY WELCH, M.D.

The very distinguished William Henry Welch, M.D., LL.D., Sc.D., of Baltimore, died in the hospital of his beloved Johns Hopkins University, April 30, 1934, aged 84.

He was born in Norfolk, Conn., April 8, 1850; was graduated from Yale (A.B.) in 1870; and in 1875 received the degree of M.D., from the College of Physicians and Surgeons (Columbia University), New York City.

He was professor of pathological anatomy and general pathology, Bellevue Hospital Medical College, 1879 to 1884, and in the latter year was appointed Baxley professor of pathology, Johns Hopkins University Medical School, serving continuously until 1931, when he was made emeritus. In addition he served as dean from 1893 to 1898.

From 1916 to 1926 he was director of the Johns Hopkins School of Health and Public Hygiene; and in 1926 was made professor of the history of medicine. He was the author of several textbooks.

In 1930, at the celebration of his eightieth birthday, President Herbert Hoover eulogized him, paying tribute to his accomplishments and achievements, and extolled the \$1,850,000 William H. Welch Fund for Clinical Education and Research, and the \$750,000 William H. Welch Library, both of these being at the Johns Hopkins University Medical School.

Dr. Welch was honored with degrees by, and membership in, numerous universities and medical and scientific societies in America and foreign countries. He was president of the A. M. M., 1910 to 1911.

It is impossible to pay proper tribute and homage in writing or in speech to this great pathologist, author, teacher, savant, and gentleman of the old school. *Requiescat in pace.*

PENNSYLVANIA CONGRESS OF PARENTS AND TEACHERS

The Pennsylvania Congress of Parents and Teachers has agreed to a very wonderful extent of coöperation with the Emergency Child Health Committee of the Commonwealth of Pennsylvania. Dr. Samuel McC. Hamill, chairman of the Emergency Child Health Committee, is well pleased with the responses he has received to his letter sent to the county chairmen describing this coöperation on the part of the Pennsylvania Congress of Parents and Teachers. He is more than pleased with the full coöperation of the Pennsylvania Congress of Parents and Teachers since the activities of the Emergency Child Health Committee were instituted.

As the Summer Round-up of the Pennsylvania Congress of Parents and Teachers (which includes health examinations of all children ready to enter school next Fall, and attempt to have all defects corrected) is approaching it was deemed advisable that some plan of coöperation should be established by which it would be possible to avoid duplication of effort. The Congress has agreed to use the examination blanks of the Emergency Child Health Committee to record their findings and to accept examinations which have already been made by the committee, extracting from these examination forms the information they require for report to their national headquarters. This will necessitate the coöperation of the county committees to the extent of granting permission to copy from the examinations the data required for their own forms. The Congress has also instructed the chairmen of their activities in each county or community to confer with the chairmen of the Emergency Child Health Committees so that definite coöperation effort will be established. They have also agreed, in response to a request of the Committee, which is extremely important and shows their hearty coöperation, to make an investigation of all the families having children ready to enter school to determine their capacity to pay for their Round-up examinations, and should it be found that they are able to pay, the children will be referred to their family physician and given

one of the examination forms of the committee on which the findings may be recorded. Heretofore, the Summer Round-up examinations have been made without charge for all classes of children. As the Congress is most eager to establish the principle of having persons who can afford to pay referred to their family physician, they have suggested that a slightly lower rate than the average physician's charge (a reduction of 25 or 50 cents) be established for these Summer Round-up examinations as an inducement to these persons to take advantage of the opportunity.

As this is such an extraordinary advance from the position that the Congress has taken in the past it would seem a very desirable procedure for the State Society to promote. As this procedure is much in line with the effort the medical profession has been striving for, namely, the elimination of free services to persons who can afford to pay, it is hoped that the county committees of the Emergency Child Health Committee will cooperate to the fullest possible extent. The cooperation of the component county medical societies should be promptly obtained inasmuch as the examinations are now under way and it is extremely important that this matter be settled at the earliest possible moment.

Dr. Hamill urgently requests wide publicity of this situation as it establishes a principle the medical profession has been striving after for some years.

The following is a copy of the letter sent to the Summer Round-up chairmen of the Pennsylvania Congress of Parents and Teachers by Dr. Mary Riggs Noble.

*Pennsylvania Congress of Parents and Teachers
April, 1934*

Dear Summer Round-up Chairman:

As you know, the Emergency Child Health Committee is now functioning in most of the counties of the State in which the Summer Round-ups are planned, and all organizations in every county, as well as our own, are a part of this Committee. It is, therefore, important that the Summer Round-up examinations be given in conjunction with the Emergency Child Health Committee examinations. To this end Dr. Noble and I are issuing the following instructions:

1. That all Summer Round-up examinations be made on the blanks used by the Emergency Child Health Committee. These are procurable from the Medical Chairmen of the Emergency Child Health Committee. (Here name of County Chairman was inserted.)

2. After the examination the necessary information is to be copied on the Summer Round-up blank from the Emergency Child Health Committee blank so credit will be given for Summer Round-up work.

3. In those cases where it is found that an examination has recently been made by the Emergency Child Health Committee, *do not have another examination made*, but copy the information on the Summer Round-up blank. (It would be a foolish waste of a busy physician's time to make a second examination where a thorough examination has already been made.) Concentrate, in such cases, on seeing that the defects noted are cleared up if possible.

4. When interviewing parents for the Summer Round-up, urge those whom your workers believe can afford to pay for the ordinary medical services to take the State blank of the Emergency Child Health Committee, which you will furnish them, to their family physician and pay him for making the examination as they would for any other service; requesting that the

blank be returned to you so that information can be copied on the National Parent-Teacher Association blank. It is unfair to ask physicians who are giving so much free service to give this important service free to people who can afford to pay for it. It is part of your duty to educate parents to the vital need of this examination for their children.

Reports are coming in from some counties that the work of the Emergency Child Health Committee has roused interest in the health examination and that the prospects of the Summer Round-up this year are better than ever before. By taking advantage of this aroused interest, the Parent-Teacher Association should secure the largest number of examinations of children entering school than it has ever had in Pennsylvania.

With best wishes for your success and thanks for your cooperation, we are

Very sincerely yours,

DR. MARY RIGGS NOBLE,
MRS. WALTER E. GREENWOOD.

COMMENTS AND EXCERPTS

Science and Research

In the opinion of Dr. H. B. Fantham, biologist of McGill University, Montreal, the tremendous literary output of Charles Dickens, his vigor, energy, persistence, and sympathy were due to good balance between his pituitary, adrenal, and thyroid glands. To quote Dr. Fantham: "The influence on Charles Dickens of other glands of internal secretion such as the thymus, the gonads, and possibly the pineal, is not easy of estimation from the data available." Dr. Fantham based his diagnosis on records of Dickens' life, habits, personality, descriptions of his physical appearance, and his portraits.

Drs. Maurice Brodie and Arthur R. Elvidge, of New York University and Bellevue Medical School and McGill University, Montreal, have obtained evidence that poliomyelitis enters the body through the olfactory nerve. These investigators discovered that if the olfactory nerve is cut, poliomyelitis fails to develop even after the causative virus of the disease has been placed inside the nostrils of a susceptible monkey. Drs. Brodie and Elvidge found that monkeys developed poliomyelitis if the virus was placed inside the nose or swabbed on the membranes lining the nostrils. The olfactory nerve of these animals shows the presence of the virus, suggesting that this is the route of the virus to the brain. If these investigators cut the olfactory nerve, the virus apparently could not find its way to the brain, because susceptible monkeys with the olfactory nerve cut remained free from poliomyelitis.

Prof. J. P. C. Southall, of Columbia University, has expressed the opinion that individuals afflicted with exceedingly poor eyesight may sometimes be helped by the new contact eyeglasses. The improved form of contact eyeglasses is a thin shell of glass ground and polished inside and out and inserted under the eyelid over the exposed part of the eyeball. It is practically invisible, turns freely with the eye, and is held in place by the secretions of the eye. The total weight is less than $\frac{1}{50}$ ounce. The principle of contact eyeglasses is that they substitute the almost perfect glass surface for the front of the cornea which is often so irregular that distinct vision is out of the question.

According to *Science News Letter*, insidious carbon monoxide gas seeping from engines into automobiles

may be the cause of many unexplained accidents. In 1933, there were 58,900 unexplained automobile accidents in which cars driven off the roadway for no apparent reason killed 3260 persons and injured 53,240. It was concluded from tests at Hartford, Conn., conducted in cooperation with the Connecticut Motor Vehicle Department and the Department of Health, that fully 7 per cent of motor vehicles when in operation contain enough carbon monoxide to cause the collapse of occupants. There was probability of serious accidents if drivers were exposed to these dangerous atmospheres for 4 or more hours. At least 60 per cent of the automobiles tested contained measurable quantities of the gas when in operation. The first symptoms of carbon monoxide poisoning, include headache, dizziness, smarting eyes, drowsiness, nausea, and a slowing down of mental processes, and may be partly responsible for some of many accidents attributed annually to poor driving judgment.

Evidence that the vital cortex of the adrenal gland may help the body resist invading disease germs was presented to the American Society of Zoologists by Ernest W. Blanchard, of Bryn Mawr College. Dr. Blanchard found that if both adrenal glands were removed from animals, there was a drop in the amount of opsonin in their blood. Injections of an active extract of adrenal cortex brought the opsonin content of these animals back to normal and kept it at the normal level. Large injections of cortical extract increased the opsonin content above the normal level in those animals from which the adrenal glands had not been removed.

Dr. Gavin Miller, of Montreal, has reported to the Canadian Medical Association, his experience with a new anesthetic which is injected directly into the blood and which may rival ether as an anesthetic in certain operations. The name of the new anesthetic is evipan, and it was produced by a German pharmaceutical manufacturer. It has been used extensively in Germany and England and in more than 20,000 instances in which it was used as the anesthetic only one death was attributed to its use. The anesthetic, injected into a vein in the arm, produces a deep, normal sleep within 30 seconds. After the operation, the patient awakens easily and gradually without any unpleasant aftereffects.

MEDICAL ECONOMICS

Hospitalization Insurance Again

The very aggressive movement on the part of the proponents of the various schemes for the insurance of hospital costs for the sick again engages our attention. The very latest scheme emphasizes the fact that the insurance covers only the cost of the bed and board in the hospital and does not affect the physician or surgeon except insofar as it releases for the patient money that he can use for the payment of his medical attendant. It would be interesting to speculate on the developments, in case the patient refused point blank to pay the doctor for any or all services—and also as to the developments should the doctor refuse to attend the next patient until such a situation had been clarified. Dr. Temple Fay, Philadelphia, in a recent number of the *Bulletin of the American Medical Association* has analyzed at length just what constitutes a ward patient and a careful reading of this article would be very instructive to all. While we admit the justice of every physician's right to dispense his services either gratuitously or for such remuneration as is satisfactory to him, we cannot but feel that he is likely to have the

wool pulled over his eyes in these hospital schemes and that eventually he will find that he has fostered it not sponsored something diametrically opposite to what he thought he had when first presented to him. Those physicians who have in the past displayed a reluctance to handle ward or private cases in the hospital, for any reason whatsoever, have usually come off second best, in such controversies, something worth bearing in mind. Quite a number of hospitals are now being importuned to accept these insurance schemes—and they are being seriously discussed by the management without bothering to take the medical staffs into confidence. They are likely to be presented to the staffs in a crystallized form, on a take it or leave it basis—with the usual result when things are so presented. A survey of the physicians in this area shows the great majority not to be in favor of such schemes, and of the remainder a great many are uninformed, leaving only a corporal's guard displaying a consuming enthusiasm for them. Indifference and inertia have been responsible for a great many of our grievances.

From the point of view of the hospitals, it might be mentioned also that the proponents of these schemes are men without insurance experience, and that insurance companies of established reputation are extremely leery of having anything to do with them. Agreements entered into by corporations still have to be acknowledged, and it is within the range of possibility that after a year or so such institutions may find themselves in a most embarrassing predicament. Insurance schemes still come within the laws not only governing insurance, but the common law controlling finance.—*Editorial, Weekly Roster and Medical Digest, April 28, 1934.*

Comparative Medical Care

The number of physicians' calls to sick working people was cut by one-sixth during the period 1929 to 1933; the percentage of illnesses hospitalized increased considerably during the same period; and the amount of free care both from hospitals and physicians soared to a very high point, according to a first-hand census to determine the relation between sickness and the depression made jointly by the United States Public Health Service and the Milbank Memorial Fund.

The survey consisted of a house-to-house canvass of 6686 wage-earning families comprising 29,000 individuals, residing in Baltimore, Birmingham, Cleveland, Detroit, New York, Pittsburgh, and Syracuse. After the investigators had turned in their findings, the families were classified into 3 groups, namely, "poor," comprising those with annual incomes averaging less than \$150 per person; "moderate," those with \$150 to \$424 per person; and "comfortable," those with \$425 or more per person per year. Families with downward shifts in income since 1929 from one class to another were compared with families who experienced no loss of income. These results were also compared with findings for families in similar income levels by the Committee on the Costs of Medical Care for the period 1928-1931 and it is indicated that only about 52 per cent of the cases of illness received some medical care, whether from doctor or hospital, in 1933 as against 68 per cent in 1928-1931, the difference amounting to a drop of 23½ per cent. Hospitalization taken by itself showed a rise of about 14 per cent for this period, being given to about 7.4 per cent of the illnesses in 1933 as against 6½ per cent in 1928-1931.

On the basis of physicians' calls per thousand persons (whether sick or not), the survey shows nearly 11 per cent fewer calls in 1933 for all the families questioned

than would presumably have been the case if none of them had experienced a loss of income since 1929. In other words, this is the drop in doctors' care as shown by comparing the families whose incomes dropped with those who remained on their respective wage levels. The sickness rate among families with reduced incomes was higher than that of the families not suffering loss of income and this brought a need for more physicians' care. When this fact is taken into account, the physicians' calls actually made were 17 per cent fewer than would have been expected if the ability to purchase medical care had not been lowered. Nearly 29 per cent more hospital care per thousand persons (whether sick or not) was shown in 1933 than would have been the case if all the families had continued without reduction of income.

Along with the cut in general medical care and the increase in hospitalization went increases in the amount of free care obtained. The comparisons reveal that the families investigated in the 7 cities received 49 per cent more free hospital care than they would have received if there had been no depression. About 15 per cent more free care was obtained from physicians.

An interesting fact revealed by the survey was that the families whose income had been in the "poor" class since before 1929 got considerably more free care than the wage-earning families who had dropped from higher income levels. Thus the wage-earners who remained "poor" paid for only 24 per cent of the calls made by doctors; those who had dropped from the "moderate" group to the "poor" group paid for 42 per cent of the calls received; and those who had been "comfortable" but are now "poor" paid for a still higher proportion, 46 per cent, of the doctors' calls which they received. Taking the "new poor" and the "chronic poor" all together it was found that 61 per cent of the calls made by physicians were free to the families.

There were more acute disabling illnesses in the "poor" class than in the "comfortable" class, the rate for the former being 108 cases per 1000 persons, or slightly more than one in ten, as against a corresponding figure of 80 per 1000 persons in the "comfortable" class. The "poor" received only 2.2 calls per illness from doctors as compared with 3.7 calls for the "comfortable." This difference in physicians' care presumably arose through better ability to pay on the part of those with the higher income. The "poor," however, received more hospital care per case and more care from visiting nurses than those rated as "comfortable."

PHYSICAL THERAPY

New Radio Knife.—According to *Science News Letter*, medical men are hailing a new radio knife for surgery as a boon to surgeons and patients alike.

This radio knife was designed by C. J. Breitwieser, graduate research student at the California Institute of Technology, and by high frequency radio waves converts an ordinary scalpel into an electrical surgical instrument.

The radio knife is claimed to have many advantages over the electric knife in that there is no need for cumbersome wire connections between the knife and the source of electricity. Two vacuum tubes are a vital part of the apparatus. Possibility of electric shock to patient or doctor is eliminated in the new radio knife. Danger of sparking from the apparatus is minimized.

MEDICOLEGAL NOTES

Wins Verdict for "Future Pains."—A jury in Sunbury, Northumberland County, Pa., March 29, 1934, returned a verdict of \$1882 for the plaintiff who had been injured in an automobile accident. One thousand dollars of the award is designated as compensation for "future pains" he may have as a result of the injuries received.

Additional Articles on Medicolegal Notes

Northumberland County, May 8—p. 785.

Philadelphia County, April 13—p. 786.

INDUSTRIAL MEDICINE

Eye Protection in Industry.—According to Louis Resnick, director of Industrial Relations, National Society for the Prevention of Blindness, the eye hazards of industrial occupations have come to be among the most serious of all causes of blindness. It has been estimated that at least 15 per cent of the blind of America lost their sight because of occupational hazards.

Considerable progress has been made in the development of mechanical safeguards for the eyes of factory workers. Though marked reductions have been made in the number and severity of eye accidents, considering industry as a whole, however, the problem of protecting the eyes of employees is still largely unsolved.

More money is paid by employers for injuries to eyes than to any other part of the body. In the principal industrial states, a total of more than \$10,000,000 a year is paid to workmen who have lost part of or all their sight.

The eye hazards of industry are the accident hazards, the disease hazards, and hazards of excessive eye fatigue. Accident hazards are produced chiefly by flying chips of metal, wood, rock, or other hard substances; by falling or thrown tools, raw materials, and other large objects; by the splashing of molten metal or injurious chemicals. Disease hazards affecting the eyes with which industry is concerned are the general diseases, trachoma, cataract, nystagmus, and the general toxic effects of those poisonous chemicals commonly used in many industries.

The hazards of excessive eye fatigue are those due to insufficient light (glare), flickering light, or too long neglect of eye conditions requiring refraction or other corrective measures.

Accident hazards can be prevented by the provision of protective devices, such as goggles and head masks for individual workmen, screens of metal, wood, or canvas between worker, and glass shields; by revision of the process of work, redesign of tools and machines, or rearrangement of machines; and by rules of work, by supervision, training, and education in safe practices of workmen and foremen.

HOSPITAL ACTIVITIES

Pure Oxygen in Patient's Room.—The University of Wisconsin State General Hospital at Madison has a new arrangement by which pure oxygen is piped directly to the patient's room. Oxygen tents and tanks of oxygen which before have been carried from one room to another as the demand directed will be replaced by a pipe connection to a supply of pure oxygen obtained from a central system.

Hospital authorities state that the bulky oxygen tents and tanks are becoming obsolete.

The Wisconsin General Hospital will be the first in the country to establish this innovation.

St. Paul (Minn.) Reports on Six Months of Group Hospitalization.—A. M. Calvin, superintendent, Midway Hospital, St. Paul, secretary, Hospital Service Association, St. Paul, states they have just completed the first 6 months of actual experience with group hospitalization. There are 8 hospitals in the group, and all are well satisfied with the progress made. They have approximately 1500 members, and the total income to date is over \$4000. The number receiving treatment was $267\frac{1}{3}$ patient days and the amount received by them and paid to the hospitals for service was \$1336.67. These patients paid for extra service \$268.72 to the hospitals; also members' dependents received \$224.71.

The volume of membership is increasing. A minimum of 3000 members is expected for next year. They are going slowly and have been very cautious. The administration expenses, which include organization expenses, were \$2645. The hospitals that are members of this group plan have defrayed a portion of the organization expenses.

An important feature, which every community endeavoring to carry out group hospitalization should remember, is that an accounting system must be set up to show unearned premiums. Unless one is cautious in this regard the unearned premium will be counted as used premium in any ordinary financial set-up.

They have very wisely used sufficient legal advice in the set-up of their organization. The Hospital Service Association, which is a corporation, is the agency of their hospitals for the purpose of selling and collecting for group hospitalization. A Joint Hospital Committee is organized, composed of 2 members from each hospital which is concerned in this plan. This Joint Committee directs the policies and wishes of the individual hospitals. This places the hospitals in a position of directly offering the services to be rendered and does not classify group hospitalization as insurance.

Though it has taken approximately a year and a half to get underway and to prepare for the present organization they have had to make many changes to provide the utmost protection possible. They are now making a study to carry out a plan of group hospitalization for the entire family.—*Hospital Management*, February, 1934.

Appropriations

On April 18, 1934, the commissioners of Delaware County, Pa., announced aid to the poor of the county who need medical, surgical, and hospitalization service by appropriations to the 3 hospitals in the county, based on 60 per cent of the yearly State appropriations. Chester Hospital will receive \$21,600, Taylor Hospital, Ridley Park, \$7080, and Delaware County Hospital, of Upper Darby, \$7560. An appropriation of \$20,000 has also been made for treatment of tuberculous sufferers in hospitals by the Delaware County Tuberculosis Society that 40 patients can be cared for by this fund. The total appropriation of \$56,240 will be taken from the fund of more than \$1,000,000 received several weeks ago from the estate of Dr. John T. Dorrance, former head of the Campbell Soup Company, representing the 4 mill tax on securities for a period of 4 years.

PUBLIC HEALTH

Birth Rate

Findings in a house-to-house canvass of 8000 families in 8 typical cities, just completed by the Milbank Memorial Fund in coöperation with the United States Public Health Service, indicate that wage-earning families who suffered serious loss of income on account of the depression had 39 per cent more babies in the period 1929 to 1932 than their neighbors whose incomes were not reduced following 1929. At the same time there was 50 per cent more illness in families whose incomes dropped most sharply than in families who were not seriously affected by the depression.

The study was limited to white families with wage-earners in the skilled, unskilled, or "white collar" classes, residing in the poorer districts, exclusive of slums, in New York (Manhattan), Brooklyn, Syracuse, Baltimore, Birmingham, Pittsburgh, Detroit, and Cleveland. The average income of these families was \$1700 in 1929; it dropped to \$900 in 1932.

The investigation revealed that families without any employed workers in 1932 had a birth rate during the depression 48 per cent higher than those which had one or more full-time workers in 1932. A special study in 4 cities showed that the families living on relief funds had a birth rate 53 per cent higher than those not on relief but with incomes of less than \$1200 a year.

The average annual birth rate, during 1929-1932, per thousand married women age 15 to 44 years in the whole number of families studied was 152, as compared with 126 for the nation as a whole. For the families included in this investigation the birth rate was 39 per cent higher where the income dropped than where it did not change. The birth rate for families with incomes averaging below \$1200 was one and one-half times that of those averaging above \$2500 but still in the wage-earning class. The highest birth rate, 178 per thousand, was in families classed as poor in 1929 as well as in 1932. It is considered significant that families forced to shift from a higher to a lower income level were found to have a higher birth rate during the depression years than those families who were able to remain in the class from which the downward shift was made. Where the drop was from \$2000 or more to less than \$1200 the differential rates were 107 for those who kept their income and 133 for those who suffered a loss; for the drop from those averaging between \$1200 and \$2000 to a level below \$1200 the differential rates were similarly 113 and 157.

An important scientific feature of the investigation was that the families whose breadwinners still had their jobs served as a "control group."

Pure Food and Drugs Bill

The Pure Food and Drugs Bill, which Senator Cope-land introduced in the Senate almost a year ago, has now been revised a fourth time. Another way of saying this is that the Senate Committee on Commerce, which has the bill in hand, has made another series of concessions to the highly organized food and drug lobbyists. One more revision like the others, and nothing further will be left to concede. Of the latest revisions, the most serious is the limitation of a clause that would have prohibited the advertisements of drugs for 34 diseases—such as cancer, tuberculosis, appendicitis, etc.—wherein self-medication is obviously inimical to health. Another amendment gives fruit growers the privilege of enhancing the color of citrus fruits "by means harmless to the consumer" without requiring the growers to

declare such enhancement on the label. Still another restricts the power of the Secretary of Agriculture in making "multiple seizures" for misbranding—a power that existed under the present inadequate Food and Drugs Act.

Even with the concessions made, however, the administration believes the bill is an improvement over the existing law. For it brings cosmetics and advertising—for the first time—within the purview of the Food and Drug Administration. These are the 2 chief features of the original bill which remain, though the regulation of these 2 industries has been severely hedged in with numerous "revisions." Advertising, which was first defined as false if it was misleading "by ambiguity or inference," is now false only if it is misleading "in any particular." The hope that patent medicine labels could be made not only truthful but informative died when the committee eliminated the provision requiring labels to bear formulas and to say, if the medicine is not a cure, that it is not. The Secretary of Agriculture no longer has the power to establish quality standards for foods and, in addition, must submit all regulations for the enforcement of the act to boards of review appointed by the President. It is not impossible that these boards (one for foods and one for drugs) will be so swamped with work as to block the efficient administration of the law. In short, the fourth revision of the Food and Drugs Bill is far from the measure for consumer protection that it was a year ago. Meanwhile, a number of bills have been introduced in the House, sponsored mainly by the food and drug interests. The existence of these bills may result in further concessions before Congress finally enacts a law.—*The New Republic*, March 28, 1934. (From all reports it would seem that this Bill will not be acted upon at the present session of Congress.—EDITOR.)

At the Sinai Hospital, Baltimore, a drug has been demonstrated that physicians believe may revolutionize the use of anesthetics. Dr. Albert E. Goldstein has used the drug on four patients and no ill after-effects have been produced. The patients were able to eat heartily before and after the operation. The almost instant sleep produced by this drug is normal; there are no contractions of muscles and the patient does not become excited or struggle.

The yet unnamed drug is in the form of small crystals which are dissolved in triple distilled water and administered with a hypodermic needle in a vein in the patient's arm.

Heart Disease Toll Has Great Increase

Diseases of the heart constitute 22 per cent of the deaths from all causes in Pennsylvania today, though 25 years ago such affections comprised only 9 per cent of the total mortality, according to Emlyn Jones, director of the State Health Department of Bureau of Vital Statistics.

"Since 1920," said Dr. Jones, "heart disease has been the leading cause of death in Pennsylvania. In the early years of registration this cause was surpassed in mortality importance by pneumonia and tuberculosis.

"In 1932 there were 24,098 deaths in this Commonwealth from heart disease. This total, as well as the death rate of 245.1 per 100,000 population, established a new high record. In the past 27 years heart ailments have been the primary cause of 413,510 deaths in Pennsylvania, and have appeared as the contributory factor on thousands of other death certificates.

"This alarming increase in heart disease is attributed to various causes, including high-pressure living, exces-

sive use of stimulants of various kinds, and a general lack of appreciation of the value of the annual physical examination which, if applied, can in many instances discover incipient heart conditions.

"While, a number of the childhood diseases are directly responsible for weakened hearts, such conditions can also be discovered by a thorough physical examination and, speaking in averages, can be reasonably controlled. Coöperation by the public, in eliminating habits of living which weaken hearts and by the adoption of the periodic examination, will be necessary if the present mortality rate attributable to bad hearts is to be lessened."

Disease-carrying Cup.—The editor of the *American Journal of Public Health* calls attention to the change in form of the common drinking cup: "The common drinking cup has never really been abolished. We still have it, though not in the same form as before. Now it is in the form of glasses, dishes, and tableware inadequately cleansed between servings.

"Go to almost any soda fountain in any city; watch the attendant pluck a glass from the counter, swish it about hastily in a basin of muddy-looking tepid water, rinse it quickly in cold water, then use it to serve another customer.

"That glass is worse than the common drinking cup! Its superficial washing has served only to bring it into contact with germs from many other glasses 'washed' in the same water.

"Influenza, the common cold, tuberculosis, pneumonia, scarlet fever, diphtheria, whooping cough, and Vincent's angina, are among the principal diseases that can be transmitted by unclean eating utensils. Pathogenic organisms are not removed by common methods of washing. After they are used and hand-washed, more than 20 per cent of the organisms remain adhering to eating and drinking utensils.

"About 92 per cent of all communicable diseases are transmitted through the mouth and nose. Surely there is no better place to break the chain of saliva-borne and food-borne infections than at eating and drinking places."

Parents' Council, Philadelphia

On May 1, 1933, the Board of Directors decided to amalgamate the Parents' Council with the Institute of the Pennsylvania Hospital. On Jan. 17, 1934, this committee decided to dissolve, believing that by this action the Institute would be given maximum efficiency in carrying on parental education. The coming year's plans call for a continuation of the general work of the Council, for upkeep of library, lectures, and study groups. The continuation of general work depends upon the renewal and extension of contributorships. The Institute of the Pennsylvania Hospital is essentially for the purpose of education in personal relationship and for the prevention of serious difficulties which frequently result from the lack of knowledge of laws of happy living and good adjustment. The combined staffs and boards of the Institute and the Council feel that the work of both organizations fitted together excellently. The Institute has always worked with individuals, the Council with groups. The years of work of the Institute and of Parents' Council and the more recent work with the Emergency Relief have all pointed to the fact that education for personal relationships and for living itself should not be confined to parents alone. Teachers, doctors, ministers, lawyers, business men and women, adolescent boys and girls—all are questioning the meaning of existence and are looking for help in understanding themselves and the problems of life.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

PULMONARY tuberculosis of the adult type is rare in children of school age. Though uncommon, the disease when it attacks children is serious. Our knowledge of the course of adult type tuberculosis in the child has been deficient because of the scarcity of published data. Therefore, a review of the cases of pulmonary tuberculosis of the adult type in children and adolescents who have been cared for since 1910 at the State Sanatorium at Westfield, Massachusetts, is particularly welcome. Extracts of the report follow.

CLINICAL PULMONARY TUBERCULOSIS IN CHILDREN

The 631 cases of adult type pulmonary tuberculosis among children and adolescents (under 18 years of age) treated at the state sanatorium since 1910 are divided into 3 groups.

1: In the first group are 200 cases admitted from March 1, 1910, to March 1, 1920. No roentgen-ray apparatus was available during this period. The diagnosis was established by the presence of tubercle bacilli in the sputum.

2: The second group comprises 195 cases admitted from March 1, 1920 to March 1, 1927. The diagnosis was made on the roentgen-ray findings, with or without positive sputum. All in this group reacted to the tuberculin test.

3: In the third group are 126 cases admitted from 1929 to 1930. The diagnosis was established as in the previous group. In all groups only patients under 18 years of age are included.

Salient Features

About 70 per cent of the 395 cases embraced in groups (1) and (2) were girls. The incidence according to age was about the same for both sexes. It was only 18 per cent for children 12 years of age or younger, which confirms the common experience that pulmonary tuberculosis is not a frequent disease in children before their teens.

Almost one-half gave history of contact and the author comments that while the search for tuberculosis among contacts will yield greatest results we should realize that a large number of cases have no known contact and that, therefore, every practical method of case finding should be used.

The mode of onset is almost impossible to de-

termine, in fact the disease in a large percentage of cases progresses before any symptoms are noted. Cough (64 per cent) was the most frequent symptom, and weakness (14 per cent) was next.

Study of the stage of the disease on admission showed a gratifying increase as time progressed, in the percentage of minimal cases. Only 9 per cent of boys and 5 per cent of girls were minimal cases in the first group, while in the third group the ratio was 38 per cent for boys and 28 per cent for girls.

The low percentage of minimal cases in the first group is due to the fact that only positive-sputum cases were included in that group. When the statewide school clinic plan was begun (1924) the percentage of minimal cases increased markedly.

Prognosis is Serious

The prognosis of adult type tuberculosis in children based on the experience of the groups studied is gloomy and the prospects of bettering it are discouraging. Of 200 cases of the first group (1910 to 1920) 158 are known to have died of pulmonary tuberculosis. It should be remembered that this group constituted an unfavorable series since all had positive sputum and 144 of the 200 were classified as advanced on admission.

In the 1920 to 1927 series results were somewhat better because diagnosis aided by the X-ray and tuberculin test was more precise, more rest treatment was given, and artificial pneumothorax was used in 5 cases. Of the 195 cases of this group 125 had positive sputum on admission, 112

were advanced cases, 52 had cavities and 133 had bilateral involvement. One would not expect a good result from such a group. At the time of the study, 1932, 133 (68 per cent) were known to be dead. Of the 22 minimal cases none of the patients died in the sanatorium but 9 have died since.

Treatment

Patients of the 1910-1920 group were not given bed rest treatment unless there was fever or other symptoms. Gradually, however, rest treatment was extended and by 1927, at least one year of bed treatment was given to all pulmonary cases. While it is too early to give a detailed composite report of the later group it can be said that in the minimal cases the results have been very good—at least temporarily. In a considerable number there has been complete clearing as shown by the roentgen ray and the patients are clinically well. Of 49 moderately advanced cases (admitted from June, 1927, to June, 1930) 11 patients died in the sanatorium and of 62 ad-

vanced cases, 27 patients died. Apparently prolonged bed rest treatment has been very efficient in many minimal cases and in a few of the moderately advanced though the mortality of advanced cases remains very high.

Pneumothorax has been in use for the past 2 years. This offers hope of better results but unfortunately this treatment often cannot be used on account of bilateral involvement and adhesions.

In the face of the generally discouraging situation what can be done? The logical procedure is to find tuberculosis while it is early and curable. Clinics should be more widely conducted in the schools with the routine use of the tuberculin test and roentgen ray. Special emphasis should be placed on the examination of all children known to have been exposed to the disease. The public should be educated to the necessity of prompt treatment for every child in whom a diagnosis of pulmonary tuberculosis has been established.

Certain Aspects of Pulmonary Tuberculosis in Children, Roy Morgan, Am. Rev. of Tuberc., May, 1934.

THE records of Negro children in a Connecticut tuberculosis sanatorium for white and colored children were studied. While the data submitted do not lend themselves to exact comparison with those reported in the article abstracted above, the general observations are in close accord, and also bring into sharp relief certain characteristics of tuberculosis in Negro children. The article deals with all forms of tuberculosis but only brief extracts of the comments on pulmonary tuberculosis of the adult type are here offered.

CLINICAL TUBERCULOSIS IN NEGRO CHILDREN

The ratio of Negro to white children admitted to the sanatorium is much higher than the ratio of white and Negro children in the general population of the state. There has been one death for about every 25 white children and 4 deaths for every 25 Negro children admitted.

Negro children with adult type pulmonary tuberculosis of any greater extent than minimal almost invariably failed to recover. No Negro child who ever had positive sputum recovered. The average age of Negro children with adult type pulmonary tuberculosis was 11 years. (For children of the Massachusetts study, most of whom were white, the comparable figure is 14 years.) The average length of illness of those who died was 8 months, whereas white children with similar pathologic conditions survived on the average about one year and 7 months.

"The Negro child," says the author, "by the violence of his reaction to primary tuberculous infection, by developing serious tuberculous disease at an earlier age, by the frequency of asso-

ciated tuberculous lesions or complications, and by earlier surrender to lethal disease, depicts a characteristic picture that is more peculiar to the majority of colored children than to children of the considerably more immunized white race."

Negro children undoubtedly have less resistance to tuberculosis than white children but the study yielded no certain evidence as to what is responsible for such lower resistance. The findings, however, indicate that the lower resistance of Negro children is not due to a lack of childhood infection, an opinion which is held by some. ".....we might conjecture that whereas first infection with tubercle bacilli in the white child modifies his resistance to future infections, similar immunologic reactions do not occur in all colored children, even though they may develop a state of allergy in so far as positive response to tuberculin is concerned."

Tuberculosis in Negro Children, Cole B. Gibson, Am. Rev. of Tuberc., April, 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., Secretary, 8104 Jenkins Arcade, Pittsburgh, Pa.

PROPOSED AMENDMENTS

A notice regarding parliamentary requirements for consideration of amendments to the Constitution and By-laws was published in this Department in the May JOURNAL.

The following proposed amendment to the By-laws, signed by Drs. Seth A. Brumm and Francis A. Faught, of Philadelphia, which was published in the Minutes of the House of Delegates in the November, 1933, issue of the JOURNAL, is among the proposed amendments to be considered by the 1934 House of Delegates:

Chapter VI, Section 1, under COMMITTEES, which begins as follows: "The Standing Committees of this Society shall be as follows, the appointments, when not otherwise provided for, to be made annually by the President." (After list of Committees, add): *It shall be the privilege of the House of Delegates to constitute and finance such other committees as their wisdom may demand; these committees to be appointed annually by the President.*

In line with a recommendation of the Board of Trustees at their May 9, 1934, meeting (see excerpts from Minutes, page 764 this issue) the following proposed amendment to the By-laws was submitted on May 17, by Dr. William H. Mayer, Chairman of the Public Relations Committee:

Chapter VI, Section 1, under COMMITTEES, which begins as follows: "The Standing Committees of this Society," etc., etc.; to list of Committees add: *A Committee on Medical Economics*, also adding an additional Section 2, to read as follows:

The Committee on Medical Economics shall consist of five (5) members to be appointed by the President. It shall be the function of this Committee to investigate and consider problems of sickness costs and to make such recommendations to the House of Delegates and the Board of Trustees as shall result from its studies. It shall be empowered to make surveys of free medical service and to advise as to policies concerning this

feature of medical practice. In the field of medical economics, it shall always endeavor to preserve the traditional point of view of ethical medical practice. It shall encourage and develop the creation of committees on medical economics in the component county medical societies. The appointments to this Committee shall be subject to and contingent upon the approval of the Board of Trustees.

On May 26, the following proposed amendment was also received from Dr. Henry G. Munson, Secretary of the Philadelphia County Medical Society:

That Chapter 6, Section 2, of the Constitution and By-laws of The Medical Society of the State of Pennsylvania shall be amended to include a *Commission (or Committee) on Medical Economics*.

That Chapter 6 shall further be amended by the addition of Section 2, which shall read as follows: The Commission on Medical Economics shall consist of one member from each Councilor District appointed by the President, from a list of members, one to be suggested from each County Medical Society in each Councilor District, one-third of whom (or as nearly as is mathematically possible) to serve for one, two, and three years, respectively. Each year the President shall appoint in a like manner a requisite number of members to serve for three years from the membership of those Councilor Districts whose representation shall have been terminated.

It shall be the function of this Committee to investigate and study the various phases of Medical Economics, especially those relating to State Medicine, hospitalization insurance, and all unethical forms of contract practice, and to coordinate committees or commissions on Medical Economics which may be functioning locally in the various component Societies. It shall report its findings and make recommendations at least four times each year to the President.

FROM MINUTES BOARD OF TRUSTEES' MEETING MAY 9

Chairman Edgar S. Buyers reported on the death on April 11 of Dr. George A. Knowles,

of Philadelphia, Trustee and Councilor for the First Councilor District, stating that he had officially represented the Board of Trustees at the funeral, and that a handsome floral tribute had been sent in the name of the Society. At this juncture those in attendance at the meeting stood for a moment in silent tribute to the memory of Dr. Knowles. A motion was then unanimously adopted instructing the Secretary to prepare an appropriate resolution for inscription on the minutes of the Board of Trustees, a copy to be sent also to the family. The following resolution was unanimously adopted:

Resolution

In the recent death, on April 11, 1934, of Dr. George A. Knowles, of Philadelphia, the Board of Trustees has lost an active and valued member, and we desire to place on record our appreciation of his life of influence and devotion to the interests of the organized medical profession in Pennsylvania. Dr. Knowles served as a member of the Board of Trustees since 1929.

Dr. Knowles held many appointive and elective positions in the Philadelphia County Medical Society and The Medical Society of the State of Pennsylvania. In these capacities he represented the medical profession in the passing of legislation designed to protect the health of the people of Pennsylvania. His kindly manner and his ever beaming smile leave an indelible memory in the minds of those with whom he was associated. Therefore, be it

Resolved, That we express deep sorrow for our loss, that a copy of this resolution be placed upon the minutes, and that a copy be sent to the family.

In accordance with custom, Chairman Buyers had requested the President of the Philadelphia County Medical Society to suggest the name of a satisfactory candidate to fill—until the next meeting of the State Society House of Delegates—the office of Trustee and Councilor for the First Councilor District made vacant by Dr. Knowles' death. From his files Secretary Donaldson read from President Cornell's response to Chairman Buyers to the effect that at a meeting, held April 26, of the Board of Directors of the Philadelphia County Medical Society and their Society's delegation to the State Society's House of Delegates, a motion prevailed, after a single test vote had been taken, making Dr. George C. Yeager, of Philadelphia, the unanimous choice for recommendation for consideration by the Board of Trustees.

Chairman Buyers, under the authority vested in the Board of Trustees of The Medical Society of the State of Pennsylvania (Chap. 9, Section 6, *Constitution and By-laws*) then declared Dr. Yeager formally elected, and the latter being present at the meeting, in a few well chosen words accepted the office, pledging service.

Secretary Donaldson offered the following plan: This plan based on the greater need for close and repeated contacts between State Society representatives and members of the County Societies on subjects of public health legislation and medical economics believed to lie ahead of us in the next twelve months, was designed by President Guthrie and the Secretary to express appreciation of past courtesies and to encourage continued consistent coöperation of component society official publications with statewide activities of the State Society.

Upon motion of Dr. E. Roger Samuel, seconded by Dr. A. S. Kech and carried, the recommendation of President Guthrie and Secretary Donaldson was adopted, which provided that a sum not to exceed \$2,250.00 be appropriated, further, that under an equitable plan to be devised and put into effect by a committee consisting of the Chairman of the Finance Committee of the Board of Trustees, and the President and the Secretary of the State Society, reasonable sums of money from this appropriation be awarded to certain component societies publishing bulletins periodically from September 1, 1934, to September 1, 1935; further that it be understood that the application of the plan will not establish a precedent nor in any way give the impression of permanency.

Discussion of this proposal brought out the question of county medical society publications which carry advertisements considered unethical and refused by our State Society JOURNAL, as well as by the *Journal of the American Medical Association*. After considerable discussion, a motion, duly seconded, was adopted referring this question to the Publication Committee for further study and subsequent report.

Chairman William H. Mayer of the State Society Committee on Public Relations was requested, when presenting his report, to discuss the existing policies between his Committee and the State Society Committee on Medical Economics. Dr. Mayer, after reviewing the activities of his Committee, stated that subsidiary relationship of the Committee on Medical Economics to his Committee was purely nominal, and that no attempt had been made to restrict its activities.

A vote of complete confidence in the Committees on Public Relations and Medical Economics was unanimously adopted. In the general discussion which followed, it was agreed that the Economics Committee should be definitely separated from the Public Relations Committee; further, that these committees should continue to function as fact-finders, and not as

policy-outlining groups, except through the Board of Trustees and the House of Delegates.

President Guthrie reported to the Board of Trustees the resignation on April 8 of Dr. Alex. H. Stewart of Indiana County as a member and as Chairman of the Public Health Legislation Committee, the resignation being based on Dr. Stewart's decision that it had become necessary for him personally to take an active part in the current political primaries for State and county officers in his own county, and his opinion that such activities were incompatible with membership on the State Society's Health Legislation Committee.

The resignation having been accepted, a motion was made by Dr. Kech, seconded by Dr. Anderson, that the secretary be instructed to convey to Dr. Stewart the regret of the Board at his decision, and expressing full appreciation of the untiring, unselfish, and constructive service he has rendered as Chairman of the State Society's Public Health Legislation Committee since October, 1930, with special mention of his outstanding work at Harrisburg during sessions of the Legislature.

President Guthrie, in announcing the appointment of Dr. C. L. Palmer of Allegheny County to succeed Dr. Stewart as Chairman of the Committee, called attention to Dr. Palmer's many years of experience as a member of the Public Health Legislation Committee of the Allegheny County Medical Society, and his Chairmanship of the Joint Conference Committee of Allegheny County, which unites the Health Legislative interests and activities of the organizations of the following in the county: Physicians, including Homeopathic Medical Society; Pharmacists' Association; Odontological Society; Hospital Conference; Nurses' Association; and the Women's Auxiliaries to the Allegheny County Medical Society and to the Allegheny County Homeopathic Medical Society.

President Guthrie announced to the Board the following as the personnel of the State Society's Committee to Consider Improvements in Pennsylvania's Workmen's Compensation Law, all having definitely accepted the appointment at that time except Dr. Jeffrey: George H. Cross, M.D., Chester; Charles Falkowsky, M.D., Scranton; L. K. Ferguson, M.D., Philadelphia; George W. Hawk, M.D., Sayre; Robert H. Jeffrey, M.D., Uniontown; George L. Laverty, M.D., Harrisburg; William H. Mayer, M.D., Pittsburgh; Franklin P. Phillips, M.D., Franklin; Calvin M. Smyth, Jr., M.D., Philadelphia, *Chairman*.

EMERGENCY MEDICAL RELIEF IN 46 STATES

Herbert E. Phillips, D.D.S., of 5457 S. Ashland Ave., Chicago, Illinois, a member of the Committee on the Costs of Medical Care and a signer of its Second Minority Report, has, with the aid of the Bureau of Public Relations of the American Dental Association, just completed a survey of responses by the medical and dental professions furnishing emergency medical care to those on unemployment relief under *Rules and Regulations* based on F. E. R. A. Pamphlet No. 7. The survey is based on responses received by Dr. Phillips from representatives of 45 state medical and 46 state dental societies.

The report is worthy of a more extensive review than we can give it at this time. One of its chief values lies in its record of comments by emergency relief social workers regarding their difficulties with practitioners of the healing art in relief practice. As a result of the study, with its nationwide and varied experiences, the following program (more or less familiar in Pennsylvania), designed to best meet the welfare of patients and healing professions has been evolved:

1. All questions regarding the amount of funds available be settled by the administrative authority.
2. All questions regarding the financial and social eligibility of the patient be settled by the social worker.
3. Once these are decided, the patient rests completely in the hands of the organized health profession, which would be responsible for:
 - (a) Preparation of the list of practitioners, including all eligible.
 - (b) Allocation of patients, thereto, permitting free choice.
 - (c) Decision as to type and amount of service needed to rest in the hands of the individual physician, subject to review only by his professional society, which assumes responsibility therefor.
 - (d) It would seem a wise social policy, once the administrative authority had made the budgetary decision mentioned above, for the professional society to be given the responsibility for spending these funds wisely and with the greatest benefit to the patients concerned.
 - (e) All questions of discipline, of medical procedure and ethics, to rest solely in the hands of the organized profession, which shall assume responsibility therefor.

A digest of the Report will be printed later by Dr. Phillips, and reprints thereof will soon become available. —*Pittsburgh Medical Bulletin*, May 5, 1934.

MEDICAL SERVICE TO THE CHRONICALLY INDIGENT

As the most direct evidence yet developed in Pennsylvania that under Pennsylvania's existing General Poor Relief Act, county poor authorities can legally arrange for medical service to the indigent, outside of County Homes, *etc.* Under a free choice of physician and fee payment plan, we submit the following advertisement addressed to all practicing physicians in York County, from a York, Pa., newspaper of April 11, 1934. The title making use of the word "warning," it should be understood, is

customary in legal notices to any interested groups:

WARNING TO DOCTORS

All practicing physicians in York and York County are requested to read and heed these rules and regulations of the Directors of the Poor of York County which govern and limit physicians not regularly employed by the board in rendering services to patients who are indigent and incapable of paying for medical service.

Written Order.—All authorization for medical care shall be issued in writing, except that telephone authorization shall immediately be followed by such a written order. All authorization for medicine and medical supplies shall be issued in writing.

Acute Illness.—Authorization for medical care for acute illness shall be limited to a definite period and a maximum expenditure or number of visits, not more than 2 months or 10 visits.

Medical care in excess of this period shall be authorized until after a re-investigation of the case in the home by an authorized representative.

Chronic Illness.—Medical care for prolonged illnesses, such as chronic asthma, chronic heart disease, chronic rheumatism, diabetes, *etc.*, shall be authorized on an individual basis and in general, visits shall be limited in frequency, not more than one visit per week for a period not exceeding 2 or 3 months, by agreement.

Fee Schedule.—In the interests of simplified accounting a flat rate shall be established on a per visit basis, on an agreed reduction from the usual minimum fee, and shall be established on the basis of an appreciable reduction from the prevailing minimum charges for similar services.

A recognized differential in fee shall be established between a home and office visit.

The schedule is as follows:

\$1.00 office visit with medicine.

\$1.50 for town or borough visit with medicine.

\$2.00 for county visit.

Bills.—Physicians, nurses, who are providing authorized medical care to indigent persons in their homes, shall submit monthly an itemized bill for each patient.

Each bill shall be chronologically arranged and shall contain at least enough information to permit proper audit, *i. e.*, name, age, and address of patient; general nature of illness; whether home or office treatment; date of service and status of case at end of month; cured, sent to hospital, dead, needs further care, *etc.*

Medicine and Medical Supplies.—Physicians providing authorized medical care to indigent persons shall use a formula which excludes expensive drugs, where less expensive drugs can be used with the same therapeutic effect.

(Signed) L. A. KALTRIDER, *President*,
HIRAM BLACKLOCK,
JACOB EBERLY.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence make grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary, Lycoming County Medical Society	\$150.00
Woman's Auxiliary, Philadelphia County Medical Society	100.00

Total contributions since 1933 report \$1154.00

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since April 14. Figures in first column indicate county society numbers; second column, State Society numbers:

1934

Apr. 14	Montgomery	163-166	6192-6195	\$30.00
	Perry	11	6196	7.50
	Delaware	140	6197	7.50
16	Bradford	35-38	6198-6201	30.00
	Huntingdon	25-26	6202-6203	15.00
	Indiana	37-45	6204-6212	67.50
	Monroe	16	6213	7.50
	Clarion	25-28	6214-6217	30.00
	Philadelphia	1015-1644	6218-6847	4725.00
17	Delaware	123, 129	6848-6849	15.00
	Erie	143-145	6850-6852	22.50
18	Berks	154-155	6853-6854	15.00
	Northumberland	74-75	6855-6856	15.00
	Lackawanna	193-204	6857-6868	90.00
20	Venango	47	6869	7.50
	Lehigh	117-139	6870-6892	172.50
	Columbia	29-31	6893-6895	22.50
	Franklin	60-61	6896-6897	15.00
21	McKean	37-38	6898-6899	15.00
	Schuylkill	147	6900	7.50
23	Venango	48	6901	7.50
24	Westmoreland	138-148	6902-6912	82.50
	Washington	110-112	6913-6915	22.50
	Dauphin	202	6916	7.50
24	Mercer	73-74	6917-6918	15.00
	Indiana	46	6919	7.50
27	Lackawanna	205-216	6920-6931	90.00
	Huntingdon	27-29	6932-6934	22.50
28	Beaver	76-78	6935-6937	22.50
	Wayne-Pike	18, 20	6938-6939	15.00
	Delaware	141	6940	7.50
	Delaware*	145	7764	7.50
30	Monroe	17	6941	7.50
	Perry	12	6942	7.50
	Jefferson	35-46	6943-6954	90.00
	Luzerne	302-304	6955-6957	22.50
	Lancaster	132-159	6958-6985	210.00
May 1	Clarion	29	6986	7.50
	Cambria	167	6987	7.50
	Montgomery	167	6988	7.50
	Armstrong	44	6989	7.50
	Fayette	109	6990	7.50
	Wayne-Pike	21	6991	7.50
4	Clearfield	56-58	6992-6994	22.50
	Butler	27-47	6995-7015	157.50
	Venango	49	7016	7.50
5	Blair	96-97	7017-7018	15.00
7	Monroe	18	7019	7.50
	Elk	22-24	7020-7022	22.50
	Luzerne	305-307	7023-7025	22.50
	Beaver	79	7026	7.50
9	Northumberland	76	7027	7.50
	Wayne-Pike	22	7028	7.50
10	Cambria	168	7029	7.50
	York	134	7030	7.50
	Greene	28	7031	7.50
11	Venango*	58	7765	7.50
	Venango	50	7032	7.50
12	Delaware	142	7033	7.50
	Schuylkill	148	7034	7.50
	Lawrence	66-67	7035-7036	15.00
	Beaver	80-81	7037-7038	15.00
14	Beaver	82-83	7039-7040	15.00
	Indiana	47	7041	7.50
	Montgomery	168-170	7042-7044	22.50
15	Clearfield	59	7045	7.50
	Adams	25	7046	7.50
	Bucks	55-58	7047-7049	22.50
16	Lackawanna	217-220	7050-7053	30.00
17	Franklin	62	7054	7.50

* Indicates 1933 dues.

1934				
May 17	Schuylkill	149	7055	\$7.50
	Chester	100	7056	7.50
	Lebanon	31	7057	7.50

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to May 14:

ALLEGHENY: *New Members*—A. A. Krieger, 6023 Penn Ave., Harry M. Little, 3604 Victoria St., J. Wesley Post, 2599 Belrose Ave., George J. Sarraf, 3701 Penn Ave., Pittsburgh; Samuel F. Round, 812 Braddock Ave., Braddock. *Deaths*—Fulton R. Stotler, Wilkensburg (Jeff. Med. Coll., '69), Apr. 28, aged 86; Valentine J. Yorty, Pittsburgh (Balt. Med. Coll., '04), Apr. 17, aged 57.

ADAMS: *New Member*—Robert R. Stoner, Jr., York Springs.

ARMSTRONG: *New Member*—Ivan N. Boyer, Kittanning.

BEAVER: *New Member*—Daniel B. Suffoletta, Midland. *Death*—E. S. H. McCauley, Beaver (Cleveland Med. Coll., '97), May 1, aged 61.

BLAIR: *Death*—William A. Nason, Roaring Spring (Eclectic Med. Coll. Cin., '87), Apr. 29, aged 72.

BRADFORD: *Reinstated Member*—Frederick Rice, Sayre. *Death*—Perley N. Barker, Troy (Med. Chi. Coll., Phila., '87), Apr. 4, aged 78.

BUTLER: *New Member*—Donald E. Schell, Zelienople. *Death*—Olin A. Williams, Butler (Hahnemann Med. Coll., '90), Mar. 29, aged 75.

CAMBRIA: *Death*—Joseph J. Meyer, Johnstown (Jeff. Med. Coll., '15), May 8, aged 41.

CENTER: *Death*—Melvin J. Locke, Bellefonte (Hahnemann Med. Coll., '91), Apr. 28, aged 67.

DELAWARE: *Reinstated Member*—Stoddard P. Gray, 1925 W. Third St., Chester. *Transfers*—Patrick J. Kennedy, 279 N. Highland Ave., Lansdowne, and Paul S. Beabold, 2700 Darby Road, Upper Darby, from Philadelphia County Society.

ELK: *Death*—Michael M. Rankin, Ridgway (Med. Coll. of Ohio, '76), Apr. 12, aged 83.

FRANKLIN: *New Member*—John L. Neill, McConnellsburg.

GREENE: *Transfer*—Samuel A. Kamerer, Bobtown, from Washington County Society.

HUNTINGDON: *New Member*—Harry C. McClain, Saxton.

LACKAWANNA: *New Members*—Claude H. Butler, Gouldsboro (Wayne Co.); Charles S. Holman, 1536 Greenridge St., Scranton; James P. O'Boyle, 209 W. Drinker St., Dunmore.

LEHIGH: *New Member*—William H. Endres, R. D. 2, Wescosville. *Death*—Walter C. Brady, Slatedale (Jeff. Med. Coll., '12), Apr. 11, aged 51.

LUZERNE: *Death*—Thomas J. Dailey, Plymouth (Univ. Pa., '09), May 7, aged 50; Walter B. Foss, Ashley (Coll. P. & S., Balt., '87), May 6, aged 75.

MERCER: *New Member*—Edward N. Hagin, Sharon.

MONTGOMERY: *New Member*—W. Osler Abbott, Merion.

McKEAN: *New Member*—Daniel H. Maunz, 33 Chautauqua St., Bradford.

NORTHUMBERLAND: *New Member*—Beatrice Rettinger, 426 Market St., Sunbury. *Transfer*—Charles W. Straub, Middleburg, from Lycoming County Society.

PHILADELPHIA: *New Members*—Samuel L. Lieberman, 5701 Girard Ave.; Wm. J. Tourish, 3530 N. 19th St.; Milton A. Bell, 1423 Nedro Ave.; Wm. Duane, Jr., 2100 Walnut St.; Jesse T. Nicholson, 1726 Spruce St.; Earl A. Daugherty, 1822 Girard Ave.; Charles A. Horan, 722 N. 63d St.; Albert K. Merchant, 3401 N. Broad St.; Richard M. Smith, Jeff. Hos., 10th and Walnut Sts.; Louis A. Soloff, 611 Rising Sun Ave.; Barton R. Young, 3401 N. Broad St.; Walter A. Graham, 701 S. 55th St.; Guy M. Nelson, 928 Clinton St.; Daniel M. Showbrooks, Cambridge Apts., Gtn., Harry S. Weaver, Jr., 4503 Spruce St., Philadelphia. *Reinstated Members*—Stanley E. Biddle, 1609 Widener Place; Louis J. Burns, 1930 Chestnut St.; Harry K. Katz, 1206 Cottman St., Philadelphia. *Resignations*—Wyrrh P. Baker, Washington, D. C.; H. Conrad Egly, Quarryville (Lane. Co.); Hershel C. Walker, Wynewood; Francis S. Hickey, Horsham; Henry J. Off, E. H. Siter, Charles H. Willits, Dwight B. Fuller, Jacob Golove, Carl T. Houlihan, Philadelphia. *Deaths*—Julian H. Dewey, Philadelphia (Univ. Pa., '91), recently, aged 67; John C. Humphreys, Philadelphia (Hahnemann Med. Coll., '08), recently, aged 55; Franklin Noll, Philadelphia (Jeff. Med. Coll., '92), in 1933, aged 62; Henry Wilderman, Philadelphia (Med. Chi. Coll., Phila., '16), recently, aged 43.

SCHUYLKILL: *New Member*—Andrew J. Klembara, Pottsville. *Reinstated Member*—Howard R. Rarig, Ringtown. *Transfer*—Louis C. La Barre, Shenandoah, from Lehigh County Society. *Death*—Vincent A. Calery, Pottsville (Univ. Pa., '25), Apr. 28, aged 39.

VENANGO: *Reinstated Member*—Paul L. Bruner, 234 Seneca St., Oil City.

COMMITTEE ON PUBLICITY

LEWIS T. BUCKMAN, M.D., *Chairman*
Wilkes-Barre, Pa.

GOLF

When the golfers advance on Wilkes-Barre in October, they will find waiting one of the best outlays in northeastern Pennsylvania. The Irem Temple Country Club at Dallas, 8 miles from Wilkes-Barre, offers 27 holes of nearly perfect golf links. Situated on a hill the Club overlooks the village of Dallas and the suburban developments between there and the distant notch in the mountains through which way is had to Wilkes-Barre and the Wyoming Valley. The club house is commodious offering hotel facilities for a limited number. Rabid golfers would do well to ask for reservations here through the Hotel Committee.

South of Wilkes-Barre, between the city and Nanticoke, lies the beautiful Wyoming Valley Country Club, oldest in the valley, originally built in the bicycle days. About 10 years ago the entire course was rebuilt and 18 holes laid out, offering some of the most attractive vistas to be seen on any course.

Just at the northern entrance to the Wyoming Valley outside West Pittston, lies the picturesque Fox Hills Country Club. Here is an 18-hole course, offering many sporty holes, laid out at

the foot of the mountain. Easily reached from Scranton, it may be selected as the scene of the annual tournament. The club house is the most modern of those Wyoming Valley offers.

At Hazleton, the Hazleton Valley Country Club offers facilities to the golfing visitor to the Mountain City.

Visitors at the annual convention in October will be welcome to use any of these courses.

COMMITTEE ON SCIENTIFIC WORK

RICHARD A. KERN, M.D., *Chairman*
Philadelphia, Pa.

PROGRAM OF THE SECTION ON EYE, EAR, NOSE, AND THROAT DISEASES

In planning the program for the Wilkes-Barre Convention, the officers of the Section on Eye, Ear, Nose, and Throat Diseases were met with several unusual conditions.

First to be noted is the large number of papers to be presented by members residing in Philadelphia and Pittsburgh and the excellent representation from the western part of the State.

Second was the discovery that many members outside the larger cities were not eligible this year on account of their participation in the programs of 1933 and 1932.

The third condition was the submission of more papers on the subject of the eye than on the ear, nose, and throat and this made it necessary to devote two days of the convention to the eye and only one to the ear, nose, and throat.

Eighteen papers in all have been accepted, including the two guest speakers. On Tuesday, October 2, Charles N. Spratt, of Minneapolis, Minn., will give a paper on "Glaucoma, Results in Sclerecto-Iridodialysis," with motion picture and lantern slide demonstration. Dr. Spratt's pictures are of unusual merit and have received well deserved praise wherever they have been exhibited. On Wednesday, October 3, W. V. Mullin of the Crile Clinic of Cleveland, Ohio, will read a paper on "The Blood in Otolaryngology." Dr. Mullin, who is secretary of instruction in otolaryngology of the American Academy of Ophthalmology and Otolaryngology, has studied these blood changes over a number of years and has reached some definite and interesting conclusions regarding them. This paper should be of unusual interest.

The other papers are of timely interest to all members of our specialty and we feel that an attendance at the 1934 convention, Wilkes-Barre, will be well worth while.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

WITHIN OUR GRASP

In its brief presented before the Governor's Committee on Workmen's Compensation, July 12, 1933, The Medical Society of the State of Pennsylvania pledged all its facilities and the facilities of its component county societies, in order that fair treatment might invariably be received by the beneficiaries of Pennsylvania's Workmen's Compensation Act. The brief also referred to active committees in most of its county societies prepared to bring economic, political, and social methods to bear on the application of the scientific knowledge of medical diagnosis and treatment to the Workmen's Compensation problem.

Before any of the component societies have had opportunity to demonstrate the truth of the above claims made in their behalf in relation to the compensation problem, all the component societies have had ample opportunity (since Dec. 1, 1933) to demonstrate such knowledge, experience, and willingness to serve in connection with Pennsylvania's Emergency Medical Relief. To their everlasting credit small committees from the county medical societies, known as medical advisory committees to county emergency relief boards, have given, without hope of material reward, of their time and energy in the thankless task of reviewing and advising on the quality and extent of relief medical service in their respective counties. As a result of this fine piece of work contributed at the request of the State Medical Society, under the guidance of Rules and Regulations devised by its own Advisory Committee to the State Emergency Relief Board, both national and state relief authorities have on subsequent occasions turned to our State and county medical societies for administration of various medical and surgical angles of unemployment relief projects. The latest of these is participation in the medical service to be rendered to the employees of the Relief Work Division (R. W. D.) of the State Emergency Relief Board. Harold A. Miller, M.D., director, Emergency Medical Relief for the S. E. R. B., has requested the State Society to sponsor the preparation of lists of physicians in each county to participate in medical service rendered to employees of R. W. D., who have compensable injuries. Such professional services must be of high standard and subject to review by the county and State advisory committees referred to. The schedule of fees for this work is that provided for in the Workmen's Compensation Bureau. Any physician desirous of participating in this service is requested to make application in writing to the Chairman of the Medical Advisory Committee to the Emergency Relief Board in his county, stating that he is willing that his participation therein shall be subject to the general supervision now given in relief cases.

It has been stated that the Bureau of Workmen's Compensation in the Department of Labor and Industry at Harrisburg is willing to give trial to this proposal looking toward consideration of its application in all compensation cases. The crux of the inauguration of this greatly to be desired plan hinges upon the ability of our various county medical societies to demonstrate the practicability of applying the following qualification, which we quote from the State Society Brief above referred to: "The qualifications

of the private practitioner of today include his common honesty in appreciating his limitations to render the most skillful treatment in certain cases, and his usual practice of seeking consultation or referring difficult cases to more skilled practitioners." This plan, under the R. W. D., contemplates the designation of a member of each county medical advisory committee, or the appointment to such committee of a member of the county medical society to act as referee for the county, such referee to be recognized as "acquainted with Compensation practice."

In the above, your president believes that the membership of The Medical Society of the State of Pennsylvania has prime opportunity to give practical demonstration of therapeutic economic, political, and social knowledge of the many-sided problem of the best possible administration of Workmen's Compensation. As we meet this problem in the next few weeks and months, so may we expect to be judged in relation to our further aspirations to influence all forms of medical practice in the State of Pennsylvania. What a splendid opportunity is here afforded to provide the newly created Workmen's Compensation Law Commission of our State Society with convincing evidence to show to the 1935 Legislature in support of liberalizing amendments to Pennsylvania's Workmen's Compensation Act.

DONALD GUTHRIE,
President.

MODIFICATION OF PAYMENT TO PHYSICIANS

May 16, 1934

To: All Medical Advisory Committees, All Participating Physicians and Dentists.

The theory of the Relief Department is to preserve the physician-patient relationship, but in preserving this physician-patient, dentist-patient relationship, we must necessarily guard the total expenditures of the Department by limiting the amount paid to any one physician. Hence the State Medical Advisory Committee has adopted the following plan which is based on the experience of Pennsylvania and other states which are operating an Emergency Medical Relief program:

1. The average bill of physicians in Philadelphia and Allegheny Counties should be about \$5 for each medical order accepted by any one physician (obstetrics excluded).

2. The average medical order of physicians in rural districts should be about \$7 per medical order accepted (obstetrics excluded).

3. When the total amount billed by any one physician exceeds \$100 in any particular month, said bill will be submitted to the State Advisory Committee for review with revision and adjustments, if necessary. In considering these bills, they will give consideration to the approval of the local advisory committee, but act in the capacity of safeguarding the total expenditure for medical service, and keeping the program within economic limits.

The State Advisory Committee recommends that the local Advisory Committee call to their attention epidemics of contagious diseases, or any unusual conditions which would seem to justify any bill in excess of the above named amount.

MESSAGE TO REFEREES TO THE WORKS DIVISION

Dear Doctor:

We accept the recommendation of your local county society to appoint you as referee to the Works Division. The total compensation paid the referees in Pennsylvania is \$1000 per month, divided in accordance with the relief load; the minimum being \$10, the maximum \$40; the latter applies only in 2 counties in the State in which the relief load is approximately 70,000 families.

May I ask that you visualize yourself as a consultant attorney for a corporation from whom you accept a retaining fee? In other words, the local Works Director, or any member of his staff, may consult with you at any time by telephone, call at your office, or correspond with you about any medical problem that comes up in the local Works Division. The Harrisburg office also, has this privilege. This is covered by the monthly fee allowed you.

In addition to the above, you may accept injury cases coming under the Compensation Act, and the Supplementary Act dated June 3, 1933, which will be published in next month's PENNSYLVANIA MEDICAL JOURNAL. For these cases, you will receive compensation in accordance with the local fees for like injuries for people of like social strata. In fact, any physical contact with the patient, such as an examination or consultation, will be in addition to the above named monthly honorarium.

It is your duty as referee to insist that the local Works Director permits the injured individuals to receive medical attention from their family physician, or the physician of their choice, provided, however, that the physician selected is on the participating list and, in your opinion, is capable of rendering adequate medical attention for this particular injury, and the physical condition of the injured employee justifies the delay or transportation necessary. If you have any doubt regarding this matter, you must remember that the interest of the patient is always first, and that you assume the responsibility of assuring us that the attending physician can and will give adequate medical attention; that he is capable of handling the particular type of injury, and understands the rehabilitation work necessary to restore the injured man to the best possible physical condition. Otherwise, it is your responsibility to see that this man is lifted from the physician or hospital rendering first-aid, and placed in the hands of a physician or hospital competent to do this particular work.

When requested, you are to review the bills of the physician or hospital and adjust them in accordance with local fees, but in the case of a hospital, a definite fee is established, in accordance with the fee set down by the combined Catholic and Protestant Hospital Associations. Your duties will not always be pleasant, and may involve openly "lifting" cases at times when the physician himself feels that he is competent. The physician and the injured individual must accept your advice in this respect and be guided accordingly. Physicians will not be paid for services rendered after you have suggested such change. The injured employee also must accept your advice or accept the full responsibility for his subsequent medical care.

Compensation in the sense of a weekly allowance does not apply in this particular type of insurance, but the individual is placed on the relief rolls. Hence it is important that he be returned to industry at the earliest possible moment.

The State Medical Society having accepted this responsibility now has an opportunity to see whether or not it is practical, and if so, it would seem that this principle can be applied to all compensation insurance cases.

Sincerely yours,

HAROLD A. MILLER, M.D., *Director,
Emergency Medical Relief.*

CONCERNING STATE WORK RELIEF COMPENSATION FUND

No. 328

A Supplement

To the act, approved the second day of June, one thousand nine hundred and fifteen (Pamphlet Laws, seven hundred thirty-six), entitled "An act defining the liability of an employer to pay damages for injuries received by an employee in the course of employment; establishing an elective schedule of compensation; and providing procedure for the determination of liability and compensation thereunder"; defining the liability of public or charitable bodies, corporations and institutions to pay workmen's compensation to persons injured in work relief employment and to carry insurance therefor, and the rights of persons injured in such employment; establishing the State Work Relief Compensation Fund to provide such compensation in certain cases, and providing for the administration of such fund by the State Workmen's Insurance Fund; and making an appropriation therefor.

Section 1. Be it enacted, &c., That when used in this act, the following terms shall have the meanings ascribed to them by this section, unless the context clearly requires a different meaning:

(a) The term "work relief employe" shall mean any person engaged in work for any public or charitable body, corporation or institution, by direction or assignment of the State Emergency Relief Board, or a county emergency relief board, or other agency of the State Emergency Relief Board, in return for cash or commodities furnished by or through the action of the State Emergency Relief Board as unemployment relief.

(b) The term "the act to which this is a supplement" shall mean "The Workmen's Compensation Act of one thousand nine hundred and fifteen," and all supplements and amendments thereto.

(c) The term "work relief employer" shall mean any public or charitable body, corporation or institution employing any work relief employe, as defined in subsection (a) of this section.

Section 2. No compensation shall be payable to injured work relief employes during the first twenty-six weeks of disability: Provided, however, That this section shall not apply to injuries compensable under subsection (c) and (e) of section three hundred and six or section three hundred and seven of the act to which this is a supplement.

Section 3. Work relief employes, as herein defined, are hereby declared to be employes of work relief employers for all purposes of the act to which this is a supplement. Any work relief employer who shall desire to be relieved of this liability to such work relief employe shall pay into the State Treasury the amounts provided in section four of this act. Payments to the State Treasurer of such amounts shall relieve the work relief employer of all further obligation for compensation to the work relief employe, or his dependents, and from obligation to carry insurance for such compensation, and shall exclude such liability from policies of insurance covering other types of employment.

Section 4. Each work relief employer, contributing to the State Work Relief Compensation Fund, shall pay to it twenty-five cents per week for each work relief employe used by such work relief employer: Provided,

however, That the Insurance Commissioner shall, from time to time, review the adequacy of this rate and modify it as circumstances require.

Section 5. The moneys paid into the State Treasury under the provisions of this act shall be kept in a special fund, to be known as the "State Work Relief Compensation Fund." The State Workmen's Insurance Fund shall administer the State Work Relief Compensation Fund, and shall determine the amounts due from each work relief employer, collect the amounts so due, transfer them to the State Work Relief Compensation Fund, and pay out from such fund the amounts due in accordance with the provisions of this act. The moneys of the State Work Relief Compensation Fund are hereby expressly appropriated to the State Workmen's Insurance Fund for the purpose of this act. As compensation for administration of the State Work Relief Compensation Fund, the State Workmen's Insurance Fund shall receive from the said fund seventeen and one-half per centum of the moneys paid from such fund in each month for workmen's compensation, medical, surgical, hospital services, supplies, and funeral expenses.

Section 6. From the State Work Relief Compensation Fund, the State Workmen's Insurance Fund shall pay to injured work relief employes, and their dependents, the benefits and compensation prescribed by the act to which this is a supplement, as modified by this act. Payments of medical, surgical, hospital services, and supplies and funeral expenses may, in the discretion of the State Workmen's Insurance Fund, be paid upon certificate of the work relief employer, as herein defined, when accompanied by a certificate from the county emergency relief board, or other agency of the State Emergency Relief Board, certifying that the injury for which claim is made was sustained in the course of work relief employment. Compensation payments to injured work relief employes, or their dependents, shall be made only upon a final award of a workmen's compensation referee, or the State Workmen's Compensation Board, with or without a hearing. The State Workmen's Insurance Fund shall not be liable to make any payments under this act from any moneys except the State Work Relief Compensation Fund.

Section 7. There is hereby reappropriated to the State Work Relief Compensation Fund from the funds appropriated, or to be appropriated, for the biennium beginning June first, one thousand nine hundred and thirty-three, to the State Emergency Relief Board, the sum of twenty-five thousand dollars.

The said sum shall be repaid to the State Emergency Relief Board from the State Work Relief Compensation Fund, in such installments and at such times as the Insurance Commissioner shall determine, and so much of the moneys in the State Work Relief Compensation Fund as may be necessary are hereby appropriated for that purpose.

Section 8. All acts and parts of acts inconsistent herewith are hereby repealed.

Section 9. This act shall become effective immediately upon final enactment.

APPROVED—The 3d day of June, A. D. 1933.

I am signing this bill only because it is an emergency measure and absolutely necessary to enable work relief in Pennsylvania to be continued.

Under the existing law, all political subdivisions engaging in work relief must carry workmen's compensation insurance. The insurance companies have made a

rate of one dollar (\$1.00) per week per person used in work relief. This rate is absolutely prohibitive.

Under this bill the rate for compensation insurance will be twenty-five cents (\$0.25) per week per employe insured. That will make possible the continuance of work relief.

I realize that the bill provides that compensation shall not be paid until the twenty-seventh week of disability; but during the first twenty-six (26) weeks the injured employe and his family will undoubtedly be cared for by direct relief, so that the long waiting period does not mean that the injured workman and his family will be destitute during that period.

Work relief is so vital during these trying times that nothing dare be permitted to stop it. Therefore, even though I do not like the provisions of this bill, I am compelled to approve it. GIFFORD PINCHOT.

The foregoing is a true and correct copy of Act of the General Assembly No. 328.

RICHARD J. BEAMISH,
Secretary of the Commonwealth.

County Society Reports

ALLEGHENY

Feb. 20, 1934

Ralph Lynch read a paper on "Albuminuria." He noted a small group in which there was albumin but no nephritis. These are apparently well without complaints, the presence of the albumin in the urine having been discovered accidentally on an insurance or other examination. To distinguish orthostatic albuminuria, one considers that this form is thought not to indicate an infection; it can be explained on an anatomic basis, and the albumin disappears if the patient is put to bed. It may be that the kidney vessels are pinched off, or there may be an abnormal angle of the vessels. In other than orthostatic albuminuria there may be increased permeability in the glomeruli, caused by toxin, or it may be seen in congestive heart failure, or febrile conditions.

The significance of orthostatic albuminuria seems to be that it is a matter of no importance. One orthostatic case has become edematous on 2 occasions. Rest cured it. Diet: (1) It has never been proved that protein in the diet damages the kidney. (2) Protein is needed by the body, and the requirement must be met.

The patient should be given a high protein diet. The albuminuria is more or less fixed to the patient. If the protein intake is maintained, it may postpone or prevent the onset of edema or metabolic disorders.

In discussion, W. W. G. MacLachlan noted that orthostatic albuminuria was not uncommon. Some of these cases had been put down as nephritis, but diagnosis is not always easy. Albuminuria is of 2 classes: Those cases related to infection. It may be a manifestation of focal infection; this may be very obscure. The elimination of focal infection does not effect the removal of albumin. It is slow, continuous, chronic, and progressive. (2) Functional disease of the kidney; practically never show changes in the renal function in early cases. Diet: It is essential to have a normal intake of protein to keep from using up muscle tissue. The prognosis may be slight albuminuria for years,

sometimes with the patient perfectly well. Henry M. Ray said that it is fallacious to treat a particular symptom or pathologic finding. An albuminuria is always pathologic. The nitrogen balance must be maintained. There is a constant loss of protein and these persons need protein in their diet. Excessive catharsis does not drive out of the blood nonprotein nitrogen. The amount of nitrogen in a sweat is of no influence on the nitrogen of the blood. Thomas G. Simonton reported 3 cases of orthostatic albuminuria which were cured: (1) A case of an abdominal tumor, which was removed: (2) a case in which the removal of a fibroid the size of a walnut cleared up the albumin; and (3) an ovarian cyst, which on removal caused the disappearance of the albumin. One should look for pressure along the course of the ureter.

Edward J. McCague read a paper on "Surgical Kidney, Clinical Manifestations and Management." This is a report of 952 cases of renal infection. There were 355 males and 597 females. The average age was 37. The symptoms are: Pain, hematuria, pyuria, disturbances of micturition, and abdominal tumor. There may be great destruction of tissue without clinical symptoms. Frequent micturition was the outstanding clinical symptom. Stasis is a most important factor in the nontuberculous kidney. Many kidneys thought to be completely destroyed have been restored to normal by the removal of pressure. Many cases which in the past were treated by radical measures are now subjected to conservative treatment by the removal of obstruction. The obstruction may be due to any cause. In women it may be seen in cases of pelvic inflammation. It may range from a mild hydronephrosis to complete destruction. There may be lumbar pain, nausea, and vomiting. The vesical symptoms are not as constant as in tuberculosis; they are more intermittent. There are pain and constitutional symptoms.

Renal tuberculosis: This is grave by its lingering chronicity, and goes on to complete destruction of the kidney. The lesion is always secondary to pulmonary tuberculosis, or bone or glandular tuberculosis. The tendency to healing seen in pulmonary tuberculosis is absent in the renal form. It sets up a process in the bladder. It will become bilateral in 3 years. In 130 cases the duration of the disease was from 6 months to 7 years. There is frequent and painful urination, nocturnal and diurnal. There is early slight nocturia, and the diurnal frequency follows. Twenty-eight cases in the series had bilateral involvement. They are hopeless, and drain into the flanks. Renal tuberculosis is surgical from the start.

Diagnosis is made on frequent and painful urination in a young person, aciddiuria, from the cystoscopic findings, and from a pyelogram.

Treatment: Essentially surgical. Operation should be followed by the best of aftercare. Most cases are relieved of bladder symptoms after operation. Some resist any form of treatment, which may be due to bladder or ureteral involvement. By correcting the obstruction in pyogenic lesions these may be relieved. In tuberculosis the prognosis is good in 50 per cent.

In discussion, Robert L. Anderson said that incipient surgical kidney is part of the pyogenic type. There was a time in these cases when diagnosis would have saved the kidney. Fifty per cent of the cases of obstruction in the urinary apparatus at some time become pyogenic. Normally the pelvis of the kidney should contain very little urine. An amount over 10 c. c. shows kidney damage. The intermittent type (usually stone) does the most damage. The order of occurrence is

pyogenic, obstructive, tuberculous, and tumors. In treatment of tuberculosis of the kidney nephrectomy often is done on one side in spite of infection on the other side. Elevation of the nitrogen in the blood in cases of obstruction means uremia with or without anuria. Prevention in kidney disease depends upon early diagnosis.

In discussion, David L. Simon said that careful examination of the urine will lead to diagnosis. Some of the newer drugs may have antiseptic action, but they will not clear up obstruction.

"Some Effects of the Economic Depression on Mental Health," by Charles H. Henninger. The depression has shown effects on home life, for employment is essential to normal mental and physical life. The extraneous in age have suffered most. There is apprehension and mental depression in the old, possibly a psychosis. The employer must of necessity select from a younger age group. It should be remembered that unemployment and relief are not distasteful to some of the unemployed. Some of the unemployed improve themselves. Supplying the physical needs is not enough. They get feelings of inferiority tending to an anti-social stage. The tendency to moral delinquency has been increased. The suicide rate has increased to a high figure. It is estimated that there is one suicide every 25 minutes in the United States. One of the most important aspects is that due to melancholia which is considered normal because of the depression. Many cases were precipitated by the depression, and all those depressed are potential suicides.

Children see and respond to the family moods. The future results of the mental impairment in undernourished children cannot be estimated. Begging by children is not good. Child labor is bad. Adolescents have gone to the highways in some cases, and wander from place to place. There are many wanderlust cases. As to the increase in crime, not all cases are due to criminals, as some are caused by want. Judges should understand criminals as well as crime. Not all reactions have been detrimental to mental health. The efforts to meet the situations of the depression have made for greater tolerance and much knowledge.

In discussion, Harold L. Mitchell said that the effects on the mental health will be greater than that of the war. This has affected a different class—children, elderly men and women. In the World War it was the young men and the middle-aged. National pride in the war was a sustaining emotion. There is bound to be a detrimental and far-reaching effect on the next adult population. The sturdy will be strengthened and will form nuclei for a more robust and healthy type of American manhood and womanhood. The depression may have a retarding effect on the desire for higher education. Three hundred thousand college graduates of the past seven years are unemployed.

March 20

The meeting was devoted to the discussion of the present epidemic of psittacosis in Pittsburgh. The paper on the subject was read by I. Hope Alexander, who said in part: The cause of this disease remains unknown today. It is supposed to be a filtrable virus, but, for the present, a positive etiology is unknown. In 1917, there were many cases reported as ill of psittacosis in Wilkes-Barre, Pa., with one death, and no mention is made of any necropsy findings. Later there was a small epidemic reported in New Castle, Pa. The number of patients and deaths he is unable to give.

In December, 1929, there were many cases of psittacosis reported throughout eastern United States. The first case discovered in the Pittsburgh area was by C. A. Rogers, of Freeport, Pa., who reported 3 cases, with one death. A report of these 3 cases, together with the pathologic findings, appeared in the *Annals of Internal Medicine*, September, 1930. He considers this report the most comprehensive presentation on this subject to be found in medical literature. The pathologic findings are the only positive methods of diagnosis.

During the epidemic of 1929 and 1930, he saw 2 patients in whom the diagnosis of psittacosis was made. These patients were husband and wife. They had been on a trip to Central America and had returned with 4 parrots. Soon after reaching Pittsburgh, one of the parrots died and shortly afterwards the wife became acutely ill presenting the characteristic findings of psittacosis. She ran a rapid course to a fatal termination. A necropsy was made. The husband became ill shortly after the wife became ill, and, after a very long convalescence, recovered. There were many cases of psittacosis reported at that time, but only a very few died; in view of the fact that no necropsy findings are recorded in the majority of these cases, there was no positive information that all these patients had psittacosis.

The diagnosis of this disease is difficult, and unless a patient comes to necropsy, an absolutely positive diagnosis cannot be made. There are many patients at this time who have been exposed to sick parrots, but it is impossible to say how many of these patients are actually suffering from psittacosis, and, of the patients who have died, where no necropsy study had been made, a positive diagnosis of psittacosis was impossible.

The usual course of a patient suffering from this disease has shown a great similarity of symptoms and clinical course in all the epidemics described throughout the world.

The usual history of exposure to sick birds: It has been believed that the disease is transmitted from bird to patient and in only a few instances does the history suggest that one patient contracts psittacosis from another, but, the Laboratory of Hygiene in Washington, D. C., has reported that 8 out of 11 cases found there in 1930 had never been exposed to sick parrots and, while the mode of transmission is unknown, it is probably through a contaminated environment.

The outstanding symptoms and physical signs of this disease, as a rule, show a very sudden onset, with a severe chill, extremely high temperature, a pulse, which early in the disease is out of proportion; later in the course the pulse becomes more rapid, severe nausea and vomiting are usually associated with the onset, a severe occipital headache is the rule, cyanosis may or may not be present, but a marked delirium, in the fatal cases, is an early symptom. In other words, the patient presents many manifestations of an extremely toxic infection. The majority of the cases have a severe cough from the onset, but seldom is this cough productive. The physical signs of pulmonary consolidation are usually delayed for several days and when found are those of a diffuse bronchitis, with areas of bronchopneumonia. A pleural friction is seldom found. Enlargement of the spleen frequently has been reported. Laboratory methods contribute but little in making the diagnosis.

All cases do not show this sudden onset. Many will give a history of being moderately ill for several days, complaining of malaise, headache, moderate temperature, slow pulse, nausea, with vomiting and other symptoms frequently found in typhoid fever. They may continue

throughout the course with these typhoid symptoms; others, after a period of several days, suddenly change to the course previously noted.

In the present epidemic, he observed the first patient with psittacosis in whom the diagnosis was later confirmed by necropsy. On March 3, 1934, he was informed that 7 patients on the same floor of a Pittsburgh department store had died of pneumonia and that several employees from this same floor were at home with the same disease, many of them not expected to survive; and that parrots were kept on this same floor. As there was no epidemic of pneumonia in Pittsburgh at this time, the question of psittacosis was to be given serious consideration. The following day he was called in consultation to see the assistant manager, of this same store. A diagnosis of pneumonia had been previously made by the attending physician, in which Dr. Alexander concurred. This patient died 30 hours later. A necropsy was done. The situation was reported to Dr. Moyer, Director of Health, on March 5, and on the following day to Walter F. Donaldson, requesting that some mention of this situation be made in the *Bulletin*.

Psittacosis, if once recognized, is not difficult to control. They had quarantined all cases of pneumonia, so the present victims of psittacosis were not an important factor in the spread of the disease. All that was necessary was the elimination of all parrots—not only those that present evidence of being ill—but all birds that have been exposed to infection, and, had this plan been carried out several weeks before, the prevailing epidemic would not have occurred.

Dr. Alexander strongly recommended to the Director of Health that suitable legislation be secured at once preventing further importation or sale of any of the parrot family.

Robert C. Hamilton submitted the pathologic reports of 2 patients dying from psittacosis. During the epidemic he had the opportunity of performing necropsies on 2 cases of psittacosis. The first case was the one that Dr. Alexander presented. The other case, K. D., was a white female, aged 57, who died 14 days after the first symptoms appeared. Both were employees of the same department store and both had a clinical course such as Dr. Alexander described.

At necropsy the only distinct pathologic changes in psittacosis are those observed in the lungs. The other organs show only acute parenchymatous degenerative changes such as one would expect to find in any acute infection. To conserve time, my remarks will be limited to the findings in the lungs.

The general picture seems to be one of septicemia accompanied by distinctive lung changes. The pulmonary lesion may be either lobar or lobular in type and the predominating cell in the alveolar exudate is the phagocytic mononuclear leukocyte. These cells were formerly thought to be degenerated and desquamated alveolar epithelium but today most of the investigators agree that they are mononuclear phagocytes of the reticulo-endothelial system. Probably the only distinctive pulmonary lesion in psittacosis is the hypertrophy and hyperplasia of the alveolar epithelium. This process is not seen in other acute pulmonic inflammations and is probably the only diagnostic feature.

Preceding the papers and discussion of the psittacosis epidemic, the Allegheny County Medical Society annual case report award was made to George C. Schein, who was then an intern at South Side Hospital, the subject of his paper being "Chronic Otitis Media—A Dormant Volcano."

GEORGE R. HARRIS, *Reporter*.

BRADFORD

April 9, 1934

The meeting was held at Sayre. The Society had as its guest for the day, Robert S. Dinsmore, Jr., of the Crile Clinic, Cleveland.

The morning session started at 9 a.m. with a surgical clinic at the Robert Packer Hospital, by Donald Guthrie and his associates, several patients with various types of thyroid disturbances were operated upon; also others showing gallbladder disease, duodenal ulcer, appendicitis and fibroids. The case histories of all these patients were reviewed, and Dr. Dinsmore discussed several of them from important surgical standpoints.

Luncheon was served at the Minaphe Inn, with an attendance of 30 members and guests.

The afternoon session began at 2:30 p.m., and was held in the Library of the Guthrie Clinic, there being an attendance of 75, President Rodney Stedje in the chair.

The first hour of this session was devoted to the presentation of patients by Stanley D. Conklin, showing the following types of goiter disturbances: Cretinism, simple adolescent goiter, large colloid goiter of adolescence, exophthalmic goiter, pregnancy and hyperthyroidism, recurrent goiter showing postoperative tetany, severe exophthalmic goiter requiring two-stage operations, and an extreme intrathoracic thyroid. A brief history of each case was given, and Dr. Dinsmore discussed the essential things each patient demonstrated.

Dr. Dinsmore gave a general talk on "Goiter," using lantern slides. He urged the use of thyroid extract for the cretin and emphasized that the dosage must be sufficient, usually being 2 to 3 grains a day. As regards iodine, he distinctly pointed out that its chief employment should be limited to the preparation of the toxic goiter patient for surgery. He did not believe in the attempt to control toxic goiter states by the long continued administration of iodine. Also he did not believe in the use of iodine postoperatively, only for a few days. Practically all the cardiac irregularities disappear following thyroidectomy, and an irregularity is not a contraindication to surgery if the patient had been properly prepared. The importance of carefully studying the patient was emphasized. The necessity of taking roentgenograms to rule out substernal goiter as a cause of chronic cough, so-called asthma, and bronchitis, was clearly demonstrated.

STANLEY D. CONKLIN, *Reporter*.

BUCKS

May 9, 1934

The meeting was held at the Travel Club Home, Bristol, with 27 present. Dinner was served. President Harvey P. Feigley in the chair. J. Stewart Rodman, professor of surgery, Woman's Medical College of Pennsylvania, delivered an address on "Indigestion—Its Surgical Significance." He said in part that though indigestion was essentially a medical subject, that many surgical conditions presented indigestion as a first and outstanding symptom. Indigestion may be of functional origin, it may originate from disease within the gastro-intestinal tract or in organs closely associated with digestion, or it may be caused by pressure or disease in other organs. Among the potentially surgical conditions which may have indigestion as an initial symptom are gastric ulcer, duodenal ulcer, carcinoma of the stomach, syphilis of the stomach (usually med-

ical), very marked ptosis of the stomach, cholecystitis, cholelithiasis, appendicitis, chronic pancreatitis, carcinoma of the pancreas, diverticula of the intestines, and tumors of the intestines. Chronic gastric ulcer along the lesser curvature is treated best by partial gastrectomy with or without gastro-enterostomy. Chronic pyloric ulcer is treated best by pylorectomy. If ulcers can be readily removed at operation, it is well to do so on account of the possibility of development of cancer on an ulcer base. Though opinion has changed regarding the number of ulcers which undergo malignant degeneration, even the most conservative state that it does occur. Formerly it was considered that approximately 75 per cent of ulcers became cancerous. Present estimates vary from 9 to 25 per cent. Duodenal ulcer, though it usually lends itself readily to medical treatment, may require gastro-enterostomy.

About 90 per cent of cases diagnosed as gastric cancer before operation are found at operation to be inoperable, caused not so much to delay in surgical treatment as to the late appearance of symptoms in cancer of the stomach. Syphilis of the stomach in an advanced stage may necessitate jejunostomy to keep the patient from starving while antisiphilic treatment is being given to produce a cure. Although cholecystectomy has in recent years been much preferred to cholecystotomy, the pendulum has swung too far and many elderly individuals with poor myocardium are more wisely treated by cholecystotomy. Surgery must be first life-saving and then ideal. So-called chronic appendicitis should be thoroughly investigated before operation is undertaken. Unless there is a definite history of an acute attack or attacks in the past, other causes should be looked into. Slides were shown.

Letters and inquiries have recently come to the society from persons representing the Red Cross and other nursing services, inquiring concerning the attitude of the society in reference to health examinations of pre-school children. Otto H. Strouse made a motion that a letter be sent to the Red Cross indicating our desire that they continue to coöperate in all matters pertaining to the health of the county. It was the consensus of opinion that where organized groups are already conducting pre-school health examinations the same should continue. The members of the society are always glad to coöperate in rendering such services in their individual offices.

President Feigley, in order not to duplicate committee work, asked the Emergency Child Health Committee, with the addition of Claude L. Taylor from the middle section, to serve as an advisory committee to the Red Cross Nursing service of the county. The committee consists of: J. Fred Wagner, chairman; Claude L. Taylor; Clyde R. Flory; Michael J. Hurley; and Mary E. Lehman.

J. Fred Wagner was elected delegate to the State Medical Society meeting, with Allan Moore and Otto H. Strouse as alternates.

MARY E. LEHMAN, *Reporter*.

CENTER

April 29, 1934

The Emergency Child Health Committee reported that action regarding child welfare was almost complete in Philipsburg and was being organized in other parts of the county. The field workers' report is to be complete in detail, also the doctor's report.

The Medical Advisory Committee reported that the Committee meets once a month to go over the bills

turned into the Emergency Relief. Bills seem satisfactory but must be complete to avoid delay. A second order at the end of 2 weeks should be provided for the needy chronic case.

President Dietterich read a letter of the Maternal Center Association, and appointed a committee, as follows: Richard H. Hoffman, Paul M. Corman, and Owens.

A discussion concerning the action of the State Board of Nurses' Registration in attempting to remove the Nurses' Training School from the Center County Hospital was held. It was moved that the Center County Medical Society go on record as being opposed to the method of selection and control of the present State Board of Nurses' Registration, and recommended that the board be investigated by the State Medical Society, and that the delegates to the State Society Meeting be instructed to bring the matter of the control of the board to the attention of the House of Delegates. It is felt that the Nursing Board should be under the control of the State Society. There is considerable opposition to this board throughout the State and the secretary of the Center County Medical Society should get in contact with Hospital Associations hostile to its dictatorial actions, with the view of more active organization against it.

LEROY LOCKE, *Reporter*.

CHESTER

April 17, 1934

The meeting was held at the Chester County Hospital, at 2:15 p. m. with Dr. Davis in the chair. Luncheon was served. The Executive Committee recommended that the society take an active part in the campaign against appendicitis, and reported that the physicians have wholeheartedly supported the Tuberculosis Campaign now being conducted in the County. The abuse of State Laboratory facilities by patients well able to pay was discussed at some length, and the society unanimously deplored such abuse. It was decided that all preschool health examinations shall be conducted in the private offices of the physicians of the county; each physician may set his own fee, but the minimum for patients able to pay should be \$1.00.

The scientific part of the program was presented by the staff of the Chester County Hospital. Frank H. Wells spoke on the "Use of Nembutol in Obstetric Work." He stressed the fact that practically no ill effects had been noticed in the use of this drug at the hospital. U. Grant Gifford presented a case of coronary thrombosis. Charles M. Kerwin gave an illustrated talk on the "Use of Transurethral Prostatic Resection." Dr. Orr presented a case of "Open Reduction of Dislocation of Both Hips," illustrated by roentgenograms showing the exact location of the new acetabulum. Dr. Clark presented a report of necropsies performed at the Chester County Hospital, specimens being presented by I. P. P. Hollingsworth. Robert T. Devereux presented a complete summary of the nutritional survey of Chester County made last summer.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DAUPHIN

May 1, 1934

The meeting was held in the Academy of Medicine. President E. Kirby Lawson presiding. Francis Chambers, surgeon at the Elizabethtown Hospital for Crippled

Children, was the speaker. This hospital is under the jurisdiction of the State Department of Welfare. The nurses are taught how to prevent deformities in cases of anterior poliomyelitis. Contractures form quickly so mobilization by splinting the involved limb is introduced. Patients are then advised by these nurses to start hydrotherapy as soon as possible after the acute symptoms have subsided. There are 2 State-owned pools, at Mt. Alto and Cresson, in which hydrotherapy treatments are given.

These cases should never be treated by an osteopath or chiropractor. The inflammation will subside around the horn cells in 5 to 8 weeks in the first stage, then the cells may recover part of, or all, their function, under proper care. Some are permanently damaged, however, and will never recover function.

Poliomyelitis patients should have full range of all their joints. The early cases require a firm, hard bed, or an ironing board will answer the purpose for fixation. When necessary to use hydrotherapy the whole board can be immersed in water at 90° F. Never massage while pain is still present. When massaging do it deeply but painlessly. Squeeze out venous blood and allow arterial blood to flow in.

Do not keep limbs in plaster casts longer than 4 weeks without passive motion, but early activity is faulty. The abdominal and intercostal muscles are often so paralyzed that a spinal scoliosis often results even with the use of braces. In fact 50 per cent of the cases of scoliosis result from anterior poliomyelitis.

In tuberculous joints conservative treatment should be the rule, since this is but a local manifestation of a general disease. In the very young a firm bed and some form of traction may give a movable joint as a result. Braces and crutches should be saved for the terminal or reparative stage.

Congenital dislocations of the hip should be treated early. Bow legs are a pediatric problem and the majority correct themselves.

SAMUEL B. FLUKE, *Reporter*.

ERIE

May 1, 1934

The meeting was held in the Hamot Hospital auditorium, Frank B. Krimmel presiding. Robert P. Dobbie, of the University of Buffalo, delivered an address on "Gallbladder Surgery."

He reviewed 312 biliary-hepatic tract operations performed during 1932 and 1933; 16 surgeons participated, with an average mortality rate of 7.3 per cent. The rate apportioned to the general surgeons in the group was 8 per cent, a figure only slightly above that assigned to the specialists in this branch of surgery.

Eighty-five per cent of the cases were in women, without a higher ratio in multiparæ than in unmarried women. Potter was said to have aspirated the gallbladders of 500 primiparæ at term, in connection with cesarean operation; only one calculus was found.

Pain was a conspicuous complaint in nearly every instance, with some type of indigestion complained of in 85 per cent. Jaundice had been present in one-third of cases. This manifestation is better thought of as a complication than a symptom, and if coupled with the duration of symptoms represented a fairly good prognostic index. The longer the duration of symptoms, the higher is the operative risk.

Roentgenographic study aided the general examination in the correct analysis of cases, with the report

of a disease process much more accurate than a report of a negative gallbladder.

Cholecystectomy was performed in 70 per cent of cases, with a mortality of 6 per cent as against 5.7 per cent in cholecystostomy done routinely as an elective procedure. Males were 4 times as likely to succumb to gallbladder surgery as females. The cases complicated by cystic or common duct stone, or by perforation, were fatal in 14 per cent, only 4.5 per cent of the uncomplicated cases dying.

Ford Eastman, Erie, in opening the discussion, urged the operation of the early cholecystic case, because of the lessened mortality and morbidity. He expressed the belief that most of the unexplained deaths are due to hemorrhage unrecognized.

Harrison A. Dunn, Erie, thinks that some gallbladders do not need to be removed for cure of the patient, that some gallbladders cannot be removed because of the risk involved, therefore that cholecystostomy has a place. Maxwell Lick, Erie, stressed the value of an adequate history and careful physical examination in arriving at an accurate diagnosis. The cardiac death is too frequent in biliary tract surgery, and proper pre-operative care should be followed out in every case.

RALPH D. BACON, *Reporter*.

FAYETTE

Feb. 1, 1934

The meeting was held in the Uniontown Hospital with L. Dale Johnson presiding. The meeting was in charge of John D. Sturgeon, Jr., and William A. McHugh who presented 5 cases of hypertrophic pyloric stenosis, 3 treated medically and 2 surgically. Dr. Sturgeon read a paper dealing with the clinical aspects of the subject. He said in part: Hypertrophic pyloric stenosis always should be suspected in young infants with propulsive vomiting. The usual age for the beginning of symptoms extends between the second and fourth week. Hyperperistalsis can usually be demonstrated. A palpable tumor frequently can be felt slightly to the right of the midline in the right epigastrium. These symptoms are usually present in a dehydrated starving child if persistent for any length of time. The treatment consists of thickened and forced feedings combined with the use of atropine and phenobarbital.

Dr. McHugh discussed the surgical aspect of hypertrophic pyloric stenosis. He said in part: The choice of treatment lies between medicine and surgery. The medical treatment is occasionally sufficient. If the patient becomes progressively worse, the surgical treatment is the method of choice with a high percentage of good results. Preoperative treatment depends upon the severity of the case and early diagnosis. It frequently consists of hypodermoclysis, gastric lavage, and occasionally transfusion in severe cases. The anesthesia usually consists of local combined with ether and nitrous oxide. Ramstedt's operation is most effective. The complications when present are usually hemorrhage, peritonitis and very frequently pyrexia. The feeding usually consists of 50 c.c. of water every 2 hours. If no vomiting is present, the child is put to the breast or fed milk in 24 hours. Mortality is only one-third that of artificially fed babies as in breast fed.

March 1

The meeting was held at the Uniontown Hospital. Elliott B. Edie, of Uniontown, read a paper on "Spon-

taneous Hyperinsulinism." Two patients were shown who described their symptoms when suffering from an attack. A report was given on other patients describing the result of reducing weight, anorexia, and missed meals on account of work or amusement. Dr. Edie discussed in detail the physiology of hyperinsulinism, its relation to the other ductless glands of the body and the mechanism of lowering and raising the blood sugar. The symptoms of weakness, hunger, tachycardia, vertigo, convulsions, amnesia, stupor, and even angina pectoris were found present in many cases. The differential diagnosis usually is between epilepsy, psychoneurosis, and hyperinsulinism. Treatment usually consists of a low carbohydrate diet at frequent intervals. The aspect of the laboratory work in spontaneous hyperinsulinism was discussed by Herman A. Heise, pathologist of the Uniontown Hospital.

Arthur D. Hunger, of Point Marion, read a paper on "Dilute Hydrochloric Acid. Intravenously." The usual method of injecting the hydrochloric acid is 10 c.c. of a 1:1000 solution, every second or third day. There were no ill effects. Its use was stressed in asthma, rheumatoid and osteo-arthritis, migraine, fistula-in-ano, and cystic thyroids. Dr. Heise reported that hydrochloric acid injections had very little effect on the leukocytes. A general discussion of the medical relief work followed.

RALPH LIONEL COX, *Reporter*.

LACKAWANNA

March 27, 1934

President Walter W. Propst presided. Carl E. Ervin, chief of the medical service, Geisinger Memorial Hospital, Danville, read a paper on "The Practitioner's Approach to Infections of the Urinary Tract." He said in part:

Too many genito-urinary cases are handled as urinary tract infections, *per se*. This is a very short-sighted policy, for they must be considered most frequently as resulting from infections elsewhere in the body. Lack of unanimity in the diagnosis and correct treatment of such conditions is largely due to a failure in the classification of these infections. The very successful method of classifying heart disease, adopted by the American Heart Association, may, with some modifications, be applied to urinary tract infections, as: *A. Etiologic*: 1. Organic; 2. source; 3. augmenting factors. *B. Anatomic involvement*. *C. Functional derangement*. Applying the classification in the case of a woman with urinary tract infection which finally resulted in nephrectomy: *A. Etiologic*: 1. Streptococcus (organism); 2. chronic tonsillitis (source); 3. pregnancy (augmenting factor). *B. Anatomical*: Pyelonephrosis. *C. Functional*: Dead kidney.

After a diagnosis of urinary tract infection is made, it is next necessary to find the source, before exact treatment can be instituted. One must search systematically and consider all possible locations. Orally, may be found acute or chronic tonsillitis, frequently nonsymptomatic, and the gingival infections. The teeth may show periapical infection or developmental defects. Other respiratory tract foci of infection include the nasal accessory sinuses, chronic tracheitis and bronchitis, and bronchiectasis. Urinary infections may be frequently traced to chronic osteomyelitis or any chronic suppurative process.

The manner of onset of the infection may be acute, as that following scarlet fever or a respiratory infection, or insidious, resulting from a chronic focal infec-

tion. In the focal reaction, caused by the presence of live pathologic organisms, there may be: An interstitial reaction from massive doses; metastatic abscesses; tuberculosis of the glomeruli; pyelonephritis; renal infarcts. The generalized reaction, caused most frequently by endotoxins liberated by a lysate of the host, results in an acute or chronic diffuse glomerulonephritis. There is a very high incidence of focal infection in those patients with renal calculi, particularly of the periapical, dental, or tonsillar type. Neglect of these conditions, before or after nephrectomy or removal of stone, frequently results in recurrence. There is no recurrence of calculi, if there has been a careful search and removal of all sources of focal infection.

Clinical and laboratory study of these patients should include: Complete urinary studies with Addis' counts; blood chemistry (blood proteins and nonprotein nitrogen); urea clearance test; dye elimination of phenol-sulphonaphthalein; and Mosenthal concentration tests. Actual impairment of renal function shows up only late in the disease. The urea clearance test of van Slyke is the only accurate method to show early impairment. Nephritis (except in the cases of actual damage, such as metallic poisoning) should be regarded as symptomatic of infection existing elsewhere in the body.

General treatment includes: Removal of the cause in acute cases—of less value in the chronic; keep the patient at rest as long as the urine shows red blood cells; do not restrict the diet, with a possible exception of the very early and the very late stages; try to keep the blood proteins at the normal level; and take care of the attendant secondary anemia. Early in the disease, it is well to restrict the diet to fruit juices for 2 or 3 days and then supply a normal balanced diet. The protein-free diet is of real use only in cases of frank uremia. Recent studies on numbers of cases of nephritis have shown that ordinary diet has little effect on the level of nonprotein nitrogen of the blood with the exception of the very acute stage and in actual terminal uremia. Dietary protein is absolutely necessary if the level of serum protein, depleted by albuminuria, is to be maintained and further depletion prevented.

The hard, nondependent nephritic edema marking the onset or an acute exacerbation of the disease requires careful treatment. Therapy should include rest; external heat; salt-poor diet; and appropriate sedation. The soft, dependent type of edema is generally due to serum protein depletion, which must be made up by diet or by transfusion.

In discussion, Prof. Richard Bauer, of Vienna, said that in some instances it is not safe to tonsillectomize cases of acute nephritis. Occasionally an acute uremia may result. During the War, there was a marked increase in nephritis, so much so that there were hospitals founded in Vienna for nephritics, alone. Before the War had ended, nephritis had almost entirely disappeared. Most patients must be treated for long periods, some, while apparently in good health, show a few red cells in the urine for a year or more after the end of the acute period. Severe dietary régime is a mistake in any disease. It may be good for the diseased organ, but it is hard on the patient. If a patient objects constantly to a method of treatment, he is frequently right, and the therapy wrong.

April 3

Ralph T. Tyson, professor of pediatrics at Temple University, Philadelphia, held a largely attended clinic at the St. Joseph's Children's Hospital. In the evening

he read a paper on "Diseases and Problems of the New-born." He said in part: We are not making any great strides in our handling of the newborn infant. Our general experience has been similar to that of New Zealand in which all improved methods have not materially changed the infant mortality rate. My own studies take in the period of the past 10 years.

The first major problem with the newborn child is proper nutrition in the days immediately following birth. The average birth weight is 112 to 120 ounces, the better economic condition of the mother, the greater the weight. Children of multipara weigh more than those of primipara. The heaviest children are born of mothers below age 20 or over age 30. The average weight loss following birth is 6 to 8 per cent. Of the large babies, 55 per cent regained birth weight during their hospital stay; of the small babies, 63 per cent regained birth weight. The average time required to return to birth weight is $8\frac{1}{2}$ days.

It is necessary to urge breast feedings with plenty of water between nursings, if the child is to gain weight. The slowest pick-up in weight was seen in those infants in whom operative procedures are found necessary. Recent studies have supported the theory that many newborn babies are in a state of surgical shock. As Kugelmass has shown, such infants demonstrate a symptom-complex characterized by disturbed consciousness, subnormal temperature, diminished rate of blood flow, low blood pressure, and low blood sugar. This condition as well as the slow pick-up in weight may be remedied by the use of a "hydrating solution," containing sodium chloride and dextrose, which is given every 2 hours, night and day, as much as the child will take.

The average birth temperature is 99.8° F. Vernon has shown that infants delivered under ether anesthesia have a temperature of 96.8° F. at birth and remained subnormal at as low a temperature as 95° F. for 5 hours. Because of this, it is extremely important that the newborn infant be placed immediately in a warm receiving crib. In the large series of cases which Dr. Tyson reported, 11.8 per cent developed a fever, the incidence being highest in the private cases. Fever was taken to be a rectal temperature of 100° F. or above, and the average day of occurrence was the third day of life which was also the day of lowest weight. The most frequent cause of fever was dehydration, followed in order of incidence by birth injury, infections, overheated beds, and unknown causes.

Cyanosis is frequently seen on the larger services. The causes of this condition, in addition to the type seen immediately upon delivery, are: Atelectasis, congenital heart diseases, convulsions, enlarged thymus, prematurity, vomiting, malformation of the jaws, tetany, intracranial hemorrhage, adrenal hemorrhage, and acute respiratory infections. Treatment of the initial form of cyanosis includes: Clearing the upper respiratory passages of mucus; maintenance of body temperature; gentleness in every method of treatment applied; gentle stimulation of the skin; gentle mouth to mouth insufflation; injection of alphanobeline; gentle artificial respiration; and use of the infant respirator with a mixture of 90 per cent oxygen and 10 per cent carbon dioxide.

In this series of 2250 cases, intracranial hemorrhage was diagnosed in 1.9 per cent. It was listed as the cause in 32 per cent of all infant deaths. The life of the infant is in danger particularly when active labor has proceeded over 2 hours in the second stage. Only 0.8 per cent of the cases of intracranial hemorrhage which terminated fatally were seen in spontaneous deliveries, whereas the incidence was 2.3 per cent with forceps

delivery, 7.6 per cent in versions, and 13.6 per cent in breech extractions. The predominant symptoms of intracranial hemorrhage are fretfulness, poor sucking, poor swallowing, and cyanosis. The most frequent cause of hemorrhage is tear of the tentorium. Even after a very severe intracranial hemorrhage there may be complete recovery with no residuals.

Too little attention is paid to the preparation of the mother for breast feeding. This preparation should include the biochemical, mechanical, and psychic factors. Biochemical factors consist mainly of the proper dietary: milk, vegetables, eggs, fruit, meat, and the vitamins. Mechanical cleansing and massage of breasts and nipples should be instituted early in pregnancy to preclude difficulties later during the puerperium. Maintaining the morale and interest of the pregnant woman as well as providing her with proper instruction is of self-evident importance. During the puerperium, establishment of a feeding schedule at times becomes a real problem. On a busy maternity ward it is extremely difficult to maintain a 3-hour schedule. It has been shown that for routine hospital work, the baby does practically as well on a 4-hour schedule. The baby at breast gets practically all the nourishment in the first 10 minutes. At times, complemental feeding is of great value. This is true if the weight loss is excessive and if the breast milk is very slow in coming in, but is never given in the first 3 days. It is given until there is a normal weight increase and a normal stool. The complemental feeding is given as 6 feedings of 3 ounces each, the formula: Boiled whole milk, 6 ounces; boiled water, 12 ounces; and, one tablespoon of lactose. This is given after the breast feeding.

April 10

The guest speaker was Robert C. Dinsmore, of the Crile Clinic, Cleveland, Ohio. His subject was: "The Management of the Patient with a Diseased Gallbladder." Dr. Dinsmore said in part: In the treatment of acute cholecystitis, it has been the general opinion that early operation was imperative. Within the past year, there has been much discussion and controversy whether it is not preferable to wait 3 or 4 days until the acute stage is over and then to do a cholecystectomy. If one waits, rupture of the gallbladder may occur. For this reason, most surgeons believe that operation should immediately follow diagnosis. Upon decision to operate, the question of removal or drainage arises. Elderly patients with deep jaundice should always be drained. The mortality rate is much lower following cholecystostomy than in the cases of actual removal of the gallbladder.

Cholecystography is now 11 years old and has contributed much to the knowledge of diseases of the biliary tract. In our enthusiasm we have forgotten many of the known points of diagnosis, which the roentgenologists have re-taught us. The roentgenogram often shows the shadow of a distended gallbladder, producing a characteristic deformity of the duodenal bulb, at times accompanied by the shadows of a nest of calculi. There may be, at times, so great a pressure accompanied by adhesions from the chronic inflammation, that partial obstruction may result at the duodenum or pylorus.

Malignancy of the gallbladder forms 5 to 6 per cent of all reported carcinomata. Of these, 80 per cent occur in women, with the greatest incidence in the fifth and sixth decade. It is interesting to note that 69 per cent of all cases of biliary tract malignancy had an antecedent history of attacks of gallstone colic.

One must always exclude coronary disease in the differential diagnosis of acute cholecystitis. Coronary thrombosis is a frequent cause of death within 24 hours of a cholecystectomy. In acute gallbladder colic, the patient is doubled up with excruciating pain, radiating to the scapula and followed by tenderness in the gallbladder region. The patient is never quiet and a quarter or half grain of morphine sulphate may be necessary to relieve pain. There are seldom cardiac complications. In coronary disease, the patient is quiet, "frightened to death." There is peripheral vascular change, weak pulse, drop in blood pressure, and grayish pallor. Relief from the pain generally requires repeated hypodermic injections of morphia, necessitating three-fourths to a grain of morphine in a short period.

After the removal of the gallbladder, should the common duct be explored? Lahey explores all cases and frequently has found small calculi. Allen Whipple believes that this should not be done unless there are very definite indications. Such manipulation may result in stricture of the common duct. Drainage is absolutely essential after cholecystectomy, whether there is a dry bed or not. Bile peritonitis is most difficult to recognize. It appears in 5 to 10 days after the operation. The abdomen may be flat and soft, but the temperature is elevated and there is a weak, thready pulse. The mortality rate is high.

If at all possible, medical treatment should be attempted before surgery is decided upon. Frequent feedings of half milk and half cream may give no discomfort, whereas fried and fatty foods may precipitate an attack. Some patients are relieved by the Lyon drainage. Many have a pylorospasm which is relieved by the ingestion of olive oil. Most of the proprietary products contain phenolphthalein and coal tar products which are definitely harmful. The best cholagogues are the bile salts themselves.

In discussion, Jonathan M. Wainwright said the roentgen department becomes daily a more and more important part in surgical diagnosis. It is not sufficient to learn the roentgenologist's report, but his personal opinion should also be valued. If possible, he should make a personal examination of the patient and be supplied with a complete history of the case. If this is done and we have complete coöperation between surgeon and roentgenologist, then we will be able to get much further ahead with the diagnosis and treatment. J. Norman White said he does not wait once a diagnosis of acute cholecystitis has been made, as the gallbladder wall is entirely too thin for anyone to take a chance and delay operation. One of the most difficult diagnoses is to distinguish between acute gallbladder colic and acute pancreatitis. Herbert B. Gibby, Wilkes-Barre, urged that when the diagnosis of acute cholecystitis is made immediate operation is imperative. Gangrene of the gallbladder in such cases is frequent and early. Surgery of the bile ducts generally results in stenosis or stricture, unless the duct is anastomosed into the duodenum.

April 17

The members of the local society had a pleasant surprise when the scheduled monthly business meeting was transferred from the usual meeting place in the Chamber of Commerce to the Crystal Ballroom of the Hotel Casey, President Walter W. Propst presiding. It was announced that this special meeting had been called by the house committee in order that the 30 young physicians who had affiliated with the Lackawanna County Society in the past 2 years might be officially welcomed into its ranks. Each new member was introduced, after

which a buffet supper and smoker was given; 150 members were in attendance.

FREDERIC B. DAVIES, *Reporter.*

LANCASTER

May 2, 1934

The meeting was held in the Medical Club Rooms, at 8:30 p. m. Edward M. Green, of Harrisburg (Pa.) State Mental Hospital, read a paper on "Epidemic Encephalitis." He said in part: A disease which depends on an acute inflammation of the brain must necessarily be characterized by symptoms which differ materially according to the part of the brain chiefly involved; accordingly in epidemic encephalitis is found a multiplicity of symptoms in such different groupings that mistaken diagnoses, especially in the early stages, easily may be made.

The cause of encephalitis is known to be an infection, for the body reacts to the causative organism as it does to other infections and also the disease is capable of being reproduced in lower animals.

Cases of encephalitis have been reported following measles, scarlet fever, pneumonia, and other infective processes, but the disease with which it is most frequently associated is influenza, hence in suspected cases it is well to investigate carefully the previous history of the patient.

It is unfortunate that the term "sleeping sickness" has come into such general use, even among physicians, for encephalitis has nothing in common with true sleeping sickness, the cause of which is known and the treatment generally accepted. The term owes its existence to a single symptom which is entirely absent in a large proportion of the cases.

Because of the multiplicity of symptoms mentioned, certain writers have come to speak of types of encephalitis, basing the type upon the prominence of one or another symptom or group of symptoms.

In McCrae's revision of Osler's *Practice of Medicine*, for example, are mentioned no less than 14 different types, while other authors speak of the "cataleptic type," the "paralysis agitans" type, the "psychotic type," and the like. Some writers are disposed to recognize also, stages of the disease dividing them into the "acute," the "postacute," and the "chronic," although admitting that it may be difficult to determine the point at which one stage ends and another begins.

Pathologic changes consisting of congestion, punctate hemorrhages, leukocyte infiltration, and nerve cell degeneration are most marked in the midbrain and in the region of the basal ganglia which influence the maintenance of muscular tone, the control of automatic action, and the expression of instinctive and emotional reactions. Because the involvement of these regions is most pronounced, usually there is no interference with intellect nor with the initiation or inhibition of activity, which is especially true in adults. Should this acute inflammation of the brain occur during the early period of mental development it may, and not infrequently does, serve to halt or to interrupt development and there results a condition of mental enfeeblement. It is, however, chiefly the disturbance of muscular tone and activity, the emotional changes and the behavior with which the physician has to contend in the ordinary case.

The fatalities of encephalitis fluctuate between 5 and 20 per cent in different epidemics. Many of those who suffer from the disease make perfect recoveries, but

even in the apparently light attacks grave sequelæ may occur, so that the severity of the attack is no criterion by which to judge the final result.

Encephalitis may appear suddenly with few if any prodromal symptoms, but is usually ushered in by malaise, headache, a rise of temperature, and evidences of a slight coryza, the condition often appearing to be so trifling as to arouse no anxiety. Later there may develop an undue drowsiness or even a marked somnolence. Owing to paralysis of the external muscles of the eye, double vision may occur and at this time muscular rigidity or irritative phenomena caused by involvement of the nerves or meninges are apt to appear. Frequent symptoms are vertigo, nystagmus, facial muscle weakness, respiratory disturbances, ataxia, and catalepsy. Delirium is not uncommon and with or without it purposeless movements, usually choreic or myoclonic in character, may be present.

In two-thirds of those who survive the acute stages sequelæ develop sooner or later. They may follow immediately upon the acute condition or be delayed for months, during which interval the patient may appear to have regained his or her normal health.

The most striking of the physical sequelæ is the Parkinsonian syndrome, in which there gradually develop the so-called "masklike" features and general muscular rigidity, the patient walking stiffly with bent body, shuffling gait, and exhibiting the usual picture or paralysis agitans, with or without its characteristic tremor. Owing to muscular weakness and excess of saliva, drooling is often observed.

The injury to the brain, though not so apparent in adults, is in children apt to be manifested by changes of disposition, character, and behavior, especially between ages 5 and 13. Here is found a condition of general restlessness, emotional instability, a disregard of the rights of others, and a tendency to become violent upon little or no provocation. Such children become unmanageable, quarrelsome, make attacks upon others, lie, steal, show delinquencies of all kinds, are disobedient, troublesome, and beyond the control of parents and teachers. Along with these characteristics there is usually no intellectual deterioration, the children may be affectionate in their intervals of good behavior and may occupy themselves in a normal way as long as their interest is sustained. Then without reason may come outbursts of anger and violence in which they are a menace to those about them. Many of these patients exhibit such antisocial conduct that they must be removed from home and placed in special schools or in hospitals for mental cases. The special school when well officered and equipped offers to a small proportion of these children some hope for improvement, although it is rarely sustained after they return home. Of the remaining number practically all will require permanent custody of some kind. The State Mental Hospital in which they are thrown entirely in the company of adults promises nothing so far as the patients are concerned and to the parents and other relatives only the relief which a permanent separation affords. Whatever disposition is made of them, these children present serious problems for which no satisfactory solution has yet been discovered.

In older persons, behavior is not so seriously affected, but in addition to the physical disorder temporary or prolonged depressions are not uncommon and actual psychoses may appear, with or without symptoms which suggest hysterical or neurasthenical states. There may be insomnia or somnolence, even a reversal of habit of sleep so that they are wakeful during the

night and sleep during the day. The emotional state is usually one of apathy, associated with which is a disinclination to make either mental or physical effort. In the advanced Parkinsonian state the patient thinks and speaks slowly, is dull, inactive and expressionless, while in some instances drooling, excessive sweating, and sphincter weakness are observed.

In a small proportion of the cases the distressing tremor can be controlled by the administration of hyoscine or stramonium but the effect of these drugs is apt to be only temporary so that permanent improvement is not to be expected.

Case reports illustrated the paper.

The chief interest lies in the changes of character, emotion, and behavior, so rarely influenced by any form of treatment. If the condition is recognized promptly, educational and disciplinary measures may be productive of some good, so it is extremely important that careful inquiry be made as to the presence of symptoms suggestive of encephalitis in the case of any child who shows a marked change of character and behavior accompanying or following an illness of even slight degree. The outlook for any improvement in antisocial conduct, once it is established, is not encouraging and the only hope for its mitigation is the placement of such children in special hospitals in which they may be helped to adjust themselves to the realities of life by individual education and by mental hygiene, giving them an opportunity to work and to play with other children of their age who are being trained to take their places in society.

WILHELMINA SCOTT, *Reporter.*

LEHIGH

April 10, 1934

The meeting was held at the Hotel Traylor, Allentown, George H. Boyer presiding. Floyd E. Keene, professor of gynecology, University of Pennsylvania, spoke on "Treatment of Abnormal Uterine Bleeding of Functional Origin." Franklin L. Payne, associate professor in research of endocrinology, University of Pennsylvania Medical School, spoke on "Clinical Application of the Recent Advances in Female Endocrinology." He said in part:

The recent contributions in female endocrinology are most valuable in obstetric and gynecologic diagnosis. We have found the Friedman-Lapham test for pregnancy to be dependable in more than 400 cases. The hormone diagnosis of hydatidiform mole and chorion epithelioma, which is done by a quantitative determination of the urinary secretion of prolactin, is now a practical procedure. In the investigation of amenorrhea, oligomenorrhea, and functional sterility, the hormone tests are useful in determining the type of glandular aberration which prevails. These tests should be done in conjunction with the study of the physiologic changes in the endometrium, specimens of which may be obtained at regular intervals by use of the Burch suction cannula.

In the treatment of functional gynecologic disorders, hormone therapy has definite limitations. Inadequate doses of the glandular products are usually recommended and the cost of adequate treatment is often prohibitive. In amenorrhea and dysmenorrhea, the use of desiccated thyroid gland in increasing doses and the female sex hormone in adequate quantities occasionally produces satisfactory results. The use of the female sex hormone is followed by amelioration of symptoms in a small percentage of menopausal reactions, more likely because of psychic than physiologic effects.

The best results follow the administration of the anterior pituitarylike hormone for functional uterine hemorrhage. Practically all the adolescent hemorrhages respond to this treatment, if it is combined with carefully regulated thyroid therapy. Two-thirds of those from age 20 to 30 and one-third of those from age 30 to 40 are benefited; after 40, hormone therapy for functional bleeding is unsafe and useless.

Charles A. Behney, associate professor of gynecology, University of Pennsylvania, discussed "Sympathectomy in the Treatment of Intractable Pelvic Pain." He said in part:

Intractable pain of pelvic origin is encountered in connection with 2 conditions, namely, pain from inoperable malignant neoplasms of the pelvic organs, and dysmenorrhea which fails to respond to ordinary palliative treatment. Excision of the superior hypogastric sympathetic plexus (presacral nerve, pelvic nerve) was done upon 23 patients suffering from advanced carcinoma of the pelvis; 16 of these women were entirely relieved of their pain; in 4 the relief was either incomplete or only temporary; and one was relieved of pain in the lower abdomen and back, but subsequently developed pain in the leg, which rendered the result unsatisfactory. On 2 occasions the plexus could not be removed because of technical difficulties.

The technic can be acquired by any experienced pelvic surgeon. The operation involves no more shock than the average laparotomy and is well tolerated even by debilitated patients. The time required should not average more than one hour. There is no interference with sensory or motor function of the legs, bowels, or bladder. The approach through the anterior abdominal wall leaves a wound whose healing is not interfered with by the recumbent posture. Pain caused by extension to bone, skin, or situations not supplied by the superior hypogastric plexus is not affected by this procedure.

This operation has also been performed upon 9 patients who suffered from severe dysmenorrhea which could not be relieved by any of the time honored treatments, including dilatation and curettage, and in some cases laparotomy. Six of these women were completely relieved. One of the patients, incompletely relieved but improved, still suffers from an orthopedic ailment. A second one, no longer incapacitated at her periods, is aware of their occurrence because of general malaise. The third patient no longer has dysmenorrhea but complains of lower abdominal pain probably due to an adhesion.

This operation should be reserved for those patients with severe dysmenorrhea who do not respond to correction of diseases of the genitalia, the urinary tract, the nervous system, or the glands of internal secretion. Pelvic pathology discovered at the time of operation should be dealt with appropriately.

LUZERNE

May 2, 1934

President Edward W. Bixby presided at the meeting held in the Medical Building, Wilkes-Barre. Marshall C. Rumbaugh, Kingston, read a paper on "Lumbar Anesthesia with Special Reference to Complications and Mortality."

He said in part: This paper is for the purpose of giving their experience in the use of lumbar anesthesia over a period of 17 years, especially during the past 3 years, based upon a series of 750 cases. It was first

used in the Wilkes-Barre General Hospital in 1917, but only in those cases in which a general anesthetic was contraindicated. When they consider how little they knew of the technic and management of these cases, they wonder why they did not have any deaths on the operating table; the escape was so narrow that the method was abandoned as unsafe. In this series neocaine was used. The technic of Labat was followed to the letter. After acquiring a working knowledge of it, the next step was the training of the operating forces so as to have good teamwork after the neocaine had been introduced into the subarachnoid space; and the training of the anesthetists to take blood pressure and to recognize any untoward symptoms arising during the operation, and to know the remedy for any emergency. A well trained personnel has been acquired.

The technic consists first in selecting cases most suitable: Those with a normal blood pressure who wish to avoid a general anesthetic; pulmonary complications. Many times an acute surgical condition requiring immediate operation will have an acute respiratory involvement prohibiting the use of a general anesthetic; liver and kidney insufficiency is an indication, especially in the delivery of eclamptic or pre-eclamptic toxemics; in diabetes in which a portion of the lower extremity has to be amputated; and in hypertension.

The preparation is as follows: No enema is given before the operation in the morning as there would be undue relaxation of the anal sphincter; 30 minutes before operation the patient is given morphia gr. $\frac{1}{6}$, and atropine gr. $\frac{1}{150}$, if the blood pressure is more than 120 mm. of mercury; if the blood pressure is below 120, ephedrine $\frac{3}{4}$ gr. with morphia gr. $\frac{1}{6}$, and not atropine, is given. The patient is placed in the sitting posture on the side of the operating table, the feet placed on a stool high enough to maintain the thighs on the same level as the table, the elbows are placed on the knees and the chin rests on the palm of the hands. This position causes a convexity of the spine, separating the intervertebral spaces. Sterile sheets are placed about the back and the skin painted with 5 per cent picric acid in alcohol. The interspace is selected according to the level anesthesia is desired. Novocaine, $\frac{1}{2}$ per cent, is used for the skin. Size 22 gauge needle is introduced through the anesthetized interspace—1 to 2 c. c. of spinal fluid is allowed to drop into the ampule containing the crystals of neocaine. As soon as they are dissolved, the contents are drawn into a syringe and injected through the lumbar needle into the subarachnoid space. The other end of the table is also inclined downward from the knees, and a restraining band placed about the knees.

In a few of the early cases difficulty was experienced because of faulty position, sclerotic spines, or of lack of coöperation of the patients. In 4 cases there was very slight or no anesthesia. This was probably due to a failure to get into the subarachnoid space. This will occur if the patient moves.

The time the anesthesia lasts depends upon the amount used and the weight of the patient. For abdominal work, 0.10 gm. is given, and 0.03 to 0.05 gm. in perineal and rectal work. These produce 40 to 60 minutes and 30 minutes, respectively.

As to the safety of this procedure compared with ether, Foss and Schwalm report 4000 operations: Deaths were 10 times more common if ether was given; deaths were more frequent after the use of ether. These authors consider the spinal method more safe. The speaker's experience has been similar. There is

less vomiting, headache is rare, and abdominal distention is less.

The following field operations were done: Appendectomies, 299; colon and rectum, 103; female pelvis, 74; hernias, 83; hysterectomy, 50; gallbladder, 40; genito-urinary, 20; exploratory laparotomies, 26; stomach and duodenum, 18; cesarean section, 14; amputation of the leg, 9; fractures, 8; spine (lumbar), 1; abdominal sympathetomy, 1; lipectomy, 3; and high forceps, 1.

As to complications, nausea during the operation occurred more frequently than other symptoms but was easily controlled with caffeine sodium benzoate. In extreme lowering of the blood pressure, adrenalin, $\frac{1}{2}$ c.c., is given. A small number complain of heaviness in the chest, which disappears after caffeine sodium benzoate is taken. Pallor is noted without other symptoms.

There have been no deaths in the operating room and none within 24 hours from any cause, but 11 were within 72 hours; none attributed to the anesthetic.

In discussion, Dr. Purcell said he uses sodium amytal, gr. 3, the night before, which is repeated before the operation, with the morphia and atropine. McCluskie in Mayo Clinic reports 1 death in 1000; Dr. Hanlon considers it is the best in certain types of cases; oxygen and carbon dioxide are used to control nausea and headache. It is the best for operations below the diaphragm. Harry Smith said chronic backache will follow if the needle is introduced into the intervertebral disk. Lachlan M. Cattanaach stated that Dr. Losier, of Newark, N. J., saw 5 cases of peripheral neuritis follow lumbar anesthesia, which may come either in the upper or lower extremity. Up to 10 months it will disappear. Injury to the nerves can be avoided by the use of a small needle, with the bevel pointing east and west, inserted slowly, and tested if fluid comes after a snap is felt. Frank M. Pugliese mentioned the possibility of chest complications in comparison with a general anesthetic. Some say the incidence is more. One other complication is foot-drop which is temporary. Homer B. Wilcox stated it is very satisfactory in urology. The blood pressure does not bother one much, and one can not do much about it any way. Increasing the Trendelenburg position aids.

Dr. Rumbaugh, in closing, said to use oxygen frequently. Puncture of the intervertebral disks is dangerous but a certain technic avoids this. If nausea develops give caffeine sodium benzoate. One patient had a blood pressure 115 at the beginning, which dropped to 0. After autotransfusion, as it was a ruptured ectopic pregnancy, the patient recovered. Chest complications, as pneumonia and empyema, do occur.

MARJORIE E. REED, *Reporter.*

LYCOMING

April 13, 1934

The meeting convened in Medical Hall, at 1:30 p. m., with Warren N. Shuman in the chair.

C. Howard Marcy, president of the Pennsylvania Tuberculosis Society, read a paper on the "Diagnosis and Management of Pulmonary Tuberculosis." He reviewed the lack of study of tuberculosis in the earlier days of medicine; that many times the policy has been to pass the patient on to some one else.

The disease is infectious and communicable with definite symptoms and pathology. The final crux of the problem comes down to the general practitioner. To

fail in early diagnosis and institution of treatment nowadays means we have failed as physicians in this capacity. Early diagnosis is often difficult, demanding careful and painstaking study. One should always reserve his opinion until all the facts are known. It is equally as bad to label a case tuberculosis if it does not exist as to miss the diagnosis in a positive case. The diagnosis affects applicants for insurance or employment, and they do not like the publicity of such a diagnosis. The laity still fears tuberculosis. It does not take into account such things as healed and unhealed lesions. In any illness of indefinite etiology tuberculosis should be considered. The lay public now demands more accurate diagnosis and we as physicians have more diagnostic aids. Such expressions as "spot on the lung," or "cough which may go on into tuberculosis" are obsolete terms. Diagnosis must include degree of activity, stage of development, prognosis, area of involvement, and plan of treatment. Signs may exist without corresponding pathologic findings. Old pulmonary pathology may exist and be nontuberculous. The following three conditions must be distinguished: tuberculous infection, clinical tuberculosis, and inactive tuberculous pathology. Most adults have received some tuberculous infection during life, rendering skin and serum tests positive and therefore confusing. The complement fixation test is unreliable. Skin tests for tuberculosis are qualitative but do not show extent of involvement. Finding the tuberculous bacillus makes the diagnosis absolute. Tuberculin does good in some conditions such as those affecting the eye. Its chief value is in diagnosis.

Publicizing the Test: The public does not know how to interpret the skin test, if used in school children. If the parents are not properly informed before time of its significance it may give rise to phthisiophobia. A positive tuberculin reaction does not necessarily mean clinical tuberculosis. We learn from the test whether the child has ever been infected with the tubercle bacillus in sufficient measure to cause a reaction. A negative tuberculous test is extremely valuable except in a few instances. A positive tuberculous reaction should mean just the beginning of study. There is a greater chance that the child may develop it later. Roentgenograms are the chief method of subsequent study. The Mantoux test is probably the best skin test. It is easier to control than the von Pirquet. In doing this test be sure to have a potent tuberculin. Present day tuberculin may vary in potency as much as 200 per cent. It deteriorates especially after dilution. Tuberculin should be prepared freshly each day; 1/100 mg. is injected intradermally, and is observed at the end of 48 hours. If negative 1/10 mg. is then injected and observed again after 48 hours. If still negative a third dose is given of 1 mg. and again observed after 48 hours. If still negative the child can be declared free from infection. The reaction is easy to read and the test easily administered. If the child is positive look somewhere else in the family for the source. If every one who is infected could be controlled the spread of the disease would be stopped just as has been done with cattle. In the United States all infected cattle are slaughtered; in England they are only segregated. In America, bone and gland tuberculosis is becoming rare. The reverse is true in England. Pasteurization of milk is a great help also.

Only the older or school children should be skin tested for this disease and in those children found positive, roentgenograms of the chest should be made. Physical examination of children with the stethoscope for tuberculosis is almost useless. The tracheobronchial

glands are where the lesion oftener occurs in childhood. Tuberculosis in infants up to age 2 or 3 is almost an acute illness and usually quite fatal, usually taking the form of tuberculous pneumonia or tuberculous meningitis.

Pulmonary Tuberculosis in the Adult: The parenchyma of the lung is infected, usually extending upward from the hilus. The physical examination now becomes very valuable. Physical signs may be present without demonstrable pathology. The reverse may be true and there are all shades of these processes in various cases. The hereditary belief is not popular today, childhood infection being the main idea. Among the earlier important signs are hemoptysis, idiopathic pleurisy (especially if with effusion), afternoon fever (usually reaching its maximum from 4 to 8 p. m.), loss of weight, weakness, and fatigue in the afternoon. Hemoptysis should always be considered tuberculous until proved otherwise; 90 per cent of these are due to tuberculosis. Malignancy, syphilis, bronchiectasis, *etc.*, comprise the other 10 per cent. Idiopathic pleurisy with effusion in connection with any preceding acute infection should always suggest tuberculosis. Do not wait until cough is present. A positive sputum is indisputable evidence of the disease but a negative sputum does not outrule it. There is no reason why all chronic sputum cases cannot have their sputum examined. This aspect of the work is seriously neglected. In some cases we must go farther than ordinary sputum studies. Concentrated 24-hour formalized smears may be necessary. The guinea pig test should be used in some cases, but this also is not infallible. In the physical examination a shower of coarse râles heard on the beginning of inspiration following an expiratory cough, especially if heard over the upper lobe anteriorly or the scapula posteriorly, is most suggestive. In tuberculous patients, these râles will be heard in the same locations time after time.

The 5 cardinal points for diagnosis are: Tubercle bacilli in sputum; râles in the upper lobes; roentgen-ray evidence; hemoptysis, and idiopathic pleurisy with effusion. Of these the only one pathognomonic is a positive sputum; should this be negative the remaining 4 signs are not sufficient singly. Any 2 of these remaining signs in combination are very significant, especially if symptoms exist to support it.

It is doubtful whether activity or inactivity can be distinguished by roentgen ray alone. The type of observation of these patients depends on the symptoms. Bed rest is necessary for some active cases; office treatment may be sufficient in others.

Treatment: This permits of no compromise. Definite advice must be given and the following are essential: Early recognition; proper routing of treatment over sufficiently long time; rest—the most important factor; diet; fresh air and sunshine. It is ordinarily better for a tuberculous case to learn the rudiments of treatment in an institution. Whatever helps that may be needed may be given, such as collapse therapy, phrenicectomy, *etc.*

Finally do not pass up the patient with insignificant symptoms of tuberculosis. The chance of speedy recovery depends on early recognition, and appropriate treatment at this time.

In discussion, William Devitt, of Devitt's Camp, voiced the opinion that tuberculosis never will be stamped out until the sources of infection are removed. The death rate is falling but he doubts if the morbidity is reduced to anything near the same extent. If it were possible to get a positive sputum early in all cases the

disease would be cleaned up in 5 years. Doctors must become "Tuberculosis Minded." Eighty-five per cent of cases of pleurisy with effusion are tuberculous. He stressed the point of draining pleural effusion in such cases, with air replacement. The inflamed pleura, if not held apart with air, will be glued together and subsequent collapse will be ineffectual. Collapse therapy may put a patient well on the road to recovery in 6 months; but 2 years or more will be necessary if collapse therapy cannot be given. All training school nurses should be roentgen rayed once per year during their course of training. Lloyd E. Wurster reviewed the route of infection, starting with the inhaled tubercle bacillus, alveolitis then occurs, followed by peribronchitis, and then a small area of bronchopneumonia. In the favorable cases healing occurs. In the less favorable cases the area grows larger, exudate takes place, more lesions may occur, the central lesion may break down by caseation and cavity formation may occur. The lymph nodes around the bronchi get it from the peribronchial lymphatics and they too may go through the same changes. There are other causes for hilus adenitis, such as sinus infection, and bronchitis. Complete coöperation between clinician and roentgenologist before making a diagnosis.

In closing, Dr. Marcy agreed that nurses seem to show higher incidence than those in other occupations. Children should have their chests examined in routine examinations even if childhood tuberculosis is hard to find. Other things, such as basilar infection, asthma, *etc.*, may be found. Diabetes is not an uncommon complication of tuberculosis. It does present difficulties in treating. Get the diabetes under control first. Insulin and a high caloric diet is the ideal but it cannot always be done. When unable to do so poor results usually follow. As to anesthetics, Dr. Marcy is much opposed to ether in tuberculous patients, having seen some very poor results despite some modern literature, to the contrary. Gas is most desirable. Avertin and local anesthesia are a good combination. As to tonsillectomy in children with peribronchial adenitis, he could not answer definitely but believes it is a matter for individual judgment. If there is definite interference with recovery from tuberculosis, focal infection is removed even in the presence of tuberculosis. In children with positive skin tests and roentgenograms, be conservative and try the rest cure for a while. Later advise tonsillectomy if thought necessary.

LARUE M. HOFFMAN, *Reporter.*

MONTGOMERY

April 4, 1934

The meeting was held at State Hospital, with 60 members present. It was decided to hold a special meeting to consider Medical Economics. A Committee on Mental Hygiene was appointed consisting of Drs. Elliott, Wilson, and Podall, to coöperate with the State Committee. John B. Sherbon presented an unusual case of unilateral enlargement of the face and body.

Harold W. Jones, Philadelphia, Jefferson Medical College, discussed "Diseases of the Blood." He said in part: Evidence of hemorrhagic disease is present in from 15 to 20 per cent of patients. The outstanding ones are purpura and hemophilia. Most of the cases of hemophilia prove to be purpura hemorrhagica. Much confusion exists concerning these 2 conditions. In purpura, the bleeding time is long, clotting time is normal, clot retraction is deficient, and blood platelets are usu-

ally low. In hemophilia the bleeding time is normal, venous clotting time is greatly lengthened, clot retraction is present, and blood platelets are normal or increased. In hemophilia a definite family history usually is obtained, but occasionally in purpura we find a similar condition. Many of the patients with purpura get well spontaneously. Transfusion is still the outstanding treatment for fulminating purpura hemorrhagica. Control of the bleeding time, irrespective of the platelet count, is the most important factor. Splenectomy is indicated in true cases of purpura, chronic or acute exacerbations, in which all methods of influencing platelets in number and quality have failed.

The use of ovarian extracts in hemophilia has proved a dismal failure. The most important consideration is the control of clotting time. After all other methods have failed, transfusion remains the most important."

May 2

At the meeting held at State Hospital, Norristown, there were present 63 members and 11 visitors. It was decided to hold a special meeting on Medical Economics on May 18. Hugo Roesler, of Temple University Medical School, discussed "Angina Pectoris, Rheumatic Heart Disease, and the Heart of Athletes." He said in part:

I. Rheumatic heart disease in the child and the adolescent:

(a) Clinical signs of activity: growing pains, spasmodic twitchings, abdominal cramps, poor appetite, cardiac pain, increased and diffuse cardiac impulse, lack of vitality, pallor, fluctuating temperature, fixed weight.

(b) Its incidence is higher in the cities than in the rural districts. It is rare in the subtropical and tropical regions.

(c) There is often an interval of 10 to 20 days between a throat infection and a recurrence. Tonsillectomy does not necessarily prevent a relapse and if done during activity may lead to a flare-up.

(d) Salicylates do not influence the underlying pathologic process; given in large doses it may cause severe vomiting and depression.

(e) Clinical criteria for arrest of activity:

1. Decrease in rapidity of pulse; it is important to determine the sleeping rate also.
2. Steady temperature.
3. Increase of appetite and weight (in the absence of edema).
4. The erythrocyte sedimentation rate being normal at repeated examinations. When evaluating the E. S. R. it is to be remembered that anemia causes an increased rate and that the capillary tubes should be kept at a temperature of 18° C. This test is not specific and other infections like rhinitis and sinusitis are to be excluded.

(f) Since many cases of enormous cardiac enlargement can be traced to the fact that physical activity was taken up too early, it is the duty of the physician to supervise for a number of months the functional response of the heart. The following practical points are suggested:

1. The child sits up in bed several times without using the arms.
2. The child walks 1 to 2 flights of stairs or bends the knees 10 times. The rate of respiration should be counted before and

after this exercise. One also may make the child count quickly from 1 to 50 while observing the respiration. The acceleration of respiration is more important than that of the pulse rate.

3. A walk of ½ to 1 hour, preferably in company of the physician. Shortness of breath, failure of an increased pulse rate to return to normal within ¼ hour, feeling of tiredness and headache again necessitate bed-rest.
4. Roentgenograms of the heart taken in intervals of 6 weeks for ½ year. A technic has to be used which permits correct comparison.

Errors are made in the other direction and many children are deprived of the possibility of good physical development and lack of self-confidence is created. The physician should be guided by a functional evaluation of the heart muscle rather than by structural changes. Systolic murmurs often have no significance.

II. Angina pectoris with the exclusion of coronary thrombosis:

Angina pectoris is best considered as a disturbance in the function of the cardiac muscle caused by insufficiency of the coronary circulation and modified by the type of nervous constitution. If people who are liable to develop attacks of angina pectoris are made to breathe air containing only 8 per cent oxygen, an attack of angina pectoris as well as certain electrocardiographic changes are mostly produced; likewise electrocardiographic changes may occur when pain is brought on by exercise.

The stage of the myocardium can also be evaluated by the carotid sinus pressure. Marked slowing of the heart and different forms of irregularities indicate as a rule that the myocardium is below par. This test should be applied only when the patient is in the horizontal position and only when carefully listening to the heart. A pathologic response is likewise observed in an infectious myocarditis, with diabetes, with increase in intracranial pressure and with marked calcification of the carotid artery. The response is decreased during fever.

Treatment: (a) Of the anatomical-functional stage which underlies the attacks.

1. Drugs. There is no continuous drug treatment known which will influence the frequency and severity of attacks. Natural variations or even remissions occur in the course of the disease if no treatment whatsoever is given.
2. Rest. Complete rest in bed for a period of 2 to 6 weeks, being washed and fed and using a bed pan usually decreases the severity of the attacks.
3. Thyroidectomy. Remarkable results have recently been published. The underlying principle is to decrease the basal metabolism and thus decrease the heart work.

(b) Of the single attack and its prevention.

Nitroglycerin, average dose gr. 1/100 should be routinely taken immediately before expected attacks, especially before evacuation of bowels, before attending social engagements, before sexual intercourse, and the like. The tablets should be chewed and not swallowed. Freshly prepared tablets should be used, the strength deteriorates when kept opened. If nocturnal attacks are threatening at bedtime, 1 to 2 tablets should be used,

together with morphine, gr. 1/3, or luminal, gr. 1 to 2, or chloral hydrate, gr. x to xv.

III. The heart in athletics:

It is of fundamental importance to distinguish whether or not indulgence in heavy competitive athletics is undertaken by a bearer of a perfect and healthy heart.

The expectation of life for college athletes as compared with their classmates is practically the same, as extensive studies have shown. The main medical problem of the heart in athletes is that of damage done to a heart which had not been a normal heart to start with. In the history of such enlarged hearts, infectious diseases like rheumatic fever, chorea, influenza, and repeated sore throats can be found. Overexertion in adolescence may be a damaging factor. Consider in young persons the age also and not only the body bulk. Feats of strength and speed do not influence the heart while prolonged training leading up to feats of endurance (locomotion) may occasionally cause cardiac enlargement which often will regress, at least in parts, with the cessation of training. Rowing, skiing and bicycling have to be considered along this line.

A routine examination of those who indulge in competitive sports is desirable in order to exclude those who are unfit and a 6-month checkup is desirable to detect possible early changes. An exact determination of the heart size as well as of minor changes is possible only by means of roentgen-ray study. The best rule is: The area of the cardiac silhouette should have the same size as the fist of the individual.

WALLACE W. DILL, *Reporter.*

MONTOUR

April 27, 1934

The meeting was held at the Geisinger Memorial Hospital, Danville.

Harold L. Foss read a paper on "The Premedical Student and His Problems." Dr. Foss pointed out that there was a steady increase in the number of physicians because the medical schools graduate 50 per cent more physicians each year than are lost to the profession through death. This factor is making competition more and more keen. He outlined the difficulty of becoming a doctor with its long years of arduous study and the considerable expense that is entailed. Each premedical student was advised to have a medical preceptor.

Some of the advisable subjects in a premedical course are: (1) A broad cultural background in the humanities; (2) English, both written and public speaking; (3) facility in reading a foreign language, preferably German; (4) the student should participate in some form of extracurricular activity, particularly some form of athletics; (5) he should develop a hobby. For the student some hobby related to medicine, such as microscopy is advisable. The student should also continually keep his objective in mind, cultivate the acquaintance of physicians, and spend his vacations if possible in some hospital performing work related to the science of medicine. The personal characteristics that are most desirable in a physician are diligence, tact, a pleasing personality, and devotion to his profession.

This paper was followed by a surgical dry clinic, conducted by Dr. Foss and his associates.

Robert Y. Grone presented a case of a female, age 12, with pneumonia. The history, symptoms and physical examination strongly suggested appendicitis. This case demonstrated the difficulty sometimes encountered

in making a differential diagnosis between these two conditions.

The second case, presented by J. V. D. Quereau, was of granulocytopenia with extensive gangrene of the neck extending down into the mediastinum. The blood count on admission showed 300 white cells. Treatment consisted of repeated transfusions which had raised the white count in a week to 8000. Coincident with this there was an improvement in the gangrenous process.

The third case was presented by A. J. Abbott. This was of a patient with exophthalmic goiter following an acute thyroiditis. HENRY F. HUNT, *Reporter.*

NORTHUMBERLAND

May 8, 1934

The meeting was held at Shamokin, at 3:15 p.m., President James G. Strickland presiding.

Beatrice Rettinger, of Sunbury, and Charles Straub, of Middleburg, were admitted to membership.

Mr. Robert W. Semenow, chief of Law Enforcement Division of the Department of Public Instruction, Harrisburg, gave an address on illegal practitioners. He said that on May 1, 1933, this department has been changed so as to work more efficiently, and he promised quick action on all cases brought to his attention. He cited some of the difficulties they have encountered in the various counties, but stated definitely that all chiropractors were practicing without a license and that the usual evasion of the issue by the chiropractors that they were not doing any harm was overcome by a rule of the State Supreme Court that the practice of chiropractic was the practice of medicine and so if he could procure 2, preferably 3, authentic cases of persons, who consulted a chiropractor or any other quack and received treatment for pay, he would immediately prosecute. At all times he keeps the physicians of the county entirely out of the case and preferred authentic cases, rather than so-called "plants," of whom juries were always more or less leery. Another difficulty to plan out in these cases was that they are criminal cases and that in these cases a person is considered innocent, unless it is proved beyond a reasonable doubt that they were guilty. In conclusion, he stated, that if a quack or chiropractor locates in a community, it would be best immediately to notify the State Department, and usually a letter from the department to the chiropractor is sufficient to scare him away, but that if reporting is delayed until a few friends are made by the illegal practitioner it is much more difficult to adjust.

The monthly report card of the Northumberland County Emergency Health Committee for April is as follows:

	Age	Girls	Boys
Number examined	Under 6	14	5
	Over 6	7	2
Number unvaccinated	Under 6	8	1
	Over 6	2	1
Number not having had T. A. T. or toxoid	Under 6	5	2
	Over 6	2	2
Number with malnutrition	Under 6	6	3
	Over 6	1	1
Number with behavior disorders	Under 6	7	2
	Over 6	2	1
Number with systemic diseases	Over 6	1	

MARK K. GASS, *Reporter.*

PHILADELPHIA

April 13, 1934

A special meeting was arranged for senior medical students in Philadelphia and vicinity, on "Medical Economics." "The Relation of the Doctor to the Public and the Commonwealth," was presented by Thomas A. Shallow. The responsibilities of the physician to the legal machinery of the Commonwealth were enumerated and explained in detail, and the status of the physician as witness, as to fact and as to the expert aspect detailed. Briefly it may be stated that if a physician is subpoenaed before a judge and jury, or if he be summoned before a district attorney he must give the information required under the law. This is especially true in criminal cases and if a felony has been committed. In cases of sudden death of patients under more or less regular supervision of the physician, the latter should advise the coroner of such attendance. Except in obvious cases of death by violence, this usually saves the family of the deceased much embarrassment. In cases of criminal operations, it is the duty of the physician to notify the district attorney's office immediately of the case and place before him all the information obtained by the physician. In cases of murder, questionable suicide, or attempts at criminal violence, it is the duty of the physician to furnish the district attorney all the facts of the case in order to facilitate justice. Failure to observe these rules will lead the physician into considerable embarrassment. A subpoena cannot be ignored. Testimony as to facts is all that a subpoena requires—not expert testimony—such testimony is remunerated by the legal witness fee. Expert testimony is entitled to such remuneration as the expert arranges for with the individual who engages his services. The physician desiring to qualify as an expert must convince the court of his ability as such. The suggestions made also embraced the desirability of accuracy and honesty of statement in all records and testimony in medicolegal cases.

Moses Behrend spoke concerning the "Value of Medical Organization." He outlined the set-up of the county, State, and national organizations and stressed the great advantages to be derived from united effort in combating the various factors working to effect socialization of medicine. State medicine would tend not only to destroy the individuality of the physician but would make for mediocrity of service. The large foundations appear to be committed to a program along the line of socialized medicine which is not considered to be consistent with the best medical service, and organized medicine is called upon to familiarize all those concerned with its limitations and defects. The educational advantages, not only along economic lines but in the field of general medical science, of the county medical society were stressed. The seminar project, the library, and the medicolegal protection afforded by the county society were cited as highly commendable features of our medical organization. The postgraduate work of the State Society in the several counties unable to provide for themselves this activity was also mentioned. The American Medical Association with its innumerable investigating bureaus, legislative committee, propaganda for pharmaceutical reform, and its very comprehensive educational and information project were described at length. He pled for early affiliation of the graduates in medicine with the county society in the county in which they expected to locate, but also called attention of the encouragement the county societies extended to all interns to attend their meetings pending

the development of the necessary qualifications for full membership.

Francis F. Borzell presented a paper entitled "Medicine and Economics," in which he described the crisis now facing all practitioners of medicine, and more especially the younger graduates, in the demands from outside interests that the practice of medicine be socialized. The essence of this address was that all physicians should carefully study the subject from all points of view, not failing to appreciate the fact the medical profession had been longer engaged in this field of study and from a practical standpoint, and that the results of these studies should be carefully evaluated in the final analysis. The basic causes and effects of the present economic situation are naturally reflected in professional activities, but any attempt to isolate medical service from the whole and claim that it alone is responsible for the inability of thousands to provide medical services for themselves is unjust and wholly unfair. The essayist presented a very careful analysis of the statements put forth under the auspices of the Milbank Foundation which seem to attribute the inability of the entire population to receive adequate medical care to something inherently wrong in the conduct of medical practice, and therefore amenable to correction only by changing the form of medical practice. Dr. Borzell's comment was that the inability of the entire public to receive adequate medical care was subject to the same creative condition as was its inability to obtain sufficient food, clothing, housing, and other necessities. He decried the tendency of certain agencies to place the control of things medical in the hands of others than the medical profession. He emphasized the necessity of maintaining the highest degree of medical services for all people which he did not regard as possible of attainment by any of the schemes so far proposed for the socialization of medicine. On the other hand he anticipated a lowering of the standard of medical care as the result of such plans.

April 25

JEFFERSON MEDICAL COLLEGE NIGHT

A discussion of "The Classification of Tumors of the Kidney" was given by Baxter L. Crawford, who stated that many of the real advances made in the knowledge of tumors of the kidney in recent years have resulted from the study of the clinical and morphologic characteristics of new growths with special reference to their rate of growth, modes of metastasis and histogenesis, and have led to a much simplified classification of neoplasms. The better knowledge of the disturbances of the physiologic function of the organ affected by new growths has been of great value in this connection. It seems to be the consensus of opinion among those who have studied large groups of malignant tumors of the kidneys in adults, that the majority of these tumors are true renal carcinomas and not of adrenal tissue origin. Renal tumors are not characterized by changes in sexual characteristics as are those of adrenal origin, according to most observers. The majority of renal tumors when discovered clinically are large nodular growths which replace much of the kidney structure, are found just as frequently in the lower pole as in the upper, and are composed of soft, gray homogeneous tissue which has a decided tendency to undergo necrosis. They frequently attain an enormous size. Histologically, these tumors are usually of one or 2 types. The greater number are composed of the large, clear, or "foam" cells, which are usually arranged in alveolar formation and as a rule in some areas, the cells

are columnar in type and form acini. The smaller group is composed of transitional squamous cell epithelium, with the formation of many papillae evidently arising from the pelvic epithelium. Not one of over 65 cases had any changes in the sexual characteristics of the patient. These tumors of the kidney are carcinomas of renal origin because, (a) they differ histologically from the true adrenal cortical tumor, (b) of the rarity of adrenal rests in the kidney as compared with adenomas, and (c) of the absence of sexual and other changes in patients so frequently associated with tumors of the adrenal cortex. Slides were shown.

"The Surgical Consideration of Tumors of the Kidney," was discussed by Thomas C. Stellwagen. He does not believe that kidney tumors are completely hopeless, having had a number of cases in which the life cycle was materially prolonged by surgical intervention. The average benign tumor requires no surgery. Practically all the tumors he has had occasion to treat surgically were of the adenoma type. He stressed the importance of hematuria in the symptomatology of early renal tumors and advised careful and thorough urologic survey in patients presenting this symptom. Some tumors show metastasis early and many do not show metastasis until very late, but the prognosis is greatly improved as in malignant disease elsewhere by early and prompt removal. Cases were cited from his own experience illustrating the value of this understanding. The roentgen ray is a valuable adjunct in the study of these cases. Slides were shown depicting the technic of operation employed by the speaker as well as the morbid anatomy of several specimens removed surgically. The outstanding feature of this technic is that it provides ample room for meeting unexpected contingencies such as profuse hemorrhage. Preoperative radiation and postoperative deep radiation are included in the treatment of these cases.

In discussion Thomas A. Shallow stressed the value of hematuria as a symptom calling for intensive investigation. He also referred to possible occurrence of sarcoma usually the result of some adrenal rest. Carcinoma involving the medulla, a condition found particularly in children, was also mentioned. Willard H. Kinney stated that in papillomatous growths of the pelvis of the kidney, hypernephromas occurred in the proportion of 1 to 14 of all others. Sessile basic tumors are much more malignant than papilloma.

"The Medical Aspect of Gallbladder Disease," was presented by Martin E. Rehfuess who introduced the subject by a short reference to the anatomy and physiology of the structure under consideration. Gallbladder disease is nearly always secondary to some disturbance elsewhere in the system. The etiology embraces 3 factors, infection, disturbed metabolism, and disturbances of function, principal among which is stasis. In only a small number has the evidence concerning infection of the gallbladder been complete, that is to say, that the organism has been isolated, the disease reproduced in experimental animals, and the organism recovered. The experimental work in this field, while confusing, makes it apparent that gallbladder infection is not a specific type of infection, nor due to one particular type of organism, but is secondary to a variety of infections in primary foci elsewhere, the blood stream being the carrier. This calls for especial study of the common areas likely to be infected, teeth, tonsils, etc. The metabolic factor in the etiology is closely associated with alterations in the bile, largely centering around the cholesterol problem. A number of diseases are associated with a high cholesterol content of the blood.

An extended study results in the assumption, that hypercholesteremia may not only occur in a number of conditions and be transitory and disappear, and the conclusion that considerable damage is possible during these periods of excess. The consensus of opinion is that hypercholesteremia is exogenous in origin, although a few maintain the belief in an endogenous formation of cholesterol on the part of certain ductless glands. Dietary supervision has not been exhausted in the study of this condition.

Stasis of the gallbladder may be physiologic due either to infrequent feeding, the ingestion of foods with no physiologic stimuli or it may be the result of damage to the mucosa or muscularis of the ducts and bladder wall. We are gradually approaching the idea that the gallbladder may be diseased like any other organ of the body. It is amenable to medical treatment as well as to surgical consideration and careful study will relegate each case to its proper therapeutic class. The diagnosis of gallbladder disease and its differentiation from functional disturbances, is made by the history, physical examination, duodenal intubation, or roentgen-ray study. The history and subjective symptoms were described at length and suggestions made as to their evaluation. The objective methods of diagnosis are somewhat correlated, although the modern highly specialized roentgen-ray technic for gallbladder examination has added materially to the diagnostic armamentarium. While the value of the duodenal tube was highly lauded caution was urged to avoid exaggeration of its usefulness. While the high incidence of infection (50 per cent) as a cause of gallbladder disease called for aggressive measures in seeking and removing the primary focus, the remainder of the cases offered a wide field for the stabilizing of the metabolic function and the relief of the stasis. The opportunity for the properly informed medical man appears to be unlimited in this latter group of cases. Statistics and slides were utilized to illustrate the principal points of this paper.

"The Surgical Aspect of Gallbladder Disease," was presented by Edward J. Klopp. It included the tabulation and analysis of 300 gallbladder cases collected through the follow-up clinic; all were registered in the clinic since 1928 except 13 which were personal private cases collected at random to complete the series of 300 during the 5-year period. The patients were operated upon by 9 different surgeons 3 of whom did the larger number. There was no case of primary cancer of the gallbladder encountered, nor was there a case of cancer of the pancreas. In 180 private cases in the personal experience of the speaker there were 2 cases of cancer of the gallbladder and 3 of the pancreas. The operative mortality for the series reported was approximately 4.6 per cent which is higher than that reported from clinics conducted by well-organized surgical teams. Diagnosis, pre-operative care and postoperative care are the factors that make for satisfactory results in the surgery of the gallbladder. The pitfalls attending indifference to these factors as well as details of technic were described fully. The question on calculi was also given prominent consideration. The surgical follow-up previously referred to showed better results in the calculous cases than in the noncalculous gallbladder cases. It is estimated that 90 per cent of the cases of primary cancer of the gallbladder contain stones. All the personal cases of cancer seen by the speaker contained stones. Early operation was advised in cases of acute cholecystitis.

In discussing the gallbladder papers, B. B. Vincent Lyon, in commenting upon the medical aspect of gall-

bladder disease, assigned stasis to the first place in the etiology of gallbladder conditions, the metabolic factor, second; infection, third; and referred to a fourth factor, namely mucosal damage. Obesity is one of the principal predisposing factors in the production of gallbladder disease. The necessity of avoiding infection, anywhere, is a factor in prevention. An important point brought out was that gallbladder disease does not come on suddenly but is of slow and insidious onset. It also occurs in early adult life but seldom in children, although frequently reported in infants. The speaker stressed the direct study of the bile as a guide to the situation in suspected cases, and also urged drainage of the gallbladder in the medical treatment, utilizing dietetic management as well as the duodenal tube.

May 9

UNIVERSITY OF PENNSYLVANIA NIGHT

"Acute Rheumatic Fever." J. C. Gittings, in acute rheumatic fever in children, stressed the following: Be prepared to recognize as rheumatic fever in childhood any state of ill health with moderate fever and irregular pain in the muscles as well as the joints, especially in connection with recent acute upper respiratory tract infections. While the typical case with definite arthritis scarcely can be missed, these atypical cases are much more subtle and more common. Rheumatic fever in children under age three is very rare. Many of the cases so diagnosed in this epoch are scurvy, some form of epiphysitis, osteomyelitis or periostitis. While any tissue in the body might become involved in acute rheumatic fever, its greatest danger lies in the cardiac involvement. Its frequency as well as its danger demands close vigilance of the heart in the course of any acute illness in childhood from its onset. Rest is the most valuable treatment in rheumatic heart disease and it is usually to be measured in terms of months not weeks.

"Rheumatic Fever in the Adolescent and Those Later in Life," was the topic of William D. Stroud's paper. This was considered along five avenues. 1. Familial incidence which is greater than usually appreciated. Cardiovascular examination is recommended of every member of a family in which an acute case is observed, as is done with tuberculous patients. In the South the familial incidence is especially striking. 2. Seasonal incidence follows with considerable regularity, the peak being reached in March in Philadelphia; in February, in New York; in January, in Boston; and in December, in Great Britain. 3. The great importance of acute rheumatic fever in the production of heart disease in persons under age 20. 4. The age groups of heart disease in childhood and young adult life. First those of low resistance which progress to fatal termination within 10 years. The second or middle group which goes along from age 25 to 35 and break from so-called streptococcus infection, excessive physical strain, or some superimposed infection. The third group comprises those individuals with an unusually high tolerance to this infection and may live their natural expectancy. 5. The manner of reactivation of rheumatic fever in the average child and the character of the ultimate termination. Auricular fibrillation was shown to be a common sequence. 6. Intravenous vaccination, which he seemed to favor. Reactivation of the disease is associated with infections of the upper respiratory tract.

The part played by "The Tonsils and Adenoids in the Etiology of Rheumatic Fever," was analyzed by George M. Coates. This was preceded by a concrete description of the anatomy, physiology, and pathology of these

structures. The main point demonstrated was the fact that simple inspection could not determine with accuracy whether or not the tonsil was infected. Removal with subsequent laboratory examination is the only absolutely certain method of determining whether or not a tonsil is diseased. Pressure skillfully applied to a tonsil in situ may cause the evacuation of pus or mucus which may justify the belief of disease, but a negative diagnosis by this means cannot be relied upon. Microorganisms may culture themselves and produce toxins which may occasion no trouble, if the bodily resistance be great, but if low the possibilities are quite serious. He stressed particularly the history, the frank evidence of infection, cervical adenopathy, the bacteriology, the size and position of the tonsils, and the condition of the remainder of the throat. His views as to the relation of diseased tonsils to rheumatism are entirely orthodox and he believes early tonsillectomy to be a beneficial therapeutic measure.

"The Management of Rheumatic Fever" was presented by O. H. Perry Pepper. The difficulties that interfere with the proper management of a case include lack of money, lack of coöperation, ignorance—all those factors that make up the human equation. The indications for treatment are fundamentally rest, relief of pain, attention to nutrition and regulated convalescence. Prolonged rest is mandatory on account of the frequency of heart involvement and it often must extend over several months. The salicylates and fixation of the involved joints are essential. Digestive disturbances incident to the large doses of salicylates (which he recommends) may be avoided by the administration of equal amounts of sodium bicarbonate and large quantities of water. He warned against the dangers of the cinchophens and amidopyrine or pyramidon, since their bad effects were insidious and incapable of being controlled. He further advised moderate amounts of salicylates in rheumatics upon the occurrence of any subsequent upper respiratory tract infection. The necessity of safeguarding nutrition was stressed and of combating the anemia in rheumatic fever, controlling of the fluid intake, and adjustment of the diet at the proper level of caloric intake, are essential to early recovery. The administration of iron is also valuable. He further stressed the relation of the upper respiratory tract infections in the etiology of the disease, but particularly emphasized the nutritional aspects of the patient, before as well as during and after the attack.

In the discussion, Francis C. Wood emphasized the value of rest in children and mentioned the difficulties encountered in obtaining it. He also brought out the existence of a mild type of chorea as indicating prior rheumatic infection and suggesting the possibility of subsequent cardiac involvement. Nosebleed, headache, nausea, vomiting, repeated colds, etc., were mentioned as manifestations of rheumatic flare-ups. Anemia was also common. The rising weight chart in a rheumatic convalescence is a valuable indication of recovery. Thomas M. McMillan mentioned involvement of the arteries in the active disease which might account for many other organic disturbances.

SAMUEL HORTON BROWN, *Reporter.*

YORK

May 19, 1934

President James F. Wood, in the chair.

Gerald H. J. Pearson, associate in psychiatry, Graduate School of Medicine, University of Pennsylvania, Philadelphia, addressed the Society on "Acute Anxiety

States in Children, Their Etiology, Diagnosis, and Treatment."

He said in part: Anxiety states lie behind a great many children's problems; anxiety is a danger signal; anxiety is an extremely unpleasant feeling which children defend themselves against. First defense is inhibition against that which the child planned to do; difficulty in learning to read or to do arithmetic may often start the anxiety; inhibition of function (if unpleasant association) often occurs in children. Child often substitutes thoughts in order to avoid anxiety attack. Child suddenly behaving fearfully of a parent may set up an anxiety attack; stopping belligerent behavior of child toward parent may inaugurate anxiety complex. Antisocial habits (stealing) may result from an attempt to cover up anxiety complex, its discovery relieving the anxiety. If belligerent behavior stops, one will see why anxiety occurs; the state often starts in an acute manner.

Acute anxiety coming on because of some fear may disturb child's digestive functions; some reason for child's fear. Anxiety is akin to pain, generally a conflict between two ideas, with sudden fear resulting.

Aggressive behavior may precede the opposite state of depression and mental lethargy. Such behavior as children's fear of mother not liking her offspring or of mother going away and leaving them, may cause their inability to sleep, or various feeding difficulties, etc.

There are 3 distinct groups of fears in children: Fear of being deserted by parent; parent will not love or like children; and fear of bodily injury.

Children in anxiety attack are quite annoyed with parents: In such occasions as those in which parent tries to interfere or disturb child's desires, such as play, etc., child resists and gets angry with parent. Feeding difficulty may be the onset of anxiety complex.

Parent must not expect control of bowel or bladder until one year of age or with start to walk; children may suddenly succumb to the training habit of bladder and bowels. The training experience of children often causes fear, anger, and anxiety; it is better to have a

child show resistance to training than not, thus avoiding anxiety state.

Marital differences with tension between man and wife are often the cause of anxiety states in children. Suppressed desires often result from too severe training period. Desire to repeat early childhood behavior often brings on anxiety attack; attack may disappear spontaneously, but behavior change may follow.

There are two types of treatment: Curative; palliative.

Curative: Assure the child; ascertain his feelings toward parents; work with child concerning his pent-up feelings; this is a highly technical line of treatment. Curative treatment preferred to the palliative in these anxiety cases.

Palliative: If physician can become friendly with child and can get certain releases of fright from child, this may help; parents' rôle should be to reassure child that what he fears will not happen; allow and encourage parent to permit child to do what he fears to do. Physician should urge parents to state their marital situation and maladjustments.

In discussion, Henry D. Smyser, York, said heredity and environment are factors in behavior of children; neurotic children may present delirium, convulsions, and fever; night terrors always backed by a neurotic history. Gibson Smith, York, stated that intelligent sympathy in care of children, with proper investigation of parents; severe cases require technical treatment; acute anxiety neuroses in children are often overlooked. Lawton M. Hartman, York, said that often physician does not analyze case as thoroughly as he should. James E. Thorne, York, said as School Examiner, teachers often state children have been frightened (such as using public school toilets, etc.). Anton C. Sorensen, York, asked concerning the status of families which Dr. Pearson treats.

Dr. Pearson, in closing, stated that his patients generally come from the higher social status, intelligent families and of social and financial worth.

H. MALCOLM READ, *Reporter.*

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Bailly Road, Lansdowne, Pa.

AN INVITATION TO THE CONVENTION

The Woman's Auxiliary to the Luzerne County Medical Society extends an invitation to the wives of all the doctors throughout the State to attend the convention to be held in Wilkes-Barre, Oct. 1 to 5, 1934. Mrs. Edward Lyon, president of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania, met recently with Mrs. Charles Miner, chairman for the convention, and approved the convention plans submitted. We hope every woman will

plan to attend the convention and so help us to make it a success.

HELEN H. EDWARDS, *Chairman of Publicity for the Convention.*

COUNTY AUXILIARY REPORTS

Bucks.—The auxiliary met at Washington's Inn, Washington's Crossing, and had dinner with the doctors, after which Herbert T. Kelly, Philadelphia, read a scientific paper on "Metabolism and Diet in the Pneumonias." Following this the women withdrew for a business meeting. Mrs. Herbert T. Crough, president,

presided, with all officers in attendance, and a splendid representation of members and two guests present. Mrs. Frank Lehman and Mrs. Albert A. Gonzales gave a report on the Health Institute conducted in Philadelphia, April 10. Mrs. Crough appointed the following committees: Public Relations, Mrs. J. Fred Wagner, Bristol, chairman; membership, Mrs. William S. Erdman, Buckingham, chairman; *Hygiene*, Mrs. Frank Lehman, Bristol, chairman.

Dauphin.—The meeting was held at the Harrisburg State Hospital, 2:30 p. m. The program was in charge of the Periodic Health Examination and Public Relations Committee.

Howard K. Petry, superintendent of the hospital, delivered an account of the work done there after which the members inspected the hospital. Mrs. Petry with a committee of other members of the auxiliary were hostesses and served tea.

The members were invited to attend a reciprocity meeting with the Franklin County Auxiliary at The Old Court House, Shippensburg, on Wednesday afternoon, May 9.

Mrs. S. Dana Sutliff is president of the Franklin County Auxiliary and councilor of the Fifth District to which Dauphin County belongs and a number of members of the Dauphin Auxiliary attended the meeting.

The Ways and Means Committee have completed arrangements for a "Strawberry Festival" to be held on Thursday, June 21, from 4 to 8 p. m., on Mrs. David I. Miller's lawn. This will be the most ambitious effort at raising money for some time. Members are selling tickets for the "Community Theater" on a 50 per cent basis.

Two new members were elected this month.

Erie.—Officers were elected at the meeting on April 23, at the home of Mrs. Maxwell Lick.

Mrs. Clayton W. Fortune is the new president. Her supporting officers will be: Mrs. Frank B. Krimmel, president-elect; Mrs. Harrison A. Dunn, first vice president; Mrs. P. G. Mainzer, second vice president; Mrs. Lemuel A. Lasher, treasurer; Mrs. Irwin C. Krueger, recording secretary; Mrs. George H. Clapp, corresponding secretary.

A musical program was given following the business meeting.

The group held its last meeting, June 4, at Cold Brook Inn. Officers were installed and business of the year closed.

Lycoming.—The meeting was held, April 13, at the Woman's Club House, preceded by luncheon. Mrs. Charles W. Youngman presided. Mrs. Henry B. Mussina, chairman, Sewing Committee, reported that much material had been distributed among the various members to be made up for the Maternity Ward at the Williamsport Hospital. The auxiliary has planned a "mending day" for this hospital. A card party was held, during May, and the proceeds given to the Benevolence Fund. Mrs. Edward Lyon and Mrs. James H. Burrows gave an account of the auxiliary meeting which they attended at State College. At the meeting a visitor of the leprosarium in Louisiana described the work done. Mrs. Mussina supplemented this with an account of her visit to St. Vincent's Hospital, New Orleans, and its activities among the small children.

Montgomery.—A meeting was held, May 2, at the nurses' dormitory with Mrs. Herbert B. Shearer, president, in the chair. Routine business was discussed and reports from all Committees received. Four new mem-

bers were admitted to the auxiliary. Mrs. Guy Gundaker, president, Auxiliary of the Skin and Cancer Hospital, Philadelphia, addressed the members. Dr. James J. McShea, chairman, Child Welfare Emergency Committee, spoke of the Public Health Program and of the Child Health examinations given in the 4 county districts—Pottstown, Norristown, Glenside, and Ardmore—and that physicians are taking an active interest in this work.

Northampton.—The meeting was held, May 9, at the Hotel Bethlehem. Mrs. Delbert K. Santee, Mrs. Herbert J. Schmoyer, and Mrs. George A. Petruvias were hostesses. After luncheon, the business meeting was held, presided over by the president, Mrs. Arthur S. Fox. The main topic of discussion was the spring card party. Mrs. W. Gilbert Tillman, chairman of the committee, announced negotiations for securing the Northampton Country Club. Mrs. George Petruvias, of Bethlehem, was appointed in place of Mrs. William A. Finady, who found it impossible to serve on this committee. Mrs. J. E. Brown was appointed to assist her. Senator Reed gave a brief talk concerning his political campaign which embraced his activities in hospital work during the past few years. He mentioned his opposition to the establishment of state medicine in America. The remainder of the afternoon was spent at cards.

Philadelphia.—On Tuesday, May 8, the auxiliary held its season's grand finale. Beginning at 10:30 a. m. with a meeting of the Executive Committee the next activity was a business meeting of all members with annual reports and election of officers. The following officers were elected: President-elect, Mrs. Milton Fraser Percival; first vice president, Mrs. Walter S. Cornell; second vice president, Mrs. Curtis C. Eves; recording secretary, Mrs. John Burkhardt, Jr.; corresponding secretary, Mrs. I. Rendell Strawbridge; treasurer, Mrs. Harry S. Bachman; directors, Mrs. Fielding Otis Lewis, Mrs. Wilmer Krusen, Mrs. Samuel P. Gerhard. Mrs. Edward J. Klopp was installed as president.

The annual luncheon was held at 1 p. m. Mrs. Edward Lyon, State president, was a guest and gave a helpful talk. Lena Bricker's singing to the accompaniment of Rebecca Wallenbeck Walker made an interlude of rare enjoyment.

Mrs. Lewis R. Dick spoke on "Some New Poetry."

Medical News

Births

TO DR. AND MRS. CHARLES R. WOOD, Wesleyville, a son, Russell Alexander, recently.

TO DR. AND MRS. JOHN A. FRITCHEY, 2d, Harrisburg, a daughter, Margaret Ann, May 3.

TO DR. AND MRS. CLARENCE JAMES GAMBLE, Philadelphia, a daughter, Mary Julia, May 14.

Engagement

MISS CATHARINE McCORMICK ANSPACH, daughter of Dr. and Mrs. Brooke M. Anspach, Ardmore, and Mr. George Layng Pew, Villanova.

Deaths

MRS. MARY ALLEN CALEY, wife of Dr. Joseph M. Caley, Philadelphia; May 8.

FRANKLIN NOLL, Philadelphia; Jefferson Medical College, 1892; aged 62; in 1933.

MICHAEL M. RANKIN, Ridgway; Medical College of Ohio, 1876; aged 83; April 12.

VALENTINE J. YORTY, Pittsburgh; Baltimore Medical College, 1904; aged 57; April 17.

WALTER CHARLES BRADY, Slatesdale; Jefferson Medical College, 1912; aged 51; April 11.

FULTON R. STOTLER, Wilkinsburg; Jefferson Medical College, 1869; aged 86; April 28.

OLIN A. WILLIAMS, Butler; Hahnemann Medical College, Chicago, 1890; aged 75; March 29.

PERLEY NEWEL BARKER, Troy; Medico-Chirurgical College, Philadelphia, 1887; aged 78; April 4.

WILLIAM ALBERT NASON, Roaring Spring; Eclectic Medical College, Cincinnati, 1887; aged 72; April 29.

JOHN WILLIAM CRUMBAUGH, Huntingdon; University of Pennsylvania School of Medicine, 1878; aged 80; Jan. 27.

MILTON R. FISHER, Palmyra; Jefferson Medical College, 1877; aged 82; March 3, in the Good Samaritan Hospital, Lebanon.

WILLIAM PAUL OWEN THOMASON, Easton; Jefferson Medical College, 1897; served two terms on the school board; aged 63; April 29.

MAURICE MARKEL, Braddock; Jefferson Medical College, 1929; aged 35; Jan. 14, in St. Francis Hospital, Miami Beach, of injuries received in an automobile accident.

RICHARD BENSON STEWART, Warren; College of Physicians and Surgeons, Baltimore, 1881; member of his county and State medical societies; aged 72; March 25, pneumonia.

WILLIAM VAN KORB, Philadelphia; Jefferson Medical College, 1898; aged 65; April 17. A member of his county and State medical societies, and a Fellow of the A. M. A. He is survived by his widow.

NELLIE FRANCES NUNAN, Tehri, Tehri-Garhwal, India; Woman's Medical College of Pennsylvania, 1913; March 12, while in charge of a native state hospital at Tehri, a hill station in the Himalayas.

WILLIAM A. FRONTZ, Baltimore, Md.; Johns Hopkins Medical School, 1911; member of the urologic staff at Johns Hopkins University; aged 49; March 23, acute heart attack. Dr. Frontz was born in Williamsport, Pa.

JAMES E. COOPER, Cameron, W. Va.; Starling Medical College, 1897; aged 60; April 16, by a train while speeding in an automobile to his ill wife. Dr. Cooper was born in Greene County, Pa., in 1874, and was graduated from Waynesburg (Pa.) College.

ALFRED S. WEISS, Lebanon; Medico-Chirurgical College of Philadelphia, 1903; aged 53; April 2, from a heart attack. Dr. Weiss contracted a blood stream infection while performing an operation several months previously. He was a member of his county and State medical societies, and a Fellow of the A. M. A.

E. SAMUEL HARNIT McCauley, Beaver; Cleveland Medical College (Homeopathic), 1897; aged 61; died May 1. Dr. McCauley specialized in surgery. He was a member of his county medical society (a former president), State Medical Society, and a Fellow of the A. M. A. He is survived by his widow, Mrs. E. Grace McCauley, who was State Secretary of Welfare during the administration of Governor John Fisher; and a daughter.

WALTER B. FOSS, Ashley; College of Physicians and Surgeons, Baltimore, 1887; member of his county and State medical societies, and Fellow of the A. M. A.; president of First National Bank of Ashley; a member of the Selective Service Board during the World War; an organizer of the former Riverside Hospital in Wilkes-Barre; an official of the Ashley Board of

Health; district medical adviser for Lehigh and Wilkes-Barre Coal Company, Glen Alden Coal Company, and Lehigh Valley Coal Company; aged 75; May 6, following an operation. His widow, 2 daughters, and 2 sons survive.

VINCENT ALOYSIUS CALLERY, Pottsville; University of Pennsylvania Medical School, 1925; aged 39; April 28, pneumonia. Dr. Callery specialized in orthopedics; was on the staff at the Warner Hospital and the Good Samaritan Hospital. He was born in Lansford, Carbon County, Pa., and served his internship at the Misericordia Hospital, Philadelphia. A member of his county and State medical societies, and a Fellow of the A. M. A. He is survived by his widow and 3 children.

CARLE LEE FELT, Philadelphia; University of Pennsylvania School of Medicine, 1894; aged 64; May 2, heart disease. Dr. Felt was born in Emporium, Pa.; graduated in 1890 from the Wake Forest College, N. C. He served his internship at St. Joseph's Hospital, Philadelphia, and on termination thereof became associated on the ear, nose, and throat department, later becoming chief of that department at Stetson Hospital. He was a member of his county and State medical societies, and a Fellow of the A. M. A. He is survived by his wife and a son.

MARY D. TATUM, Radnor; Woman's Medical College of Pennsylvania, 1889; aged 67; May 10. Dr. Tatum was the daughter of the late Dr. A. Mason McCollin, Philadelphia; senior member of the board of managers of her alma mater, and in late years was actively identified with the advancement of women's activities in the medical profession. Following the World War she was in charge of the hospital rehabilitation work of the American Friends' Service Committee in Poland. She was head of the emergency hospital established at Bryn Mawr for the care of victims of the influenza epidemic in 1919. She is survived by her husband, 2 sons, and a daughter, Dr. Julianna R. Tatum, Philadelphia.

THOMAS JOSEPH DAILEY, Plymouth; University of Pennsylvania School of Medicine, 1909; aged 50; May 11. Dr. Dailey was born in Avondale, March 5, 1884, the son of the late Mr. and Mrs. William J. Dailey. He was educated in St. Vincent's parochial school and Bloomsburg Teachers' College. Upon graduation in medicine, he interned at Mercy Hospital, Wilkes-Barre. He began general practice of medicine in Plymouth and later took postgraduate studies in New York and specialized in eye, ear, nose, and throat diseases. He was a member of the staff of Mercy Hospital, his county and State medical societies, and a Fellow of the A. M. A. He was devoted to music and continued his interest in the art as much as his practice permitted. His widow and several sisters survive.

MAX REYNOLDS GABRIO, Treviso; Jefferson Medical College, 1913; aged 50; April 26, following a heart attack. Dr. Gabrio limited his practice to ophthalmology and maintained an office in Philadelphia. Upon the termination of his internship he was appointed chief resident physician at the Philadelphia General Hospital for the Insane, and on completion of this service began the practice of ophthalmology in the Frankford section of Philadelphia. He was chief of the eye department of the Frankford Hospital; instructor in ophthalmology, University of Pennsylvania Medical School; on the staff of the Wills Hospital; an associate at the Graduate Hospital of the University of Pennsylvania. Dr. Gabrio took a course of study in ophthalmology in Vienna. He was a member of his county and State medical societies, and a Fellow of the A. M. A. His widow and son survive.

JOSEPH JOHN MEYER, Johnstown; Jefferson Medical College, 1915; aged 41; May 8, pneumonia. Attended a clinic at the Greensburg Hospital, May 3, and became suddenly ill soon after his return home, failing to rally.

Dr. Meyer was born at Kernville, Nov. 1, 1892, the son of John and Katherine Meyer. He received his

early education in the Johnstown schools. Upon graduation in medicine he interned in Chester Hospital, Chester, Pa., returning to Johnstown in 1916. He did postgraduate work in medicine in the University of Pennsylvania, Harvard Post-Graduate School, University of Pittsburgh, and special work in tuberculosis at the Sharon Tuberculosis Sanatorium, Boston.

Dr. Meyer was a member of the staffs of the Memorial Hospital, Johnstown, chief of the medical service; the Mercy Hospital; and chief of the adult medical service of the City Hospital for Contagious Diseases; health officer of Southmont Borough for several years; had charge of the State Genito-Urinary Clinic for 5 years; and served as an examiner at the State Tuberculosis Clinic. He was a member of the Welfare Committee of the city; served as secretary of his county medical society from 1922 to 1928, and president in 1929; member of the House of Delegates of the State Medical Society; member of the House of Delegates of the A. M. A. in 1931; editor of the *Medical Comment*, bulletin of the Cambria County Medical Society; chairman of the Committee to Confer With Governmental and Private Health Agencies of The Medical Society of the State of Pennsylvania.

He served as a first lieutenant in the U. S. Medical Corps during the World War. He was president of the Johnstown Middle Atlantic League Club, and organizer of the Johnstown Baseball Booster Association. He was president of the Kiwanis Club.

He is survived by his widow and 2 sons.

Miscellaneous

HUGH M. MOORHEAD, Erie, is taking a course in proctology at the Dover Street Clinic, Boston, under the direction of Frank D. Stanton.

MISS SUSAN C. FRANCIS, Philadelphia, was elected president of the American Nurses' Association at the Biennial Session, held in Washington, April 28.

THE RESIGNATION OF HARRY B. WILMER as a director of the Philadelphia County Medical Society was received by the board of directors. David J. Boon was nominated by petition to fill the unexpired term.

ROBERT F. RIDPATH AND LUTHER C. PETER, Philadelphia, addressed the Eastern New York Eye, Ear, Nose, and Throat Society, Albany, N. Y., April 18, on "Ocular Pathology Observed in Disease of the Paranasal Sinuses."

DR. WILMER KRUSEN, president of the Philadelphia College of Pharmacy and Science, delivered an address before a meeting of the Schuylkill County Pharmaceutical Association, April 26, at Necho-Allen Hotel, Pottsville. The address covered coöperation and organization among druggists.

THE FOLLOWING BEQUESTS were recently made:

Jefferson Hospital, Philadelphia, \$25,000, will of Miss Emma R. Comly.

Hahnemann Hospital, Philadelphia, half of the income from a \$35,000 trust fund, will of George C. Thomas, Jr.

AT THE MAY 2 MEETING of the College of Physicians of Philadelphia, the following papers were read: "Total Ablation of the Normal Thyroid in the Treatment of Patients with Chronic Heart Disease," Herrmann L. Blumgart, Boston; "Current Concepts of the Nature of Rheumatic Fever," Homer F. Swift, New York City.

THE THIRTY-FIFTH ANNUAL MEETING of the American Proctologic Society was held in Cleveland, June 11 and 12, with headquarters at Hotel Cleveland. The following Pennsylvanians delivered addresses: Curtis C. Mechling, Pittsburgh; M. S. Kleckner, Allentown; F. H. Murray, Chester; H. Z. Hibshman, E. C. Davis, H. E. Bacon, Philadelphia.

THE SENIOR CLASS of Jefferson Medical College, April 26, in the amphitheater of Jefferson Hospital,

presented to the college a portrait in oil of J. Torrance Rugh, James Edwards professor of orthopedic surgery. It was the 42d anniversary of his graduation from Jefferson, and for 41 years he has taught orthopedic surgery there. Dean Ross V. Patterson accepted the gift.

THE FOLLOWING PENNSYLVANIANS were on the program for the annual meeting of the American Association for the Study of Goiter held at Cleveland, O., June 7 to 9: Harold L. Foss, Danville, "A Review of the Development of Our Knowledge of the Physiology and Pathology of the Thyroid Gland; and Julian Johnson, Philadelphia, "An Experimental Study of the Function of the Superior Laryngeal Nerve and Its Practical Application."

THE GYNECEAN HOSPITAL INSTITUTE of Gynecologic Research of the University of Pennsylvania is conducting an intensive study of families into which congenitally malformed individuals have been born. Special interest centers in families in which malformations have appeared in two or more children. Physicians who have knowledge of any such families are urged to communicate with Dr. Douglas P. Murphy, Gynecean Hospital Institute, University of Pennsylvania, Philadelphia, Pa.

A MEMORIAL SERVICE in honor of the late David Bushrod James, Philadelphia, former professor of gynecology at Hahnemann Medical College, was held April 20, at Hering Hall, at which time an oil portrait of Dr. James was presented on behalf of the professional staff of Hahnemann. James M. Anders, representing the medical profession not connected with Hahnemann, made an address, and Earl B. Craig spoke for the faculty of the college.

THE FOURTH DISTRICT COUNCILOR COMMISSION meeting was held at Berwick, April 18, District Councilor E. Roger Samuel presiding. Subjects discussed were: Purpose, organization, mental health, unemployment relief payment, legislative commission, compensation laws, benefits of membership in county society, how well are your county dues collected, place and time of councilor meetings, news release in counties, postgraduate teaching, and the program of the next annual councilor meeting.

A PORTRAIT IN OIL of W. Wayne Babcock, Philadelphia, professor of surgery, Temple University Medical School, was presented to the university by the classes of 1933 and 1934 of the School of Medicine, May 2, in Mitten Memorial Hall. George W. Crile, Cleveland Clinic, delivered an address on "The Energy Background of the Genesis of Gallstones and of the Prevention of Immediate Postoperative Shock and of Later Digestive Disturbances." Members of the surgical staffs of the medical schools of Philadelphia extended greetings.

PHYSICIANS WHO SERVED THEIR INTERNSHIP at the Episcopal Hospital, Philadelphia, held a reunion at the hospital, April 27. Many are known widely for their activities in their profession. Edward T. Crossan was chairman of the Committee on Reunion Arrangements. The group inspected the dispensary building, one of the finest structures of its type, and other new buildings, and had luncheon with members of the hospital staff. A banquet was held with Louis H. Mutschler, chief surgeon at the hospital, serving as toastmaster. The speaker was Thomas R. Neilson, president of the institution's medical board.

THE SEVENTH ANNUAL GRADUATE FORTNIGHT of The New York Academy of Medicine, Oct. 22 to Nov. 2, will be devoted to a consideration of gastro-intestinal diseases. Sixteen important hospitals of the city will present coördinated afternoon clinics and clinical demonstrations. At the evening meetings prominent clinicians from various parts of the country who are recognized authorities in their special lines of work will discuss the various aspects of the general subject. A

comprehensive exhibit of anatomic, bacteriologic, and pathologic specimens and research material will be shown, many demonstrated. The profession generally is invited to attend. A complete program and registration blank may be secured by addressing Dr. Frederick P. Reynolds, The New York Academy of Medicine, 2 East 103d Street, New York City.

JOHN W. SHIRER, of the State Society Committee on Appendicitis Mortality, has noted from his current investigations of the appendicitis experience in the general hospitals and institutions in Pittsburgh that there is practically no mortality among patients operated on in mental and tuberculosis hospitals and among nurses in training schools. Obviously, no laxative is administered nor is there delay in operating on these patients; furthermore, a blood count is readily obtainable. This apparently concrete evidence, taken in contrast with the evidence of what happens when a laxative has been administered or there has been delay in operation (see PENNSYLVANIA MEDICAL JOURNAL, April, 1934, p. 560) should stimulate all to be on guard when called to see patients with acute pain in the abdomen.

THE AMERICAN PHARMACEUTICAL ASSOCIATION, May 9, dedicated the American Institute of Pharmacy, at Washington, D. C. The association was organized in Philadelphia in 1852 and chartered in Washington, D. C., in 1888. The American Institute of Pharmacy, erected by the American Pharmaceutical Association, houses the association activities which include the revision of the National Formulary, and cooperates in the revision of the United States Pharmacopeia both legal standards in National and State Food and Drug Laws. The association cooperates with state and national associations that have to do with the drug industry and pharmacy; the work done being in the interest of public health and legislation concerned with its promotion. The new building is a library and museum and will have a laboratory for work in the standards.

AT THE INVITATION of the Hungarian Medical Postgraduate Committee of Budapest, a medical study trip to Hungary is being organized. The plans provide for a fortnight visit to Hungary during which there will be postgraduate lectures and demonstrations in English at the principal University clinics and at the municipal thermal baths and springs. Reduced railroad fares and hotel rates are granted by the Hungarian Government. The party will sail from New York on Aug. 18, 1934, visiting Munich and Oberammergau en route. The return trip may be made, optionally, *via* Berlin, Paris, or Italy, arriving back in New York on Sept. 30. American physicians of good standing are invited to join. For further information, write Richard Kovacs, M.D., secretary of the American Committee, 1100 Park Ave., New York.

JOHN A. KOLMER, Philadelphia, professor of medicine, Temple University Medical School, delivered the Trimble Lecture at the One Hundred and Thirty-Sixth Annual Meeting of the Medical and Chirurgical Faculty of Maryland, Baltimore, on "The Etiology, Diagnosis, and Treatment of Septicemia."

At a meeting of the trustees of the Research Institute of Cutaneous Medicine, Philadelphia, April 23, Dr. Kolmer was elected president of the board of trustees and director of the Institute to succeed Jay F. Schamberg, deceased. Carroll S. Wright, professor of dermatology, Temple University Medical School, was elected a trustee to fill the vacancy created by Dr. Schamberg's death. At the present time the research activities of the institute are being devoted to a method for vaccination against acute anterior poliomyelitis, which has proved very successful in monkeys and believed to be applicable to vaccination of human beings; also to a method for vaccination against pneumonia; and to the production of new compound for the treatment of septicemia, tuberculosis, cancer, and syphilis.

A TRUST FUND of approximately \$200,000 (£39,000) has been created by anonymous donors to be used over

a period of 10 years for the establishment and maintenance of a department at the Hebrew University for research into the causes and cure of cancer, according to an announcement made by Dr. Judah L. Magnes, Chancellor of the Hebrew University in Jerusalem, at the conclusion, May 13, of a series of conferences with the American members of the Board of Governors of the university. Dr. Magnes announced that it is the intention of the university to use part of the available funds for the erection and adequate equipment of special laboratories at the university.

The plan worked out by the Hebrew University provides for research in radiobiology, physiologic chemistry, and the study of cells and tissues. By selecting for research important phases of the cancer problem, and by emphasizing the necessity and advantages of concurrent laboratory and clinical research, it is hoped that some contribution of value may be made from Jerusalem towards the understanding of this dread disease. The university proposes to begin its work in cancer research in those fields in which the material at hand is sufficient to place the laboratories on a level with similar scientific institutions in Europe and America.

AT THE REGIONAL MEETING of the Pennsylvania Conference on Social Welfare, held at Huntingdon, May 25 and 26, John M. Keichline, chairman, Sponsoring Committee, Huntingdon Regional Conference, presided. All meetings of the Pennsylvania Conference on Social Welfare are open to any interested person. While membership in the Conference is not required in order to attend any session (except the Institutes), but persons who can afford to do so are asked to become members and contribute \$2 or more to the expenses. Members and contributors receive Conference Bulletins and Proceedings.

The Institutes are designed primarily for persons engaged in welfare work, for public officials, and board members of public and private welfare agencies.

Application for membership should be made to the Pennsylvania Conference on Social Welfare, 519 Smithfield St., Room 501, Pittsburgh, Pa. The Institutes constitute short courses of study as follows: Social Case Work; Fundamental Principles in the Treatment of Individual Delinquents; Mental Health; Emergency Relief, Problems of Investigation; and Transients and Homeless.

The Institute in mental health is conducted by O. Paul Holmer, psychiatrist, Bureau of Mental Health, Department of Public Welfare, Harrisburg.

Among the papers read were "The State's Emergency Child Health Program"; and "A County Emergency Child Health Program," by Charles H. Smith, Uniontown.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

NEW AND NONOFFICIAL REMEDIES, 1934, containing descriptions of the articles which stood accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1934. Cloth. Price, Postpaid, \$1.50. Pp. 510; lx. Chicago American Medical Association.

The enrichment of the indexing started a few years ago is continued in New and Nonofficial Remedies, 1934, and its value even increased by some desirable simplification of cross references.

The Council has made the usual careful revision of the book. The general article, Lactic Acid-Producing Organisms and Preparations, has been practically rewritten. The chapter on arsenic preparations has undergone some revision, especially in the statement concerning neoarsphenamine. The descriptions of Chinio-

fon and Vioform have been revised in the light of recent developments in the treatment of anebiosis. The article on ethylhydrocupreine has been revised to delete references to optochin base, which has been omitted; optochin hydrochloride has been retained, being recommended only for external use. The description of typhoid vaccine has been revised to give the dosage of the combination of typhoid and paratyphoid organisms and to mention the use of typhoid vaccine in nonspecific protein therapy. A number of revisions of the Council's Rules have been made, particularly with reference to the names of products, which is one of the most frequent and troublesome of the problems with which the Council has to deal. Comparison with last year's volume will show that revisions of more or less importance occur in many other chapters.

Among the preparations newly included in this volume are: Aminophylline, a double salt or mixture of theophylline and ethylenediamine, with the advantage of greater solubility over other theophylline preparations; the new alum precipitated diphtheria toxoid; Neo-Iopax, a new medium for intravenous urography; Benzedrine, an ephedrine substitute; serums containing type II pneumococcus antibodies, which the Council has recently recognized as worthy of clinical trial in view of improved preparations and technic; autolyzed liver concentrate and extralin, two new liver preparations for use in the treatment of pernicious anemia; Metycaine, a new local anesthetic; and Sodium Morrhuate, a salt of the fatty acids of cod liver oil, proposed for use as a sclerosing agent.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1933. Cloth. Price, Postpaid, \$1.00. Pp. 188. Chicago. American Medical Association.

This volume, considerably increased over that of recent annual volumes, is taken up with reports on products which the Council has found unacceptable for inclusion in New and Nonofficial Remedies. Of special note are: The report on Alpha-Lobelin, a drug upon which the Council in 1927 issued a preliminary report but which is now found not to have established itself as a respiratory stimulant of as great usefulness as carbon dioxide and oxygen; the report on a number of preparations marketed by the Upjohn Company with unwarranted, misleading and unscientific claims; the report on Clavipurin, a preparation of the alkaloids of ergot, marketed without adequate declaration of the composition and without adequate standardization under a nondescriptive proprietary name with unwarranted therapeutic claims; the report on Diamypsal, pyridine derivative proposed for use in bacterial infections, convincing evidence for the therapeutic value of which is lacking; the report on Euphydigital, an irrational mixture of digitalis and a theophylline preparation marketed under an uninforming, proprietary name, with exaggerated and unwarranted claims for its therapeutic value; the report on Guphen, stated to be the guaiacol ester of phenyleinchoninic acid, marketed with unwarranted therapeutic claims under an uninforming, proprietary name and having no proved advantage over its constituents administered separately; the report on Niazo, a pyridine compound of unsubstantiated value as a urinary antiseptic; the report on Omnadin, a preparation recognized for use for nonspecific lipoprotein therapy practically as a cure-all; and the report on a group of endocrine preparations of the Rovin Laboratories variously unacceptable as being of indefinite composition and of undemonstrated therapeutic value.

A feature of marked current interest in this volume is the preliminary report on Alpha-Dinitrophenol, the new drug for acceleration of cellular metabolism. The Council voices a warning on the dangers attending the use of this drug; this warning has been increasingly justified in reports of fatalities since the appearance of the Council's report in July of last year. Other pre-

liminary reports which make this volume one of the most interesting issued by the Council in recent years are those on Dilaudid, a new narcotic drug related to morphine; Fuadin, a new antimony compound for use in the treatment of bilharziasis and granuloma inguinale; and Hippuran, a new product for intravenous and oral urography. The comprehensive and definitive special report on estrogenic substances furnishes a much needed review of the present status of such products in gynecologic therapy. The Council insists upon the doctrine that basic laboratory investigation of these substances should precede clinical use. Of interest to hospital authorities, especially in connection with the book *Hospital Practice for Interns* recently issued by the Council in collaboration with the Council on Medical Education and Hospitals, is the special report, *The Hospital Formulary*, by Hatcher and Stainsby of New York. It outlines a plan characterized by the highest regard for the principles of rational drug therapy. Of more general interest is the Council's second report on the intravenous use of barbital compounds which is the result of a questionnaire sent to representative physicians. In view of the answers to the questionnaire, the Council reaffirmed its previous decision concerning the limitations of intravenous use of barbital compounds; namely, that these preparations should be administered intravenously only in a limited number of conditions in which administration by other routes is not feasible. The report carefully details these conditions. The lengthy report on the omission of Pyridium is an outstanding example of the meticulous fairness characteristic of the Council's treatment of the manufacturers of commercial preparations. In connection with the omission of Pyridium should be noted the report which declares Azophene (Mallophone) not acceptable. This product has been shown to be identical with Pyridium and the Council considers the claims for its usefulness as a local, general, or urinary antiseptic as unwarranted, as are those for Pyridium.

MANUAL OF DETERMINATIVE BACTERIOLOGY (Fourth Edition): David H. Bergey, formerly of the University of Pennsylvania, assisted by a committee of the Society of American Bacteriologists. Williams & Wilkins Co., Baltimore, Md. 1934. Price, \$6.00.

The fourth edition of Bergey's *Manual of Determinative Bacteriology* is quite a distinct improvement over former editions. The book has been arranged by a bacteriologist, assisted by a committee from the Society of American Bacteriologists, though the Society, according to a foreword in the book, "disclaims any responsibility for the system of classification followed."

It is, however, a valuable book for bacteriologists, and should be in the library of any one engaged in bacteriologic determination, classification, or research. The bacteriologist whose interest lies chiefly in the field of medicine will find it to be of value not only in the system of classification but also in the fact that all types of bacteria, pathogenic, and nonpathogenic, are included under the various families, tribes, genera, etc. In this respect, he should find the manual a distinct aid in the classification of both pathogenic bacteria and those nonpathogenic contaminants which occasionally prove to be time consuming and annoying. The book, as its title indicates, is a manual for determining the classification of bacteria and as such would be of limited value to the general practitioner of medicine, though it can be highly recommended to bacteriologists.

(Students' Aid Series)
THE POCKET ANATOMY. C. H. Fagge, M.B., M.S. London, F.R.C.S. Price \$2.00. William Wood & Co., Baltimore, Md.

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(Continued on page xii.)



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BOOK REVIEWS

(Continued from page 794.)

AIDS TO PATHOLOGICAL TECHNIQUE. David H. Haler, M.B., B. S. (Hons.). London. Pathologist, Infants' Hospital, S. W. i; Battersea General Hospital, S. W. ii; late assistant pathologist, Prince of Wales' Hospital, London, N. 15; Gillson Research Scholar Society of Apothecaries, London. William Wood & Co., Baltimore, Md. Price, \$1.50.

A handy inexpensive guide to the ordinary technic in pathology. The information given is arranged in a systematic manner which makes it very valuable in the routine of laboratory work.

AIDS TO QUALITATIVE INORGANIC ANALYSIS. R. G. Austin, B.Sc. (London), A.I.C., F.R.M.S., associate of University College, Southampton Demonstrator, St. Thomas' Hospital Medical School, lecturer on chemistry at Wimbledon Technical College, S.W. Price, \$1.50. William Wood & Co., Baltimore, Md.

An excellent guide to the student in performing and acquiring the essentials of inorganic chemistry.

SURGICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month.) Volume 14, Number 2. (New York Number—April, 1934), 293 pages with 71 illustrations. Per clinic year (February, 1934, to December, 1934.) Paper, \$12; Cloth, \$16 net. Philadelphia and London: W. B. Saunders & Co., 1934.

The controversial subjects for discussion in this issue are many: Old-fashioned prostatectomy versus the new methods of cauterization with reversion to the former method and rightly so; whether or not the submaxillary gland should be removed in Ludwig's angina. A wide cutthroat incision without suture is as efficacious. Is total gastrectomy or posterior gastro-enterostomy the proper procedure in peptic ulcer? The majority of surgeons favor gastro-enterostomy. Is nonabsorbable suture preferable to absorbable in the first line suture in a gastro-enterostomy? It makes no difference in the incidence of recurrent ulcers. An interesting case of diaphragmatic hernia in a child age 13 days is reported cured following operation. The reader is brought up to date after a perusal of this volume.

TREATMENT IN GENERAL PRACTICE. Harry Beckman, M.D., professor of pharmacology, at Marquette University School of Medicine, Milwaukee. Second edition, Cloth. Revised and entirely reset. Pp. 889, with illustrations. W. B. Saunders Co., Philadelphia. 1934. Price, \$10.00.

The general plan of the first edition, which Dr. Beckman modestly calls "A presentation of the therapeutic experience of physicians all over the world," has been maintained along with the other fundamental feature of presenting impartially the evidence on controversial points usually with a concluding summary, in which the author expresses freely and incisively his own judgment. The revision has been exhaustive both in deleting obsolete methods as in adding well established new ones.

Internal medicine is covered well; there are shorter chapters on genito-urinary infections and stone; on diseases of the skin; acute poisoning; opium and cocaine addiction; burns; obstetrics and miscellaneous topics such as chronic nonspecific arthritis, essential dysmenorrhea, delirium tremens, etc. Minor surgery is omitted entirely. The chapter on diseases of the nervous system appears to the reviewer to be too short: in later editions one should like to see a more thorough discussion of intracranial hemorrhage, (extradural, subarachnoid, intracerebral, etc.), of neuralgia and neuritis and their relations to fibrositis and streptococcal sensitiza-

*(Concluded on page xiv.)***"Service—Professionalized"**

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BOOK REVIEWS

(Concluded from page xii.)

tion, the general treatment of acute diseases of the nervous system, the treatment and nursing of the neurologic bladder, *etc.*, to mention just a few of the problems which the practitioner must meet, and meets frequently.

The summaries at the beginning of many discussions of individual diseases are very useful and illuminating. The book is unusually up to date: it presents in detail such recent acquisitions as the use of methylene blue in cyanide poisoning and its uselessness in carbon monoxide poisoning; the sensitization theory of agranulocytosis, *etc.* The list of the principal additions is impressive: acetylsalicylic acid poisoning, blackwater fever, bronchomycosis, erysiploid, food allergy, gasoline and kerosene poisoning, hiccup, hyperinsulinism and dysinsulinism, hypothyroidism without myxedema, lead poisoning, lymphogranuloma inguinale, malnutrition, methyl chloride poisoning, prophylaxis of gonorrhea in the female, serum sensitization and desensitization, simple achlorhydric anemia, strongyloides infection, tear gas burns, tetany, varicose ulcer, and a section on vehicles and incompatibilities, which should facilitate correct prescribing. The selected literature in the appendix makes a detailed survey of special problems immediately available.

The paper is good, the binding pleasing and typographical errors are few. The book is recommended to any student or practitioner, who will not turn to it in vain, in his quest of a summary of practically all special and most modern methods of treatment.

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No. 10

STERILITY IN THE MALE*

FRANCIS R. HAGNER, M.D., WASHINGTON, D. C.

The subject of sterility in the male is herewith presented chiefly from the standpoint of operative correction. It may not be amiss, however, by way of introduction, to review the various causes of this sterility.

Though childless wedlock is due in the majority of cases to the female, the share of the other partner in the union should also claim attention. Reliable statistics show that the male is at fault in about 1 case in 6, or even more. Grosse found the male deficient in 18 per cent in a series of 192 cases. Forty-five per cent of the soldiers in the German Army who had bilateral gonorrheal epididymitis were found to be sterile. Noeggeroth found 8 sterile marriages in a series of 14 to be due to the male.

It is, therefore, essential to examine carefully into the procreative ability of the male. The rule has usually been to consider the man sexually normal if his genitals are well developed, if he could copulate in a normal manner, and if he had what seemed to be normal ejaculations of semen. With the advance of genito-urinary surgery, however, the condition of the semen and the integrity of the seminal tract have been more carefully studied and important facts have been brought to light.

In the first place, sterility may be due to aspermia, or failure of elaboration of the semen. For this condition, depending as it does on developmental defects, there is no remedy.

Second, sterility may be due to azoöspemia, an absence of spermatozoa in the semen.

Third, the cause may be oligospermia — the spermatozoa, though present in the semen, are few in number, motionless, or have only transient movement.

Fourth, anatomic abnormalities may be present which prevent the passage of semen through

the urethra, or which (as in the case of hypospadias and fistula) allow the escape of the semen outside the normal channel.

Fifth, the presence of a stricture in the urethra may prevent the escape of the semen.

Finally, in those cases in which no specific cause can be found in either sex, we are forced to consider the theory of sexual incompatibility, or an apparent lack of affinity of one cell for another, as demonstrated in the experience of a childless first marriage followed by later fertile marriages on the part of both members. Breeders note this phenomenon in the mating of stallions and mares.

There may be inability to copulate even though the sexual organs are well developed. In these cases the subject has usually been the victim of some psychical or endocrine disturbance. The prolonged and frequent overstimulation of the secreting structure of the testicle finally results in exhaustion of the gland, with production of imperfectly formed spermatozoa, even though the quantity and quality of the fluid may be normal. Such cases can be cured if the patients can be made to lead a hygienic sexual life.

Men with double undescended testicles are almost invariably sterile. Many authorities believe that in these cases sterility occurs shortly after puberty. This belief may be an argument in favor of operating on double undescended testicles before puberty in order to prevent this complication. We have had several such patients whom we operated upon before puberty with the result that the patients later secreted spermatozoa and impregnated their wives. Men who have received serious injury to the secreting structures of the testicles may also be sterile. My impression is that all cases of bilateral retention of the testicle in the abdomen are sterile and that many are almost asexual.

Bilateral tuberculosis of the epididymis frequently causes sterility through destruction of

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

the epididymis or the testicle. Here there is no hope of cure. In bilateral gumma of the testicle, which also causes sterility, cure may follow specific treatment. One of my patients had bilateral gumma making a mass almost as large as a man's head. On examination after intensive treatment, the testicles appeared normal. This patient afterward secreted normal spermatozoa and has since been the father of seven children.

Another cause of sterility is the roentgen ray. Workers in roentgen-ray laboratories, however, usually recover after they have withdrawn from exposure to the rays.

When inflammation has attacked the greater portion of the prostate so as to block up the ejaculatory ducts, after an orgasm, there may escape two or three viscid drops that contain principally pus cells and degenerated prostatic cells, but no spermatozoa. In other cases there may be so much pus present as to cause the spermatozoa to die when they come in contact with the fluid. Such a condition is diagnosed by a microscopic examination revealing pus and dead spermatozoa in the fluid obtained by massage of the prostate and seminal vesicles, or better, by that normally ejaculated. I have seen several patients cured of sterility of this character by appropriate treatment of the prostatic condition.

Atrophy of the testicles following bilateral orchitis, or epididymo-orchitis in mumps, is not infrequently a cause of sterility. This condition differs materially from gonorrheal infections, as it is a true orchitis.

Of all the causes of sterility, however, as shown by numerous statistical studies, the principal one is bilateral gonorrheal epididymitis. Orchitis itself probably never occurs in gonorrheal infections. This statement is based on our experience in the operative treatment of gonorrheal epididymitis, as in more than 300 cases we have never found evidence of involvement of the testicle itself—the epididymis and tunica vaginalis seeming to bear the brunt of this infection.

Traumatic epididymitis rarely leads to sterility. In bilateral gonorrheal epididymitis the healing process leads to the formation of scar tissue which causes an occlusion of the efferent ducts of the epididymis, and this prevents the egress of the normal spermatozoa, which are formed by the unaffected testes. The globus minor is the portion of the epididymis most involved, and it is in this very portion that occlusion has the most dangerous results, as there is here but one efferent duct. In the globus major the efferent ducts are numerous, and the obstruction of one or two would still leave open other channels.

It was because of the known patulency of the globus major following gonorrheal epididymitis, when the globus minor and the vas deferens in this region became occluded, that the anastomosis of the vas deferens and the globus major was made by Edward Martin, of Philadelphia, who was the pioneer in this field. The endeavor to overcome the occlusion by such an operation offers the only chance of recovery. It is interesting to note that we have never had a case of sterility of this type that was sexually impotent.

It is my purpose to speak more at length concerning our successes and failures in the carrying out of this procedure. We open the tunica vaginalis and expose the entire epididymis, as from this approach we are better able to pick out the portion of the globus major richest in tubules, thereby facilitating the discovery of the portion that may contain live spermatozoa. On opening the vas we used to inject argyrol, noting its appearance in the urine, to be sure that the vas was patulous.

We have, however, discontinued this technic, deeming it important to keep all foreign substances that might tend to cause cicatrization away from the field of operation. We now use the finest tear-duct probe to be sure the lumen has been entered, following this with a smooth strand of silkworm gut, which can, in the unobstructed vas, be passed from 16 to 20 cm. If, on rectal palpation, there is no evidence of infiltration of the ampulla of the vas, we can be reasonably sure that the vas is patulous. If it is obstructed beyond this point there is no hope of an operative cure. After this examination has been made we select a likely looking place in the epididymis, cutting out an elliptical piece.

If live spermatozoa are present, a milky fluid is usually obtained as soon as the section is removed. The fluid is at once examined on a warm slide, the presence and motility of the spermatozoa being noted. If no spermatozoa are found, this incision is closed with a catgut suture. Another place is selected, and the same procedure is followed. It used to be thought that the spermatozoa were not motile until they came in contact with the prostatic secretion. This belief, however, has been disproved, as they are now known to be actively motile in the epididymis even when occlusion has been present for many years. The testicle is the only gland that does not atrophy when the efferent duct is occluded. This is so important a gland to the well-being of the individual that nature has surrounded it with every protection.

We have tried several types of suture—very fine silk, catgut, and very fine silver wire. Our only successful operations are those in which we

have used the silver wire. There is no explanation for this fact unless there is less tissue reaction with the silver wire than with the other sutures.

Nearly all our operations have been done by lateral anastomosis, except a few rather atypical ones to be mentioned later. Sometimes we find occlusion of the vas at the first incision, and by going further up the vas it is possible to get above this obstruction. Unless great care is exercised to cut only into the lumen of the vas, which is recognizable by the yellowish tinge of its lining, there is a likelihood of the operator carrying the incision through the entire diameter of the tube. It is important not to strip the vas deferens too close.

The first suture is placed at the distal end of the incision in the vas, taking a good heavy bite, as this is the anchoring suture for the operation and the obstruction is below this point. The suture is then anchored firmly in the lower end of the elliptical incision of the epididymis. Two lateral sutures are then placed to take a fairly heavy bite in the epididymis and include some of the cut tubules. If only the fibrous covering of the epididymis is taken up in the suture the cut tubules drop back when the anastomosis is made. The suture is then passed through the cut edges of the vas, taking just enough tissue to approximate the edges. The last suture is then passed in the same way through the upper end of the incision in the epididymis. It is then passed through the vas, at the upper angle of the incision, being carefully placed so as not to occlude the lumen. We test this out with a tear-duct probe. The anastomosis is then complete.

Reynolds, in a recent book on sterility, has made the statement that the vas deferens is never at fault as a cause of sterility. He is certainly mistaken in this statement.

Often it can be determined before operation if the case is inoperable. Such cases on palpation of the vas show distinct beading. These are nearly always occluded and, therefore, inoperable as regards cure.

We know in operating upon a spermatocele that unless we remove every part of the sac (which means the removal of the small duct that leads into the cyst), a recurrence of the spermatocele is liable. It is assumed that this same condition obtains in the individuals in whom a cure is effected; namely, that a sinus is formed between the incised vas and one or more tubules in the epididymis that acts in the same way as the duct that leads to a spermatocele.

A failure, at one time, if live spermatozoa are present, and if the vas is patulous, is no contraindication to a second operation. In some of our

most successful results there was a failure the first time, with favorable outcome at the second operation. The time of the appearance of the spermatozoa varies. We have seen individuals who have had actively motile spermatozoa one month after operation; others vary from one month to nearly a year. We do not reoperate under one year, as we have had successes that did not manifest themselves until 8 or 9 months after operation. In one case the first evidence of cure the patient noted was his wife's pregnancy. He was in an unhappy frame of mind until we found he had thousands of spermatozoa.

Before operating, repeated examinations for spermatozoa have been made either by ourselves or by the surgeon referring the patient. Some patients were sent to us as sterile who were found not to be so. We should be very careful in diagnosing sterility in patients on whom too frequent demands have been made on the secretions before examination. It is most important to examine an ejaculated specimen of semen, and not rely on that obtained by massage of the prostate and seminal vesicles.

I have not tried the method advanced by Lespinasse, of dissecting out a single tubule and implanting it with a removable suture.

It is important to control all bleeding either by torsion or pressure before making the anastomosis. We have always done a bilateral operation, being careful not to make the incision in the vas too high up, thus giving us a double chance for a cure, and in case of failure the first time, allowing for a subsequent operation.

On the 63 patients here reported there were 75 operations. Twelve patients were reoperated upon because of initial failure. Of these 12, seven were cured by the second operation. In 3 instances we found in the epididymis of one side actively motile spermatozoa with an occlusion of the vas on this side, the vas appearing as only a fibrous cord. On the opposite side we found no spermatozoa in the epididymis, but the vas was patulous. A crossed anastomosis was done; that is, the patulous vas was brought through the scrotal septum and anastomosed to the epididymis that contained the live spermatozoa. I have been very eager to obtain a success in this type, but unfortunately all 3 failed of cure.

We have had one interesting case in which one side showed no spermatozoa in the epididymis; on the opposite side, the globus major was replaced by a small spermatocele. An anastomosis was made between the vas and the spermatocele. Within 6 weeks after the operation this patient had live spermatozoa, and in less than a year his wife gave birth to a child.

Another patient had a spermatocele on one

side and live spermatozoa in the opposite epididymis. An unsuccessful anastomosis was made between the vas and the spermatocele as well as the usual one on the opposite side. We have made 3 anastomoses directly into the testicle, but without result. This operation is useless, as it seems necessary for a possibility of cure to find live spermatozoa in the tubules of the globus major.

The total number of cases here reported is 63. Others have been brought to us on whom we refused to operate as a cure was unlikely.

In 25 of the 63 cases the patient had either double occlusion of the vas or else bilateral absence of spermatozoa in the epididymis; in one case there was absence of the vas on one side and on the other a fibrous cord. Included in this series were 4 cases previously operated on by other surgeons; in only one of them were we able to make an anastomosis, as there was so much scarring of the epididymis that no spermatozoa could be found.

In 2 cases the operations have been too recent to warrant definite conclusions, and in 2 cases the result is unobtainable.

Eliminating from the total the 4 nonreportable cases and the 25 cases discovered at the exploratory operation to be inoperable by reason of occlusion of the vas or absence of spermatozoa in the epididymis, there is a remainder of 34 cases favorable for operation. Of these, 21, or 61.8 per cent, were cured. The figure includes those patients reoperated upon after an initial failure. Fourteen of the 21 patients cured begot from 1 to 6 children, and in one case impregnation was followed by a miscarriage.

Nearly all the successful cases have had a history of bilateral epididymitis, and it is following this lesion that we can look for the most favorable results.

Two conditions are necessary for successful outcome: (1) Motile spermatozoa must be present on incision of the globus major. (2) The vas must be patulous, as proved by the passage of a strand of silkworm gut 20 to 25 cm. up the incised vas deferens.

The operation, though tedious, is not dangerous to life. We have always used general anesthesia. In order to avoid scar tissue, no local infiltration should be used. The operation cannot compromise the function of an organ that has already proved functionless.

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ABSTRACT OF DISCUSSION

WILLIAM H. MACKINNEY (Philadelphia): My discussion is based on a study of sterility existing in 439 cases. The husbands in these cases have been examined

through the coöperation of gynecologists. The investigation of a sterile marriage is usually initiated by the wife; and naturally those cases of sterility grouped as "impotentia coeundi" are not to be found in these cases among the causes of sterile marriage. The period between the date of marriage and the date of examination relative to the sterility varied from 3 months to 10 years.

It has been my practice to examine the condom specimen of semen in all cases within 2 hours after ejaculation and depending upon the number, morphology, and motility of the sperm to divide these cases roughly, at first, into 2 groups: 1. Those presenting normal semen containing an uncountable number of spermatozoa, showing a normal histology and active motility. 2. Those in whom abnormalities exist in the composition of the semen or in the number, morphology and motility of the spermatozoa. Thus we separate at once those obviously not to be suspected from those manifestly sterile or to be suspected as lacking in virility.

Of the 439 cases examined, 241 were adjudged blameless and 198, or 45 per cent presented evident abnormalities. In all cases presenting abnormalities in the semen a second or third examination was made and a careful local and general physical examination carried out to determine, if possible, the underlying pathology. In 111 cases, the semen was entirely devoid of spermatozoa, constituting a complete azoöspemia. In 87 cases there appeared abnormalities in the character of the semen or in the number, morphology, or motility of the existing spermatozoa. A complete absence of spermatozoa denotes either a failure on the part of the testicles to manufacture sperm or a failure of the conducting apparatus to convey the spermatozoa to the ejaculate. A complete failure of spermatogenesis occurs if the testicles remain infantile or become atrophic from disease, chiefly epidemic orchitis or injury. There is also a group of cases in which testicular development apparently reaches a degree within normal limits and yet for some unknown reason fails to produce spermatozoa. It is this latter class that is of chief interest and its pathology is as yet undetermined. It has been known to occur after some of the acute infections, particularly after a type of obscure infections grouped among the influenzas. It may be temporary or permanent. The control of the function of spermatogenesis has never been determined but will probably be found under some endocrines. In this series of cases, sterility was attributed to an absence of spermatogenesis in 23 cases.

By far the most frequent among the causes of azoöspemia is total obstruction in one or more parts of the epididymi, vasa deferens, and ejaculatory ducts. These obstructions are almost invariably of chronic inflammatory type, and follow as a sequel to complicated gonorrheal infection. Azoöspemia in this series of 198 cases occurred in 3, of which 88 were, as near as could be determined, of the chronic inflammatory obstructive type, and 23 were attributed to defective spermatogenesis.

It is not always easy to determine whether azoöspemia is purely defective spermatogenesis or defective conduction, or possibly a measure of both. With an antecedent history of gonorrhea with complications of previous epididymitis or prostatitis, obstructions are to be considered. The residual fibrous nodules in the epididymi are the pathologic symbols of a previous active infection. A hard, scarred, fibrous prostate with purulent prostatic secretion is another and further evidence of probable defective conduction.

In the remaining 87 cases, examination of the semen showed a pronounced reduction in the number of

spermatozoa, accompanied generally with changes in their morphology and motility. The most common factor was a marked diminution in the number of sperm, constituting the so-called oligospermia. In a microscopic field (Leitz No. 6 lens and No. 3 eyepiece), there are normally an uncountable number of spermatozoa, and the question arises as to what stage of reduction must be reached before an oligospermia is diagnosed. Some regard a diminution below an average of 25 spermatozoa to a field as a pronounced, definite oligospermia and if this exists in conjunction with morphologic changes in the spermatozoa and a failure of motility in repeated examinations, it is a probable and likely cause of the sterility. It is in this class of cases that one must be extremely careful in giving an opinion. Never commit yourself to the positive statement that these patients are responsible for the marital sterility, as one may do in cases of complete azoöspemia. All possible factors, particularly sexual habits; the effect of intercurrent infections, particularly influenza and allied infections; constitutional diseases, such as diabetes and secondary anemias; partial obstructive lesions of the conductive apparatus and endocrine imbalance, must be considered. Repeated examinations of the semen should be insisted upon before giving an opinion. I have found diabetes twice in routine examinations of the urines in this class of patient and have noted an increase in the number of sperm if the patient was placed upon dietetic and insulin treatment. With the correction of a secondary anemia, the result of long-continued bleeding from hemorrhoids, the number of sperm have increased. The treatment of an old case of chronic prostatic infection and the resultant relief of pressure upon the ejaculatory ducts is often attended with a definite increase in the number of spermatozoa.

It appears that there is a close relation between the endocrines of the genital organs and the anterior lobe of the pituitary.

The treatment of oligospermia or azoöspemia of spermatogenic origin is as yet unsatisfactory but offers a fertile field for experimentation with the endocrines. I will not discuss this aspect of the subject. Endocrines will be of greater benefit in promoting the development

of male characteristics rather than in establishing a more active spermatogenesis.

The treatment of complete azoöspemia caused by fibrous exudate in occluding details of the epididymis is operative, according to the method first advocated by Edward Martin and perfected by Dr. Hagner. It has given many brilliant results and many failures. It should be advocated in suitable cases. It can do no harm. At times nature may relieve an obstruction, but this possibility cannot be taken into consideration. The rational treatment of oligospermia requires a knowledge of the cause or causes and rests upon our ability to correct the same. Never tell a patient suffering with oligospermia that he is responsible for the sterile marriage but rather treat him with the idea of increasing his chances of procreation.

DR. HAGNER (in closing): I congratulate Dr. MacKinney on the careful work that he has done, which is a valuable contribution. It follows well the proportions that I quoted. He spoke of the length of time that the sperm cell can live. I do not know just how long it can continue motility, but about a year ago we had an experience that astonished me. A patient brought in a specimen of semen in a condom in a little bottle with warm water, the condom being immersed in the warm water. That was on a Saturday morning. That specimen was not examined until Monday and at that time there were millions of actively motile spermatozoa; this was more than 48 hours after it was collected.

In the cured cases there is never any difficulty in finding spermatozoa; you do not find one or two, you find millions of them. They look as if the patients had never had any pathologic condition. We have been prevailed upon to operate in a number of cases in which there were only a few spermatozoa, or they were not motile. We have never obtained any results in such cases. Nearly every one of our cases in which we have obtained brilliant results have been patients who have had bilateral epididymitis. We never promise these patients anything. We tell them that we are not going to make them more sterile than they already are and it is the only thing that can give them any chance. If they are willing to take that chance, we are willing to operate on them and give them a chance for recovery.

BILIARY TRACT DISEASE*

End Results of Operations

I. S. RAVDIN, M.D., PHILADELPHIA

It is only by careful follow-up after operation that we can properly evaluate the results of surgical procedures. The changes which have occurred in surgical practice are largely the result of the observation that a given method has not been followed by the results which we have a right to expect. It is with the hope that the presentation of the end-results of a group of carefully studied patients may shed some light on what we may properly expect from our present methods, that this study was made on 113

consecutive patients operated on for various lesions of the biliary tract.

THE MATERIAL

Of the 113 patients, 32 were males and 81 were females, a ratio of 1 to 2.5. Of the males 50 per cent were between the ages of 40 and 50. Of the females only 27.1 per cent were in the fifth decade; 19.7 per cent were in the third decade; and a similar number in the seventh decade. Sixty-three per cent of the females came to operation after the major childbearing period (Table I).

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

TABLE I.—*Age Incidence*

Age	Male	Female	Total
20 30	2	14	16
30 40	6	16	22
40 50	16	22	38
50 60	6	16	22
60 70	2	12	14
70 80	..	1	1

TYPES OF DISEASE

Of the 113 patients 95 had calculous disease of the biliary tract. Fourteen of these patients had one or more stones in the common duct, which were removed at operation. Of the 14 common duct stone cases, 8 were jaundiced at the time of operation. One patient had gallstones associated with a suppurative cholangitis without stones in the common duct, and 2 of the 113 patients had carcinoma of the head of the pancreas. Sixteen of the patients had noncalculous gallbladder disease.

It is interesting that slightly more than 6.0 per cent of the calculous cases had stones in the common duct without a history of previous jaundice.

TABLE II.—*Types of Disease and Operation*

	Cholecystectomy	Cholecystostomy	Drainage of Common Duct	Internal Drainage	Total
Chronic cholecystitis with cholelithiasis	40	4	..	..	44
Chronic cholecystitis with cholelithiasis and stones in the common duct	7	4	14	..	14
Chronic cholecystitis without stones	16	..	..	..	16
Acute cholecystitis with cholelithiasis	11	25	..	..	36
Acute cholecystitis with suppurative cholangitis ...	..	1	..	..	1
Carcinoma of the pancreas	..	..	..	2	2

Of the 111 patients having no evidence of malignancy 36 had an acute gallbladder infection, in 74 the disease was chronic and in one there was a widespread cholangitis. Three of the acute cases had a perforation of the gallbladder.

We were particularly interested in 2 types of associated disease in these patients, diabetes and myocarditis. Six of the calculous cases had diabetes mellitus, and 13 had moderate to severe myocarditis.

OPERATION

I shall not discuss the preoperative care or the postoperative treatment of these patients. The selection of the anesthetic and the type of operation, however, properly belong in this paper.

The selection of the anesthetic has always been a problem in many of these patients. The obese, short patient with a short broad thorax

presents a difficult anesthetic problem. When one adds to the anatomic make-up, the frequently associated circulatory disease, the temporary tamponade of the diaphragm and splinting of the abdominal muscles with subsequent deficient pulmonary ventilation after operation the problem becomes even more acute.

In this series nitrous oxide and oxygen were used 31 times; ether, 42; and spinal and local anesthesia, 22 and 18 times, respectively. As our experience has increased we have become more confident of the use of spinal anesthesia in these patients. This is especially true of the difficult common duct cases. The right rectus incision was used 11 times and the transverse incision 102 times.

There were 4 major pulmonary complications in the entire series—3 instances of pneumonia and one of atelectasis. While anesthesia may not be a major factor in the production of postoperative pulmonary complications, we are convinced that Jones was correct when he stated that the transverse incision resulted in fewer complications. None of the patients who developed a pulmonary complication died.

In 74 of the patients the gallbladder was removed, and in 34 it was merely drained. In 3 instances the common duct only was drained, and in 2 the gallbladder was anastomosed to the stomach (Table II).

Though not agreeing with Judd that the acutely inflamed gallbladder should always be removed, cholecystectomy can frequently be done in early cases of cystic duct obstruction with a superimposed acute infection. To suggest that it be done routinely in acute suppurative infection of the gallbladder is to court disaster. Much as we should like to do it, the acutely inflamed gallbladder cannot always be treated as one would treat the acutely inflamed appendix.

END RESULTS

Of the 111 patients in whom no malignancy was found at operation, 103 have been followed for from 6 months to 3 years after operation.

One of the patients upon whom was performed a cholecystectomy for stones became intensely jaundiced 6 weeks after operation and died without returning for further treatment. The patient with suppurative cholangitis died on the third day after operation. The two patients with carcinoma of the head of the pancreas were dead within 7 months. Six patients were lost track of. The end results are, therefore, based on 103 patients.

failure anatomically to close the lateral abdominal wall, since in no instance did we observe a hernia through the rectus muscle. If properly sutured the incidence of hernia after cholecystectomy through a transverse incision should be low.

RELIEF OF SYMPTOMS

I have divided the symptomatic end result into four groups: (1) Poor; (2) fair; (3)

TABLE III.—*End Results 6 Months to 3 Years After Operation*

	Total cases	1	2	3	4	No report
Chronic cholecystitis with cholelithiasis	44*	..	..	..	..	..
Cholecystectomy	39	1	3	3	30	2
Cholecystostomy	4	0	1	1	2	0
Chronic cholecystitis with cholelithiasis and common duct stone	14	..	..	..	..	..
Cholecystectomy and common duct drainage	7	1	0	0	5	1
Cholecystostomy and common duct drainage	4	0	0	1	3	0
Common duct drainage	3	1	0	0	2	0
Chronic cholecystitis	16	..	..	..	..	..
Cholecystectomy	16	3	3	2	7	1
Acute cholecystitis and cholelithiasis	36	..	..	..	..	..
Cholecystectomy	11	0	1	0	10	0
Cholecystostomy	25	5	4	2	12	2
Cholelithiasis with suppurative cholangitis	1†	..	..	..	..	..
Carcinoma of the pancreas	2‡	..	..	..	..	..

* One patient died 6 weeks after discharge from the hospital.

† Died 3 days after operation.

‡ Both dead within 7 months.

HERNIA

Hernia occurred in 4 instances after cholecystostomy. In a single instance hernia occurred after a cholecystectomy. All these followed the use of the transverse incision. This incision has several anatomic advantages. It provides access to a wide area of the liver edge. It is not necessary to sacrifice more than one intercostal nerve supplying the rectus muscle and because of the peculiarity of the anastomosis of the nerve supply to the rectus the severance of this nerve does not jeopardize the motor supply to the rectus.

The access to the common duct is superb. It can be approached from the right as the closest structure in the right free border of the gastrophatic omentum. It provides an excellent route for the simultaneous exposure of the appendix, and permits the surgeon who drains the posterior pouch after biliary tract operations to bring drainage out through the lateral abdominal wall.

The herniæ which occurred in this series may be accounted for by two facts. First, in certain of the cholecystostomies satisfactory closure was not possible. Second, it is important to close the lateral abdominal wall by tier suture, being sure to close the internal and external oblique carefully. Certain of the herniæ were due to the

good; and (4) excellent. Group 1 contains those patients entirely unrelieved of their symptoms; in group 4 are those entirely relieved of their complaints. The remainder are placed in groups 2 and 3 depending on the degree of relief which the operation afforded.

In Table III are tabulated the end results of these patients. Fifteen of the 16 noncalculous gallbladder cases were followed up. Sixty per cent of these obtained a satisfactory result. These data are in close agreement with those of Muller, Lahey, and many others. They illustrate the fact that even in carefully selected cases the end result after cholecystectomy for noncalculous gallbladder disease is not good, at least it is not as good as we should expect if the gallbladder lesion were the sole source of the patient's symptoms.

Of the acute cases, cholecystectomy gave satisfactory end results in 90 per cent of the patients. In contrast to these results are those obtained after cholecystostomy for acute gallbladder disease. Of the 25 patients whose gallbladders were merely drained 23 were followed up. Fourteen (61.0 per cent) had a satisfactory end result and in 9 (39 per cent) the end result was unsatisfactory. Seven of the 9 patients with an unsatisfactory result were subsequently operated on by us for removal of the gallbladder.

The end results of the chronic calculous cases are interesting. Forty of the patients had a simple cholecystectomy. Two were not followed and one died 6 weeks after operation. Of the 37 patients who were followed up for more than 6 months 30 were classed in group 4, and 3 in group 3. Thus 33 (89 per cent) of the cholecystectomized patients with chronic gallstone disease obtained satisfactory results, while in 4 (11 per cent) the results were not satisfactory either to us or to the patient.

In 4 instances in chronic stone cases, cholecystostomy was done. Three patients obtained a satisfactory result and in one the result was poor. The group is too small for further analysis.

The common duct cases are most interesting. In 4 the common duct was drained together with a cholecystostomy; in 7 the common duct was drained together with cholecystectomy; and in 3 the common duct alone was drained. Thirteen of the 14 patients were followed. In eleven (85 per cent) a satisfactory result was obtained; in two (15 per cent) recurrent jaundice occurred requiring a secondary operation. The results in this group were, however, highly satisfactory to us as they should be if a carefully planned operation can be carried out.

MYOCARDIAL DAMAGE

It is well known by surgeons that one of the major causes of death after operations on the biliary tract is myocardial failure. Riesman and Babcock independently suggested that the streptococcus, which is most frequently the infecting organism in biliary tract infection, also caused myocardial degeneration. More recently Schwartz and Herman have suggested that the myocardial change was the result of a fatty infiltration of the myocardium and that this was merely a part of the general increase in the adiposity of many of the patients who have gallbladder disease. Whether one or both of these concepts are correct cannot at this time be definitely stated.

For sometime now I have had the opinion that many of the patients who present evidences of serious cardiac disease at the time of operation, probably had some initial cardiac lesion prior to the biliary tract disease. Though the gallbladder lesion accentuated and aggravated the existing disease it may in many instances not have been the sole etiologic factor.

In the group of patients here presented, 13 had definite evidences of moderate or severe myocardial change. These ranged from early myocardial damage to severe degeneration with all

the signs of a failing heart. Some of the patients had been confined to bed for some time because of the failing myocardium; one for as long as 7 months.

Many of these patients had the benefit not only of electrocardiographic study, including orthodiagrams, but they were carefully examined by an internist interested in cardiac lesions. Of particular interest to us as clinicians is: What are the hazards of operation on these patients and what may patients with biliary tract disease and myocardial damage expect from operation?

None of the patients in this group died within the first 6 months after operation. Two of the patients who were operated on during severe congestive heart failure are living and well for from 1 to 3 years after operation. In every instance there has been considerable improvement in the patient's cardiac symptoms, and while the end results in this respect are not as good as those observed after thyroidectomy in the thyrocardiac they definitely approach these.

It can be said that with proper safeguards thrown around the patient prior to, during, and after operation the risk even in grave myocardial damage need not be great. Lahey has called attention to the fact that the gravest myocardial damage is no contraindication to operation for thyrotoxicosis and this same statement can be said to apply to the patients with biliary tract disease.

The primary operation may consist only of a cholecystostomy under local anesthesia, but in numerous instances sufficient improvement occurs in the patient's condition later to do cholecystectomy under general or spinal anesthesia.

In this group cholecystostomy was performed 7 times and cholecystectomy 6 times. The marked improvement which occurred in several of the patients whose gallbladders were merely drained leads us to question whether other factors than infection and mere obesity accentuate the cardiac symptoms.

DIABETES MELLITUS

Diabetes mellitus was encountered 6 times in the 95 instances in which stones were present. This association of diabetes (6.5 per cent) in gallstone disease is more than casual, and we must in certain instances agree that at least there is an etiologic relationship between the two diseases.

I know of no group of early cases of cholecystitis in which blood sugar studies have been made. In experimental cholecystitis, however, hyperglycemia is a constant finding. If this occurs in the human there may result a strain on the

islets of Langerhans. Whether diabetes can develop from such overstrain in itself cannot be answered at this time.

Joslin has stressed the association of obesity and diabetes. Here again we find a close relationship to cholecystic disease. Furthermore, the combination of cholecystitis and hepatitis results in a liver whose ability to store glycogen is below normal. The high glucose tolerance curves seen in the patients with severe hepatic disease are not unlike those of the diabetic.

The higher incidence of diabetes in this group of patients than is found in the normal population would suggest that the patient with long standing cholecystic disease is more prone to diabetes than is the normal individual. Certainly in those patients who only to a slight degree tend to become diabetics, cholecystic disease will tend to accentuate the condition.

In 2 of the 6 patients cholecystectomy resulted in a remarkable improvement in the sugar tolerance and in 2 the improvement was fair. In 2 no apparent improvement was observed other than that which will occur in the diabetic in whom an acute suppurative infection is relieved.

CONTINUATION OF DYSPEPTIC SYMPTOMS

Although the character and thoroughness of the operation play an important part in the end result of any biliary tract operation there remains the small group of patients in whom operation was rightly indicated, who continue to complain of dyspeptic symptoms. If we exclude those patients in whom as a result of some post-operative sequelæ certain symptoms continue, there still remains a group in which after a technically perfect operation, which was fully indicated, the full quota of expected relief failed to materialize.

Deaver and others have supposed that in many of these patients a chronic pancreatitis accounted for many of the residual symptoms.

The failure to relieve fully certain of these patients can be explained on the changes in function of the gallbladder and the liver in long-standing biliary tract disease. The bile salts which play such an important rôle in the activation of the lipases, and in the digestion and transport of fats, are definitely reduced in concentration in hepatitis. While the normal gallbladder concentrates the bile salts of liver bile, the diseased gallbladder absorbs them. Any condition which interferes with the normal enterohepatic circulation of certain of the bile constituents will result in an interference with the extrahepatic

functions of the bile and dyspeptic symptoms will become manifest.

Thus, if after long-standing cholecystic disease there results a permanently damaged liver it is highly possible that even cholecystectomy will not bring the full measure of expected relief from symptoms.

SUMMARY

1. An analysis of 113 biliary tract cases has been presented in which it was possible to follow 105 for periods of from 6 months to 3 years.
2. One patient with suppurative cholangitis died 3 days after operation.
3. One patient operated on for cholelithiasis died 6 weeks after discharge from the hospital, being jaundiced at the time of death.
4. The 2 patients with carcinoma of the pancreas were dead within 7 months.
5. Six patients could not be followed, leaving 103 upon whom these end results are based.
6. The end result of cholecystectomy for chronic cholecystitis with cholelithiasis was a complete relief from symptoms in 89 per cent of the followed patients.
7. The end result after operation for common duct stones was satisfactory in 85 per cent of the patients.
8. Cholecystectomy in acute gallbladder disease gave a more satisfactory end result (90 per cent) than cholecystostomy although this should not be interpreted as indicating that it is always wise to perform a cholecystectomy.
9. The mortality in patients which cholecystic disease and myocarditis need not be high and the end results are highly satisfactory.
10. The same may be said of diabetes.

4623 Larchwood Avenue.

ABSTRACT OF DISCUSSION

DAMON B. PFEIFFER (Philadelphia): In operation upon a diseased gallbladder, the results are frequently dramatic, the end results are excellent, and I deplore the tendency, which is growing, to delay these cases under medical treatment.

I would cite a case of cholecystitis discovered by my colleague in a boy age 9. He removed the gallbladder and the boy has made a good recovery. I have encountered many cases of this kind. Alvarez has made out a convincing case that the origins of cholecystitis in early years, although symptoms are very mild, have as a rule been overlooked.

MOSES BEHREND (Philadelphia): I was glad to hear Dr. Ravdin's remarks concerning diabetes and myocardial changes in gallbladder disease. I called attention to these facts some years ago and am glad to have his corroboration.

DENTAL CONDITIONS AND THE OTOLARYNGOLOGIST*

WILLIAM ERSNER, D.D.S., PHILADELPHIA

The dental surgeon in his operative field is always at the front door of the otolaryngologist. The dividing line between their respective operative scopes is as imaginary as the equator. By virtue of this adjacency of fields, the dental surgeon encroaches upon the throat, connects or pushes his way, quite accidentally, into the sinus, and radios reflexes by painful static messages to the ear.

The oral cavity, the teeth, gums, mucosa, tongue, floor of the mouth, and adjacent structures present many problems of interest to both professions. With this thought in mind, I hope to present some of the dental, oral, and oral-surgical conditions of interest and importance to the otolaryngologist.

It will be impossible to cover all the conditions that involve both fields. Some of the most important problems of interest are:

1. Importance of proper dental diagnosis.
2. Maintenance of oral hygiene.
3. Vincent's angina.
4. Elimination of sepsis.
5. Referred pain and neuralgia.
6. Serious sequela and infections of dental origin.
7. Dental conditions in relation to maxillary sinus.
8. Focal infection.
9. The problems of occlusion and prosthesis.

It is important to be methodic in order to render an opinion and a proper diagnosis.

The dental profession has always coöperated with the medical profession in advocating periodic health examinations. A periodic health examination as recommended by the medical profession cannot be complete without a careful survey of the oral cavity and its surrounding structures. The physician should take advantage of and use every means available to aid him in arriving at the proper diagnosis.

It has been said that the dentist sees cavities in the teeth and empty spaces as opportunities for crown and bridgework replacements and nothing else. "Snap examination," likewise, brings forth condemnation of diseased tonsils with advice for their immediate removal, while surrounding lesions and pathology are overlooked. The dental aspect is often utterly disregarded. As an illustration, consider the ordinary problem of gingivitis, usually caused by irritation of food remnants and calcareous deposits, which manifests some slight oozing of pus, or in the more common condition pyorrhea

with active pathologic lesions and free flow of pus. All will agree that the bathing of the freshly operated field following tonsillectomy, laryngectomy, *etc.*, with this bacterial flora is not a healthy condition.

From an economic standpoint many days of hospitalization could be avoided by proper prophylaxis and oral hygiene.

Some cases of pulmonary abscess now attributed directly to the tonsillectomy are actually caused by the inhalation of dislodged tartar, debris, and infected oral secretions. Total neglect of mouth hygiene has caused much grief because of serious sequela.

VINCENT'S ANGINA AND VINCENT'S INFECTION

I shall not delve into the story of Vincent's angina, but shall consider the acute form as characterized by ulceration of the superficial mucous membrane and sometimes of the deeper structures. It may thus involve the tonsils, faucial pillars, the palate, pharynx, lymphatics, and salivary glands. With such a picture, it belongs to the laryngologist. The dentist is concerned only if it spreads to the gums and dental structures, especially the third molar flap, where it most frequently originates. The streptococcus is often the primary factor with a Vincent's infection superimposed. We repeatedly observe in children, and occasionally in adults, that some forms of upper respiratory infections, primarily caused by streptococci, terminate in a typical Vincent's infection of the mouth. Many systemic diseases have their initial lesions in the oral cavity. I recall a case of pemphigus associated with Vincent's infection which led a group of men a merry chase until the lesions finally appeared on the elbows and knees making the diagnosis definite. Since Vincent's infection often follows in the path of systemic disease it would, therefore, not be amiss to make complete hematologic studies in order to eliminate anemia, leukemia, *etc.*

ELIMINATION OF SEPSIS

Septic diseases of the ear, nose, and throat are frequently associated with unclean oral cavities, particularly those in which the staphylococci, streptococci, and the pneumococci are the etiologic factors. The oral cavity is never free from microorganisms. It is reasonable to assume, therefore, that such a hotbed of infection will sooner or later infect the tonsils, the pharynx,

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Oct. 5, 1933.

eustachian tube, middle ear, larynx, trachea, and lungs either by continuity or contiguity. It is also common knowledge that it is dangerous to inflate the eustachian tubes in the presence of a septic oral cavity. Infection is an almost certain consequence. Is it then unreasonable to call into consultation your dental confrères to aid in the elimination of these virulent oral septic infections before treatment and operative procedures are instituted?

REFERRED PAIN—NEURALGIA

Otalgia as a result of dental disease is very common and is frequently caused by such painful conditions as acute pulpitis, putrescent pulp, pericemental irritation, caries under gingival margins, and secondary decay under fillings. All these may defy microscopic detection. These conditions can readily be brought to satisfactory termination by a correct diagnosis and proper treatment.

Impactions and benign growths, such as cysts and odontomas, often present perplexing symptoms, particularly if the roentgen ray has not been resorted to early in the course of treatment. On the other hand, a roentgenogram without a thorough clinical examination is often valueless. A peculiar coincidence is the finding of impactions, apical abscesses, caries, retained roots, pulp stones, and the like with a complete absence of symptoms referable to the teeth. Many symptoms of referred pains are produced by pressure upon the anterior palatine, posterior palatine, mental foramina, and the mandibular canal.

Many patients come to the otologist for treatment of a painful ear, though dental pathology is responsible for the condition. Conversely many patients come to the oral surgeon for the treatment of painful teeth, though actually the cause is acute tonsillitis, quinsy, fulminating otitis externa, otitis media, early laryngeal malignancies, sinusitis, or irritation of Meckel's ganglion.

Deafness caused by paralysis of the tensor tympani muscle may occur in cases of trigeminal neuralgia of toxic origin, the original cause being infected teeth.

SERIOUS SEQUELA AND INFECTIONS OF DENTAL ORIGIN

Pericoronal infections or inflamed, irritated, overhanging gum tissue, about the partially erupted, unerupted, or impacted lower third molars, are frequently the active cause of repeated quinsy. These peritonsillar abscesses occur as long as the third molar remains *in situ*. Occasionally the course of this infection is not so simple as it often terminates in an osteomyelitis of the mandible, submaxillary abscesses, Ludwig's angina, and septicemia.

Infections of dental origin, acute and chronic, have aroused the lively interest of physicians. Acute infections in and about the teeth with the serious sequelæ have been the active cause of death. In my experience there have been two cases of cavernous sinus thrombosis following the extraction of teeth, one following the extraction of an upper premolar tooth, the other the removal of a lower right third molar with a pericoronal infection.

Dr. L. Moizar, of Budapest, Hungary, in an article entitled, "Mortal Acute Dental Infection of Oral and Dental Origin," reports 24 cases with mortal issue. His findings are not from clinical treatment and observation alone, but from necropsy examinations as well.

DENTAL CONDITIONS IN RELATION TO THE MAXILLARY SINUS

The maxillary sinus is "no man's land." Here we have a common stamping ground, for many intimate contacts supplementing each other's work.

Maxillary sinus infection of dental origin is one of our problems. Apparently the question of dental incidents is still a debatable one. Various authorities venture to say that it is from 5 to 75 per cent; our experience has found it to be about 25 per cent.

Though the roots of the upper molars and bicuspid most frequently project through the bony floor of the antrum and come into contact with the lining mucosa, it is not uncommon for the cuspid and incisors to involve the sinus. In many cases the bone separating the tooth from the antrum is so thin that it is easily eroded, or there may be a low dipping sinus between roots. The tooth with the apical abscess involving the sinus should be removed. Drainage and root canal treatment is of little value. The tooth with the diffuse area of bone destruction at the apex should be removed. The abscessed tooth under the sinus should be removed even though it does not communicate with the sinus. The devitalized tooth negative upon roentgen ray should be eliminated, since it may be a locus for bacteria, thus producing a focus of infection. Another class of teeth that should be removed are those affected with periodontal disease (pyorrhea). Though these teeth may be vital and present no pathology at the apices, there may be subgingival irritation with periodontal thickening and pus exudation, which will also find its way to the sinus.

The onset of maxillary sinusitis is often vague. Sometimes the sole symptoms present may be referable to the teeth and unless a careful search is made many innocent teeth may be

extracted. On the other hand, a maxillary sinus of dental origin will not clear up, irrespective of the number of punctures and irrigations, if it is caused by spontaneous rupture of an abscessed tooth into the space of least resistance, that is, the sinus.

In the extraction of teeth adjacent to the sinus careful surgical removal or the open flap method will avoid communicating with and infecting an otherwise healthy antrum.

If, in extracting a tooth, there is an opening into the antrum, without communication of the membrane, do not touch it but merely pursue precautionary methods to prevent the ingress of foreign materials. If there is an established communication with a rupture of the membrane, however, care should be taken to prevent blood from entering the sinus, and the oral opening should be closed. Here the rhinologist is called upon to irrigate the sinus through the nose by means of inferior meatal puncture or through the natural ostium.

The closure of the opening is effected by the use of a flap, the tissue being taken from the palate.

FOCAL INFECTION

There is, perhaps, no treatment which places greater responsibility upon us than that of properly eliminating focal infection. Various authorities have placed the incidence of focal infection due to teeth, tonsils, and sinuses at from 60 to 80 per cent. Clinical experience and results might tempt me to preach radicalism, but I am opposed to the wholesale removal of teeth. The results of exodontia, however, have often been gratifying, resulting in the elimination of black spots in the eyes, iritis, supra-orbital pains, neuralgia, and headaches, improvement of hearing, elimination of dizziness, sinus improvement, clearing of acute tonsillar inflammations and recurrent peritonsillar abscesses.

Furthermore, extraction of teeth is not a cure-all. Many symptoms and complaints have not responded to the removal of this foci. This must be explained by resorting to the many theories propounded by numerous investigators on focal infection.

PROBLEM OF OCCLUSION AND PROSTHESIS

The basic principle of this problem is the maintenance of proper occlusion while the natural teeth are *in situ*. In false dentures there must be a correct reestablishment of the occlusion as to the occlusal height and bite. If teeth are removed there is a change in the temporal mandibular articulation. In view of this there must be a reestablishment of the position of this

joint with no retrusion or protrusion. Definite connections have been established between these factors and the loss of hearing.

Perfect hearing requires proper functioning of the eustachian tubes with perfect coördination of the soft palate, levator palati, tensor palati, and salpingopharyngeus muscles. Improper construction of dentures interferes with the functioning of these muscles, and causes disturbances in hearing.

It has been demonstrated that abnormal occlusion will be a primary factor in alveolar atrophy and gingival tissue pathologic changes. Likewise, it is thought that abnormal occlusion with the severe occlusal masticatory stress, will cause trauma and tissue changes in the ear and that the abnormal pressure and stress during the mandibular articular joint excursion brings about blood stasis in the vessels and a crushing of the delicate nerve cells.

It is patent that conditions of the teeth have an important bearing on diseases of the ear, nose, and throat. Your specialty is often obliged to see that the teeth are thoroughly investigated and properly treated. To obtain the best results for the benefit of the patient, the dental surgeon and the otolaryngologist must not work at cross purposes. Each must be cognizant and understanding of, and charitable toward, the point of view of the other.

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ABSTRACT OF DISCUSSION

WALTER CARISS (Philadelphia): Dr. George Coates, in the JOURNAL (March, 1932) said, "Each mucous-lined cavity, bony and otherwise, is a potential focus, either directly or indirectly, and in searching for such a focus patience, skill and mechanical and laboratory aids are essential. No portion must be overlooked."

A point stressed by Dr. Ersner is a source of continued neglect by most of us, namely, oral prophylaxis preceding operations on the throat and upper respiratory tract. It is hardly feasible to have oral prophylaxis in all cases, but in the more serious operations in these areas this should be done.

The commonest field of contact between the dentist and the otolaryngologist is in cases involving the maxillary sinus.

The incidence of antral infections from dental sources is a matter of wide divergence of statistics. The rhinologist will undoubtedly report a much smaller incidence from this source than will the dentist, because of the character of cases with which he comes in contact. The percentage of antral involvement from dental infection is extremely small.

Whatever the causative factor, once a maxillary sinus infection is present, the treatment should be by the nasal route. Areas of apical infection and maxillary necrosis must be removed, but continued treatment of the infected antrum should not be through these areas. An infected antrum cannot be properly treated through an alveolar opening alone. In all stubborn antral infections the adjacent teeth should be investigated, as

the possibility of dental causation should always be considered. The antral-oral communication should be closed as quickly as possible as the organisms normally present in the mouth become pathologic when introduced into the antrum. If a sinus from the infected antrum to the mouth exists, this should be closed until the antral infection is cleared up.

If operative procedure is indicated, the Caldwell-Luc is the operation of choice as a general rule, but with conservatism as to destruction of the sinus membrane. A healthy lining membrane is the best protection against infection and the greatest aid in recovery.

Recurrent quinsy is another condition in which the laryngologist is prone to neglect consideration of the teeth as the infective focus and to blame the tonsils alone. The percentage is small, but in numerous cases diseased conditions of the posterior molar region were the responsible factors.

In no other infection in these areas is closer coöperation between the dental surgeon and the laryngologist necessary than in Vincent's infection of the tonsil and pharynx. I have never seen a case of tonsillar or pharyngeal infection with Vincent's organisms which did not have an associated infection of the gingival areas, if properly and carefully examined.

Our meager knowledge of the etiologic factor in production of agranulocytic angina makes it imperative that we consider every possible source. Among the cases of this disease with which I have come in contact, at least three, after careful investigation of the history, have undoubtedly followed extraction of diseased teeth. The period of development of the agranulocytosis followed within a few days the extraction. This is another argument for careful dental prophylaxis in connection with health studies.

There is wide divergence of opinion as to the extent to which abnormalities of the mandibular articulation are involved as factors in hearing defects, tinnitus and vertigo.

Little investigation in this condition has been done by otologists, although considerable study and numerous reports have been made by the dental profession which indicate that abnormalities of this region play a prominent part in many of the previously mentioned defects.

Dr. David Goodfriend, of Philadelphia, has done intensive and excellent investigative studies in this line and has recently published several articles. His series of 51 treated cases show some excellent results in improvement of ear disturbances. The number of reported studies is not sufficient to be conclusive, but considering how little otologists help the average case of this type any procedure which will be of any assistance should be studied with care and with a receptive mind.

HENRY S. WEIDER (Philadelphia): Otolaryngologists are called upon by the general practitioner frequently to find foci of infection. Also if the dentist cannot find out what the trouble is he calls upon the otolaryngologist to see if it is sinuses, tonsils, or something of that kind.

No otolaryngologic study is complete without transillumination of the teeth. No patient comes to my office who does not have his teeth transilluminated at the first visit; it is included as an important part of the report, just the same as are roentgen-ray studies of the sinuses and tonsils. It is surprising, after you become accustomed to the use of the transilluminator, the nasal conditions found which refer to the teeth. Transillumination of the frontal and maxillary sinuses has failed me less often than the roentgen ray.

One feature in the use of the transilluminator on which all agree: In persons with artificial dentures who develop a thick, leathery palate, one is often misled to believe there is some maxillary sinus condition, when it is nothing but the thick, congested mucous membrane that does not transmit the proper amount of light, especially if you use the method going down into the mouth.

I have seen cases of rhinitis, more or less allergic in type, which upon transillumination of the teeth abscesses were found and removal of the abscess causes the condition to clear up in a week or two, and it will not clear up under any other form of treatment.

ROBERT A. RIDPATH (Philadelphia): The question that has been rather paramount in former studies of infections of the maxillary sinus, as it is at the present, is the percentage of maxillary involvement which is of dental origin. When we started teaching the anatomy of the sinuses and the diseases of the sinuses, at least 70 per cent of maxillary involvement was attributed to dental origin. This was reduced within a few years to 50 per cent, then to 40 per cent, then to 20 per cent, and now it is a question whether 20 per cent is the proper figure. Does the carious tooth infect the sinus, or does the infected sinus cause the carious tooth? There is a difference of opinion regarding this, but nevertheless there is unquestionably a certain percentage of teeth which are infected from the sinuses, not the sinuses from the teeth.

The other point I should like Dr. Ersner to go into definitely is the treatment of Vincent's angina, which the dentist unquestionably sees much oftener than the laryngologist or rhinologist.

DOUGLAS MACFARLAN (Philadelphia): Dr. Ersner mentioned, and Dr. Cariss carried out in his discussion, the question of Vincent's cases that are intractable without dental care. Vincent's angina of the mouth and tonsils often lights up after a cleansing of the teeth.

I would mention a pseudo-quinsy that certainly can be enormously improved by dental care. There is a violent peritonsillar swelling that does not come to pus. If you culture these cases on Sabourraud's media you will often find a fungoid infection, a mold or monilia. The tongue is furled and there is a lot of infection around the dental margins. This pseudo-quinsy will recur year after year unless the tonsils are removed, and tongue, and teeth kept clean.

An important subject Dr. Ersner has brought up is deafness in relation to dental conditions. There is no doubt that nasal obstruction is a frequent cause of deafness. A high dental arch or a contracted one usually accompanies septal deflection. It is a question which is cause and which is effect. Adenoid tissue follows the postnasal catarrh resulting from nasal obstruction. The eustachian tubes become stopped and deafness comes on. The adenoids are not primary. Sinus disease as well as nasal obstruction can cause them.

It seems rather remote to ascribe deafness to any trouble with the mandibular articulation. Because of past suggestions along this line I have been looking for it, and have not seen it either in my private practice or in two deafness-prevention clinics. Anatomically, the joint is not intimately associated with the hearing mechanism, and trouble with this articulation is rare.

DAVID J. GOODFRIEND (Philadelphia): It was kind of Dr. Cariss to refer to the work which I have done in investigating the rôle of diseases of the mandibular articulation in the etiology of the diseases of the ear.

This work was begun 8 years ago and has been conducted at the University of Pennsylvania for the past 3 years. It consists of the study of the reflex symptoms associated with abnormalities of the masticating mechanism. These are disturbances of the ear, speech, and personality.

The ear symptoms include deafness, tinnitus aurium, and vertigo, and are associated with the loss of teeth, dental malocclusion, and improperly constructed dental replacements. Kirk, Piersol, and others have observed these associated symptoms. Monson reported them in 1917 and Wright in 1918. Their thought had been that the ear symptoms were caused by pressure of the displaced condyle upon the auditory canal and tympanic plate of the temporal bone. This is an etiologic factor, but its comparative infrequent occurrence fails to explain the high correlations which are found between dental and ear disturbances. My findings have shown that these dental abnormalities cause degenerative processes in the mandibular articulations. These include tissue changes and absorption of the joint cartilages and disk, and the periarticular bone.

The deepened fossa, the displaced condyle, and the degenerative processes may contribute to the etiology of deafness, *etc.*, either directly; or by reflex neurosis of the auriculotemporal nerve, other branches of which supply the auditory canal and the tympanic membrane.

My reports to the present time have been made dentally. I have treated many cases but have nothing to report to this group yet.

DR. ERSNER (in closing): I brought the subject of occlusion and the prosthesis problem to you because this work has been going on for some time and it has taken a while for the dental profession to realize its value. It has begun to seep through at the present time, with the result that it has developed men throughout the country who are more or less entering that particular specialty. Dr. Goodfriend has done a monumental piece of work, the dentists are proud of it. His article is appearing at the present time in one of the journals, and I wished to call attention to the fact that the conditions in the ear, especially impaired hearing, may be involved in the presence of malocclusion and disturbances in the mandibular joint. If a patient calls, who is gradually becoming deaf, or if upon examining the mouth you notice he is wearing dentures with the bite probably wrong, refer that patient to the dentist, especially the man who is specializing in that line. In that way you will obtain results. If teeth are lost on one side, for some time, and no replacement made, occlusal stress has been directed continuously to the opposite side, the hearing will be affected. It has also been established in some cases of progressive deafness in which the condition was thought to be due to occlusion, that if new plates were made intermittently over a period of years, the bite raised each time, there was finally a reestablishment and improvement of at least some of the hearing.

We must remember the general systemic condition, as brought forth by Dr. Cariss in agranulocytic angina cases. To feel that there is some connection between the fact of this disease and dental disease would be more or less misleading, especially in view of the fact that Dr. Cariss saw only 3 cases following dental extraction. I have seen probably 5 or 6 in the past 3 years, and one of them originally followed a hemorhoidectomy. That was the case of a dentist. The leukocyte count went down to 300. There was gradual improvement after the patient was hospitalized 6 months. He returned to work, and after a year or so

developed toothache. He was told, incidentally, about the dental aspect and warned not to have a tooth extracted unless he was prepared. He was prepared by a physician. Very foolishly during the night he attempted to remove his own tooth, but did not succeed. The following day, without informing his professional friend of his previous hospital experience, the aching teeth were removed. Two bicusps were removed, with the usual sequence—a blood dyscrasia set up with bone involvement and the formation of an involucrum and osteomyelitis, and he died.

Dr. Cariss stated that if treatment of the sinuses is in progress and there is an opening into the mouth, he does not like to have the oral opening closed immediately. It has been our experience that the sooner oral closure is made the better for the patient, provided the cooperation of the rhinologist is secured. This is not in a spirit of egotism, but the fact that we have not had a single permanent fistula into the maxillary sinus is due to close cooperation between myself and an associated rhinologist. The reason we have so many cases of maxillary sinusitis caused by dental conditions may be because I am in a field in which I am continually having the accidents following extractions referred to me.

If the incidence here reported was from the standpoint of the actual anatomic conditions up to the point at which the patient will go to the dentist for dental treatment, Dr. Ridpath's thought is correct. The incidence of actual dental infection would be probably between 5 and 10 per cent, and the other 15 per cent is due to accidents which occur during extraction of teeth, the greenstick fracture of alveolar and buccal plate and the floor of the sinus, or fracture of the entire buccal plate including second and third molars, and the forcing of the roots into the sinuses, especially bifurcated roots, or the incarceration or migration of complete teeth—molars, or bicusps. I recall an instance in which an impacted third molar around which the operator had placed an elevator, the tooth slipped into the sinus and went through the drumlike membrane, and having overlooked the septa himself he searched in the posterior part of the sinus for a half hour before he finally decided there was something else wrong. It turned out to be a double septum.

In answer to Dr. Ridpath's question on how to treat Vincent's infection: Vincent's infection will respond to at least 100 different types of treatment, too numerous to mention. When the patient first presents himself, careful examination is made. An endeavor is made to determine the initial lesion and area of infection. A full set of roentgen-ray films are made. This will elicit the depth of the pockets and alveolar destruction. Then follow with the least irritating mouth wash, such as sodium perborate, one-half teaspoon to a glass of hot water, or blue iodine mouth wash, two table-spoons to a half glass of warm water. With a ball of cotton grasped with a hemostat forceps the necrotic tissue is wiped gently from lesions exposing bleeding surfaces. I do not use the aromatized sodium perborate, as I find the peppermint too irritating to the tissues, and the patients complain. Then block off the areas to be treated with cotton rolls, to prevent the bathing of the area with saliva. A paste of the plain sodium perborate powder is then placed over the areas to be treated and allowed to remain for several minutes. This is continued until all the lesions are treated in the same manner. The other treatment followed is by rubbing off the necrotic tissue with cotton soaked in colloidal iodine (Bico. 1:500), blocking off with cotton rolls areas to be treated. Tampons of wet dressings

are placed over the lesions for several minutes. Colloidal iodine is actual iodine, a powerful germicide, bactericidal and a deodorant. It has all the advantages of iodine, but none of the disadvantages. It will not burn for it contains no alcohol.

The patient is then instructed to use the blue iodine mouth wash, 2 tablespoons to $\frac{1}{2}$ glass warm water every 2 hours as well as the use of wet dressings of cotton tampons dipped in 1:500 colloidal iodine (Bico.), about 3 times a day. Patient is further instructed to

refrain from irritating condiments, use of tobacco and red meats. A rich diet of fresh vegetables and large quantities of orange or tomato juice are advised. About the third or fourth day, mouth hygiene prophylaxis is further resorted to and an attempt made to remove tartar and debris under the gingival margins with scalers. Care must be taken to prevent lacerations of the gum tissues. Extraction of infected teeth and retained broken down teeth is instituted when the smear is returned negative.

PURPURA HEMORRHAGICA*†‡

Intravenous Gold as an Etiologic Factor

HAROLD W. JONES, M.D., LEANDRO M. TOCANTINS, M.D.,
AND EDWARD F. CORSON, M.D., PHILADELPHIA

We have had the opportunity at Jefferson Hospital to study a large group of patients with purpura hemorrhagica. From these studies we conclude that all types of purpura are fundamentally the same, varying chiefly in the degree of symptomatic expression. The actual cause of the disease is not known. We set forth the following pathologic factors as being essential for the development of the condition:

1. Platelet deficiency.
2. Altered capillary permeability or fragility.
3. Mucous membrane disease.

Contributing factors are:

1. Infection—as erysipelas, measles, tuberculosis, tonsillitis.
2. Glandular dysfunction (ovary and pituitary).
3. Toxic effects—drugs, chronic nephritis, etc.
4. Vitamin deficiency.
5. Allergy.
6. Heredity.

PURPURA-PRODUCING METHODS

Purpura has been produced by drugs, such as benzol, arsenic, and thorium; by diphtheria toxin, tuberculin, pneumococcus extract, and streptococcus. Blood defibrination has also been used. The use of antihemorrhagic marrow and antiplatelet serum has resulted in similar results.

EXPERIMENTAL PURPURA

Our experimental work has been with antiplatelet serum and we have been able to produce purpura in dogs, with all its varied symptomatology.

SKIN PHENOMENA

The changes in the skin observed during our experimental work is of special interest to dermatologists. After successive injections of anti-

platelet serum the animal develops a certain refractoriness to purpura, and no actual hemorrhages are seen about the traumatized area. The skin, however, is erythematous, a wheal is raised and dermatographia is present when the skin is stroked with the finger nail. In the hemorrhagic stage a wheal can not be produced, but when the skin is scratched the area is covered with petechiae. The erythema following the handling of the skin may last as long as 10 or 15 minutes. During the acute hemorrhagic stage the abdominal skin loses its tonus and is very loose. On pinching, it remains wrinkled for a much longer time than before the purpura was produced. When bleeding time determinations are made, the lips of the skin wound gape and blood dissects under them, forming circular hematomata. In the reactive stage there is definite blanching of the conjunctival mucous membrane, and it is difficult to make a wound bleed by the usual methods.

GOLD INJECTIONS PRODUCING DISEASE

It may be of interest to relate an instance of human purpura hemorrhagica, with the contributory cause the injection of gold compounds. It is well known that heavy metals used therapeutically may have a depressive action on the bone marrow, leading to a variety of blood conditions. There are in the literature several reports of purpura hemorrhagica following the use of gold either as a treatment for lupus erythematosus or, as is the custom on the continent, in the treatment of tuberculosis. Fatalities have been noted to be preceded by generalized hemorrhagic manifestations. In many instances these manifestations appear as the patient has started the second series of treatments with gold.

Koch mentions gold among a number of other substances which act as capillary poisons. Intravenous injections of a gold salt in a lethal dose in mammals have been followed by wide-

* Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

† From the Departments of Medicine and Dermatology, Jefferson Medical College.

‡ J. Ewing Mears Research Fund.

spread dilatation of the capillaries and numerous microscopic bleedings. One of our most severe cases of purpura was probably precipitated by the use of a gold compound in the treatment of lupus erythematosus. A brief review of this case follows.

REPORT OF CASE

Female, age 37, white, single, was first seen by a dermatologist as private patient, November, 1930. She had an enlarged thyroid gland with an eruption of lupus erythematosus. The teeth were poor and some were abscessed. The eruption appeared 2 months after a flare-up of an old abscessed tooth. She had had this eruption for 6 years before coming under observation. The tonsils had been partially removed 3 years later, and subsequent to the tonsillectomy the eruption began to spread rapidly across the upper portions of the cheeks.

On physical examination, November, 1930, there was found a thyroid enlargement and typical facial eruption of lupus erythematosus, and infected tonsils with moderate cervical adenitis. Roentgenograms showed 6 dead teeth, with apical abscesses. Four were extracted, with no unusual bleeding from the incisions.

Intravenous gold therapy was begun, and the patient received 6 weekly injections of triphal—3, of $2\frac{1}{2}$ centigrams; 2, of 5 centigrams; and 1, of $7\frac{1}{2}$ centigrams. She was not seen again until after the last injection, when she complained of a nosebleed, and exhibited fine purpuric streaks of macules on her thighs. The gum above one of the teeth showed hemorrhagic infiltration. A few days later a tonsillectomy was performed and 2 more teeth extracted. No unusual bleeding followed.

She was seen a month later and stated there had been continuous oozing from the 2 sockets for 2 weeks following the extraction, that her menstruation 2 weeks previously had been very profuse, and many petechiae were present. The lupus eruption showed very little change. She was given 0.1 gram of gold sodium thio-sulphate intravenously. Three days later she reported that there had been severe nosebleeds for 2 days and the body was covered with petechiae, especially in the lower extremities. All the mucous membranes were studded with dark blood blisters, and the tooth sockets were bleeding actively. The lupus eruption had definitely decreased. Upon the appearance of hematuria she was admitted to Jefferson Hospital, April 1, 1931.

The blood findings were as follows: Hemoglobin, 65 per cent; red blood cells, 3,330,000; white blood cells, 6300; platelets, 102,000. There was marked change in the size, shape, and stain of the red blood cells. The differential count was normal. The capillary clotting time was 3 minutes, and bleeding time more than 2 hours. She was menstruating profusely. Six days after admission the hemoglobin had dropped to 36 per cent; red blood cells, 2,000,000; white blood cells, 5800; and platelets, 120,000. There was a moderately high temperature. Nausea, hematemesis, and epistaxis occurred.

Between April 8 and 24 she received 5 transfusions of less than 400 c. c. each of whole blood. In this interval she had many bleeding attacks. Following the last transfusion there was definite improvement; the bleeding abated, and the eruption of lupus erythematosus practically disappeared.

DISCUSSION

This patient has been followed closely since discharge, and has had no return of the erup-

tion and, although the platelet count has never been low, occasionally there is a slight nosebleed, petechia, and ecchymosis, but in no instance in any alarming manner.

Although there have been reports of hemorrhagic complications of the disseminated or acute lupus erythematosus, it was felt that in this case the administration of the gold compound was the substantial contributory cause in bringing about the purpuric manifestations.

CONCLUSION

It must be borne in mind that there is little parallelism in the degree of the hemorrhagic manifestations in the viscera and in the skin. When the use of gold is accompanied or followed by any hemorrhagic symptoms, even if of little account, such as petechia, ecchymosis, or epistaxis, the treatment should be discontinued, since in all likelihood the visceral damage has been more marked than one would be led to think from the peripheral manifestations.

In a patient presenting the phenomena of easy bruising and positive flicking test, gold, if given at all, should be used cautiously.

1930 Chestnut Street.

ABSTRACT OF DISCUSSION

EDWARD F. CORSON (Philadelphia): Speaking only of the clinical aspect of this paper, there are a certain number of instances in which the initial injection of a new series of a heavy metal, notably arsenic and gold, has led to an attack of purpura hemorrhagica. During the interval between two courses of injections of the same drug, the incubation period, there is set up a sensitivity which, on the addition of a quantity of the offending element, sets in motion the destructive forces which develop this hemorrhagic feature.

During the hospitalization of the patient there was in the same ward a similar case produced by arsenic—a woman who had received but a small dose of the first of a new series of neoarsphenamine with, in her case, fatal result. Many of these cases, it is thought, could have been averted by blood chemistry as it has been held that the chloride content, if low, or a high blood sugar, favors the retention of heavy metals in the blood. Others consider that a leukopenia, 4000 or less, is a sign of impending disaster. It is impractical to carry out such procedures in other than very specially selected cases.

In regard to visceral involvement—we can never tell in recovered cases exactly how great has been this particular aspect. Our patient had severe gastro-intestinal colic from time to time accompanied by bloody vomiting and diarrhea; evidently a result of intestinal and stomach hemorrhages. The excellent effect of transfusions was illustrated in her case and the recovery from a desperate condition was undoubtedly brought about by this means. Finally, the lupus erythematosus which had been entirely unaffected by the first series of gold was totally eradicated during the upheaval of the hemorrhagic purpura.

ABRAM STRAUSS (Philadelphia): I had the opportunity of observing the case that was quoted in the

paper. Although I have given hundreds of injections, fortunately I have seen no other reaction of this sort following gold therapy. Because of the infections this

woman had, it may be that the sensitivity developed by these other infections may have had just as much to do with the purpura in this case as the gold.

IMPORTANCE OF ACCURATE MEDICAL HISTORIES AND CAREFUL PHYSICAL EXAMINATIONS*

In Lowering the Cost of Medical Service

ALFRED STENGEL, M.D., PHILADELPHIA

The diagnosis of disease rests on (1) accurate clinical history, (2) careful bedside observation and complete physical examination, (3) the findings derived from the use of instruments of precision and laboratory investigation, and (4) analysis of all data thus obtained.

Going back in medical history we observe that prior to the recent growth of the more exact medical sciences knowledge of disease was based on clinical history and bedside observation and a review of historical records before the development of the art of physical diagnosis by auscultation and percussion reveals abundant evidence of the care physicians gave to a complete story of the patient's illness and to all data derived from painstaking observation of his symptoms. Physicians not only reviewed the patient's own history but gave much thought to the family history and possible hereditary traits.

Unaided by instruments of precision the early physician's power of observation was developed as his most trustworthy guide in diagnosis as well as in treatment.

The Hippocratic facies, the plethoric or apoplectic habitus, the phthisical thorax, the varieties of pulses, the cold breath of the collapsed, the cyanosed type, the rachitic abdomen, the hydrocephalic head, and meningeal cry, the melancholy disposition of the dyspeptic, the sanguine temperament of the consumptive, the significance of dry gripes and liquid fluxes, the ominous significance of precordial pain and the unimportance of hysterical excitement—all these and many more of the same order were recognized by doctors of the eighteenth century before physical diagnosis and instruments of precision were introduced.

Frequently we find that some old-time worthy uncovered curious facts that in our minds are solely contributions of modern scientific study. A surgeon attached to the staff of Gen. Anthony Wayne noted that when he pulverized ipecac he developed an attack of asthma; and still earlier an English physician discovered that sleeping on

hair pillows was a common cause of asthma; Daniel Drake, of Transylvania, wrote extensively on the effect of dust on the lungs and investigated the occurrence of what we now-a-days call pneumoconiosis in a variety of dusty occupations; and Benjamin Rush sagely remarked that during the epidemic of bilious remittent fever in 1793 the cases were most numerous on the river front "where moschetoes abound."

Our early American physicians frequently completed their studies in England, Ireland, and France and those particularly who studied in Paris in the 30's of the last century brought back with them the exceptionally accurate methods of history-taking and bedside observation of Laennec and Louis. It so happens that during my early medical life I had the opportunity of studying the clinical records of several of these men—Gerhard, Pennock, the first William Pepper, and Alfred Stillé, and I still retain a recollection of the astonishment created in my mind by the detail and accuracy of their histories and the minuteness with which they recorded the patient's symptoms.

The practice of physical examination, then a new feature in medicine, was cultivated by all these Paris-trained men but did not become an important item in the daily work of physicians generally until some time later, and eventually, despite its advantages, to some extent has played a disadvantageous rôle in diverting the physician's attention from other kinds of bedside observation and from clinical history.

Improvements in the technic and scope of physical examination—not alone percussion and auscultation, but also the exploration of interior parts of the body—the larynx, the esophagus, the rectum and sigmoid, and the bladder—greatly extended the physician's ability to diagnose accurately and speedily and tended to make extensive and painstaking histories seem less important.

Still more effective in pushing history-taking into the background was the development during the last 3 or 4 decades of the methods of laboratory diagnosis that have so largely changed the

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

whole of clinical medicine. The bacteriologic diagnosis of tuberculosis of the lungs, of diphtheria, of typhoid fever, and of blood infections; the roentgenologic diagnosis of diseases of all sorts, medical and surgical; the chemical diagnosis in nephritis and diabetes, in gout, and certain important endocrine diseases; the use of physical apparatus in the more minute diagnosis of cardiac and circulatory diseases, to mention only a few of our modern advantages, not only extended the physician's ability to recognize disease with increased accuracy, but laid increasing emphasis on other means than mere history and symptomatic manifestations. No one for a moment can question the enormous value of these new methods and the consequent extraordinary expansion of the knowledge and understanding of disease, equaled only in their appeal to our admiration by the rapidity with which they have been achieved.

Among the results of these developments in diagnostic methods one of major importance at the present moment is the enormous increase in cost of medical service. One must not compare cubs with lions and it is clearly improper to compare the value of the medical service of older days, when little, comparatively speaking, was certainly known with that of today when a host of conditions, unrecognizable or at best dimly guessed at in the past, are readily discovered. We live in a practical world which is fully disposed to admit the discovery of amazing new things—the automobile, the radio, the aeroplane and electric devices of all kinds—and to realize how much these things have increased the breadth and joy of life at this day. Nevertheless, persons do not hesitate to feel that those who have made these wonderful discoveries should also somehow bring them within the means of persons of moderate resources. We know how greatly industry has accomplished this and we shall doubtless see still further advances in the direction of economic production.

The same sort of a demand is made on our profession. The world appreciates and applauds the advances in medical sciences and practice but it looks to us to devise the ways and means for making these available at reasonable costs. The responsibility is ours as certainly as it is the responsibility of the people to provide for a just recompense to our profession for the care of those unable to provide for themselves. It is not my present purpose or any part of this discussion to enter upon the latter of these suggestions but it is part of my theme to refer to methods of reducing the costs of medical service for those who are not public charges but who are of moderate means.

Whatever we may think of the desirability of bringing things pertaining to the luxury of living within the reach of persons of moderate means, there certainly can be no doubt that every effort should be made to give to every one rich or poor the best of medical care. It would be inconsistent with the traditions of our profession to hold that the cost of medical care for those unable to pay should be regarded solely as a responsibility of the state and that efforts on our part at making the best medical care cheaper should receive no attention. Illness is always a calamity and men rich or poor are unprepared for it. The latter find it an onerous burden and though they usually accept it and uncomplainingly strive to provide for it, the load is heavy to bear. We of the medical profession should be unremitting in our efforts to lighten this burden of the people.

I have selected medical history taking as one of the ways of approaching the problem of medical costs. The thought in my mind is this: Such a multiplicity of examinations by laboratorians, technicians, and specialists present themselves as possible solutions of a medical diagnosis that the temptation is very great for the physician to institute a whole series of investigations before he inquires very particularly into the patient's history. Medical men will not accuse me of over-drawing the picture in saying that not infrequently patients are put through a long series of examinations before any one had questioned carefully what it was all about. I could readily detail a long list of such cases but just as examples—a man after 4 weeks of intensive laboratory investigation without, I suspect, any adequate physical examination presented himself to me and said, "They told me I have a nervous stomach." One moment's inspection showed enormous peristaltic waves over his stomach and a prompt gastro-enterostomy for what fortunately proved to be a benign stricture of the pylorus relieved him permanently. This was a matter of mere observation. A woman who consulted physicians of a medical group said to me that after they took her name and address she was put through a series of examinations of all parts of her body without any one asking her why she had come for medical advice. A physician, age 27, wrote me that he had had rheumatism in childhood and had developed aortic regurgitation which was recognized when he was age 16 or 17. Lately he had begun to suffer from cardiac symptoms which had necessitated medical care. His physician had made 6 lumbar punctures to make Wassermann tests after his blood Wassermann test proved negative, with the purpose of determining whether antisyphilitic treat-

ment should be used. An average amount of clinical knowledge would have spared him all the discomfort and expense of these uncalled-for investigations. It is of course unnecessary to extend these remarks to other cases of this sort, but it is very important that medical men should realize that a careful history and intelligent study of every case should precede a series of time-consuming and expensive examinations.

We should take something to heart from the methods of our psychiatric friends. They of course are dealing with more intangibles than are we, but they have advanced themselves greatly by painstaking inquiries into the history of their cases and all the surrounding conditions. Their attention to this matter of history is far beyond even our earlier medical practice but it may be well for us to take some lesson from their experience. The practical problem that confronts the physician in many cases is that the illness seems vague and obscure. The patient is manifestly seriously out of health but his history and complaints seem to point in no definite direction, and even a careful physical examination yields no clues. What could seem more reasonable than to call upon all special methods and specially trained men to investigate the problem from every angle? Beyond doubt there are cases in which no other way can be found to solve an obscure problem; but from no little experience in self-questioning and self-criticism I am convinced that a very large part of the cost of multitudinous unnecessary examinations would be eliminated if the preliminary inquiries by the attending physician were more deliberate and painstaking than is usually customary at the present day. After the disclosures of many examinations have been revealed, we sometimes find, on questioning the patient, that significant leads were overlooked because the patient, as a matter of course, did not realize their importance and our delving into the history had been too casual.

To continue a little further the matter of history taking, I wish to add a few comments on current practices. All are acquainted with the method so common in clinics and physicians' private consulting rooms of having histories recorded on printed forms which provide for a "yes" or "no" answer to large numbers of questions. Those to whom the taking of history is entrusted may be clerks, nurses, technicians, or under better conditions junior medical assistants. In any and all these cases it is clear that the history is stereotyped and whatever value it may possess because it facilitates statistical summaries, the disadvantage it occasions in preventing latitude of proper inquiry into the individualities of the clinical condition must be obvi-

ous. In fairness to the method it may be admitted that there is often a special final section of the history that provides for "Remarks" or "Comments" which allow a more individual record of the patient's deviations from a type history; but it requires no extended argument to indicate that when such stereotyped methods are employed great vigilance is required to prevent the history from becoming inadequate or misleading. Those engaged in such methods must inevitably become routinists and unless very careful additional inquiry is part of the patient's investigation further along the line, can one hope for a full acquaintance with the whole clinical history? No matter who takes such a history, or even a better sort less stereotyped, the physician in charge must supplement the preliminary inquiries by careful and painstaking reexamination of the patient's story. Only in this way can we hope to arrive at a foundation for subsequent physical examination and laboratory investigations. Without such backgrounds of knowledge of the patient's history, we may indeed arrive at a full diagnosis by a multitude of examinations, many of them unnecessary and all expensive and may thus content ourselves with accomplishing vicariously, but at the expense of the patient, what we could have achieved in simpler ways.

Lest I be misunderstood let me emphasize that nothing I am now thinking or saying is to discourage extensive investigations of all difficult or obscure problems, but it is very much my belief that greater care and patience on our part in the preliminaries of clinical studies (history and physical examination) would eliminate much of the time-consumption and cost of medical diagnosis.

What has this meant to the patient? He has had many unneeded examinations at a cost difficult for him to bear, but this by no means answers all the criticism that may justly be made of this method of practice. Obviously the doctor a little too appreciative of the data obtainable from laboratorians and specialists and too distrustful of his own capacities may find it increasingly easy to put every puzzling case through a program of examinations by others without bestowing on it a reasonable amount of his own attention. A very immediate result of this is the lowering of the estimation of laymen for the family physician and the consequent habit (now almost properly designated as medical Americanitis) of laymen to select this or that specialist as they think best before troubling to consult their family doctor. A corollary to the proposition is that in the opinion of the public the family doctor's services are worth very little

and that the specialist's services are very precious.

Let me divert for a moment to medical education. Our profession, largely through the intelligent activities of the American Medical Association, has forced upon medical schools a type of premedical education and medical education that is long, arduous, and very expensive. Why was this done? To insure to the public physicians of education, character, and of sound medical training. If so, shall we not take every step to insure that the same public recognizes these highly trained physicians are competent to be their advisors in medical matters?

Let us not ignore the fact that in our own profession lies a responsibility and that no missteps of ours shall work a hardship on our professional brethren. Despite modern tendencies the bulk of the profession still remains "general practitioners" and the whole of organized medicine should lend itself to the effort of maintaining this group at a high level in public estimation. Analyses have been made in various sections of the country to determine what proportion of problems presenting themselves to the family doctor are fully within his ability to deal with unaided. I shall not attempt to summarize these but if the proportion is far from 85 per cent, my personal estimate is erroneous. Not only should the public know this but it should also know that a far more adequate recompense is due the physicians who are able to deal with 85 per cent of illness than is customary at this day. Figures would be meaningless but I strongly suspect the 15 per cent of service derives a larger recompense than the 85 per cent.

It is important that the general practitioner or family doctor should assume all the responsibilities that he can properly deal with in the diagnosis and treatment of his patients and should by thoughtful, complete study of his cases eliminate the many examinations that are made unnecessary.

With his training he should be competent to fulfill this estimate of his capacities and he should be supported by the whole profession, whether engaged in special or general work; while, at the same time, our friends, the general public, should be constantly advised to discourage self-selection of specialists.

One other thought concerning the cost of medical care that has received less attention than it deserves, is that a major duty of our profession is to simplify procedures and bring them more and more largely within the range of the abilities of general physicians. As a matter of fact, many discoveries of the past which were thought a part of the domain of specialists alone are now dealt with by practicing physicians because they have been so modified and simplified that they no longer require the same degree of special skill or training and because the medical education of doctors qualifies them to do many things which in former times were regarded as the exclusive province of specialists. No one of course wishes to take the backward step of decrying specialization in so complicated a profession as medicine, but in the rapid development of things, who will question the charge that the urge towards specialization has become somewhat too keen? The public is responsible to a large extent for this state of affairs. Reading magazine articles, newspaper accounts, and hearing public discussions of medical questions, they have become impressed with the thought that every ailment beyond the most casual sort calls for the immediate employment of some special type of practitioner and the family doctor of course has suffered from this attitude of mind. He himself has still further added to his own difficulties by attempting to forestall criticism by employing laboratory and specialists' aids before he has even attempted to make a thorough-going investigation of his own patients.

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EVILS ASSOCIATED WITH MISTAKEN PESSIMISTIC PROGNoses*

EDWARD J. G. BEARDSLEY, M.D., PHILADELPHIA

It is an interesting and curious anomaly, worthy of thoughtful consideration and serious study, that in the active membership of the medical profession, singularly free of superstitions and dogma, there exists in the minds of many physicians, what one might refer to as a major delusion.

Each believes that his knowledge of medical

science and the training and experience gained in the medical art justifies the assumption that the end of an illness may be foretold before it, in truth, terminates.

The discussion will be restricted to the mistaken death prognoses and little or no reference be made to the all too commonly encountered psychic ills arising in and resulting from mistaken pessimistic prognoses regarding the functional activity of various organs.

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

How frequently one hears, both in medical and lay circles, of a physician predicting the time of death.

How often we hear and, more unfortunately still, how often the lay public hears from the lips of a doctor the phrase: "The patient will not live through the night," and not infrequently this sentence is repeated night after night until recovery, eventually, occurs.

It is a wise and prudent medical man who has not, at some time, ventured a pessimistic opinion concerning the outcome of an acute and serious infection. Even more rare and discreet is the physician, young or old, who has not expressed a hopeless prognosis during the course of a long, exhausting and, apparently, terminal chronic illness of a patient who has continued to live for months or years subsequent to the expression of that pessimistic opinion.

Strangely enough physicians continue to make statements indicating that patients are mortally ill, thus pronouncing, what seems to the relatives and friends of the ill person, a death sentence in spite of the fact that in their own experience they have observed more distinguished and learned colleagues make mistaken prognoses in similar illnesses.

Neither eminence in the profession nor extent of professional experience prevents or precludes serious errors in prognosis.

So frequently do patients, upon whom "death sentences" have been passed by several physicians, outlive their medical attendants that the intelligent lay public have learned to take a doctor's prophecy as an uninspired opinion and hope for the best.

It would not be kind nor would it be generous or fair to judge the ability of a physician by the accuracy of his professional forecasting.

The truth of the matter is that each new patient's illness is a conflict between scientifically known and recognized forces against, in a measure, absolutely unknown and unweighed factors of resistance.

Hereditary resistance to various types of disease, environmental influences, and personal habits and traits, known and unknown, make it impossible to do more than make a more or less shrewd guess as to the outcome.

For one to estimate correctly the magnitude of the harm done directly, indirectly, and remotely by the expression of a mistaken pessimistic prognosis in any one seriously ill patient would require the combined efforts of talented psychiatrists, trained and widely experienced sociologists, and inspired social detectives.

Every physician, with imagination, has witnessed the immediate evil effects of depression

in a home of a serious sickness and has, also, witnessed the therapeutic efficiency of cheeriness and hope.

It is an easy task to point out the hereditary influences through which the medical profession acquired the unfortunate reputation of ability to forecast events in connection with a serious illness.

It has long been asserted by learned historians and distinguished antiquarians that the medical profession is as old as the human race, as old as the necessity for the removal of disease.

More recently, through the scientific researches of paleopathologists such as Roy L. Moodie and similar investigators of the diseases of fossil animals, it has been proved not only that prehistoric man was the victim of diseases familiar to us but that, likewise, dinosaurs and reptiles of the Mesozoic age were, similarly, infected with bacteria and were as a consequence afflicted with diseased processes of the bones as are animals of today.

One may, therefore, read in the annals of time, with proper and justified pride, of at least 60 centuries of continuous medical effort in the interest of diseased humanity.

One cannot resist, in this age of caustic criticism of things medical, quoting Karl Marx, an authoritative and unprejudiced lay observer and a recognized world authority on sociology, who said of the medical profession that, "in its membership from the beginning are united the highest aims and aspirations of the best and noblest of mankind."

We, of today, must humbly and gratefully acknowledge that the finest traditions and the noblest sentiments of medicine have been derived and evolved from the remote past.

It is, unfortunately, true, however, that the inheritance of professional traditions resembles the acquisition of human traits by heredity in that neither the profession nor the individual may select ideal qualities and characteristics and be able to exclude from the inheritance less worthy and less desirable elements.

A significant and potentially troublesome feature of the practice of medicine, ancient and modern, that was incorporated in the earliest and most primitive form of medical art by the medicine man of the tribe was the use of prophecy or forecasting.

This unfortunate addition to medical art, desirable and necessary as it may have been in an ancient culture, possesses features that make it, at times, a source of proper criticism of modern medical art.

It was pointed out long ago by anthropologists that both religion and medicine originated in so-

termed magic and that the primordial fathers of medicine were, for centuries, considered as inspired prophets as well as skilled healers. We are aware that long before the classic period of medical history, in which Hippocrates, and his colleagues at Cos, gave to Greek medicine its scientific spirit and its ethical ideals and standards, medicine and religion were commonly represented by the same priest.

Victor Robinson, with many other medical historians, has directed attention to the fact that the priest-physician was an incongruous hybrid that could not long survive; the priest of that day, aided by universal superstition, conquered the physician, and medicine succumbed for a long period in the enfolding arms of supernatural magic.

Fielding Garrison asserts that the seemingly dignity and authoritative bearing, so characteristic of the ancient Greek and Oriental physicians, were based far more upon the supposed ability to predict happenings to come than upon the power to control such events.

One sees at times but, fortunately, rarely in this century and in modern dress the patriarchal mental attitude of infallibility and omnipotence that was universal centuries ago.

Through all the ages, however, medical authorities and medical practitioners have made no determined effort to repudiate and to rid the profession of the inherited reputation of possessing the ability to forecast the future.

Attempts of physicians to pose, unconsciously, as medical prophets, especially regarding the foretelling the time at which the patient will cease to breathe, has not added to the reputation of the profession's dignity or discretion. If distinguished medical teachers and consultants assume an air of possessing the ability to foretell when life in a given patient will end, how natural for their students, interns and junior colleagues likewise to assume Cassandralike, prophetic rôles.

There is no official course in forecasting or medical prophecy in any modern medical school and yet, somewhere in the curriculum the student finds material that makes him feel capable of forecasting unpredictable events.

Curiously enough, years of professional experience and the remembrance of humiliating mistakes made in the past neither adds to one's accuracy of prophecy nor prevents one attempting the impossible again.

If professional qualifications and reputations were to be judged solely by the accuracy of result in medical prophecy, it would be a sad day for many of the most skilled physicians of the world.

It has been affirmed by philosophers, lay investigators, and other critical observers that no profession is likely to be improved except by and with the active aid of interested individuals outside its membership and entirely uninfluenced by them.

Such critics declare that although a profession can and does perfect its technic in an admirable manner, new and progressive changes must come, as a rule, from without its active membership.

That there is more than an element of truth in these assertions is evidenced by the history of all professions but we may be allowed to question whether the observation is, in truth, a universal and unchangeable principle.

May it not well be that each of us who is the proud possessor of a medical degree and a licentiate in the medical art is, all unconsciously, able to influence each other favorably, our guild, and even the public's mental attitude toward our profession and us, if we remember that every act, every expressed opinion has for good or evil an important and often a lasting influence. It is a platitude to state that we are living in an era of rapid and radical changes and an equally evident truth that the medical profession with other age old professions and vocations must change or be changed with the times. Pottinger has recently in a thought-productive presidential address before the American College of Physicians well expressed a present need in his statement, "It is particularly necessary, at this time, that physicians possess open minds in which the spirit of true progress is held in greater esteem than are long established professional customs."

In this difficult period of economic evolution when many citizens, formerly successful and happy, find life to be both workless and joyless and even existence perplexing, it is not strange that criticism of the existing order is the rule.

The presence of anxieties, worries, and general stress in the physician's own life during these strenuous and emotionally devastating years has caused him to be far more thoughtful and tolerant with the patient's recital of minor or emotional ills.

The life of the average physician was in so-called normal times an exceedingly busy existence and in it there was all too little time for purposeful reflection concerning symptoms that at the time appeared minor and unimportant.

In very recent years, however, there has come to many doctors a perhaps unwelcome and certainly an unusual opportunity for contemplation.

It is a satisfaction to possess sufficient time to perform the day's work well and, in addition, to be able to visualize and sympathetically study,

with a deeper understanding and sympathy the common phenomena associated with the psychological problems in the life of one's patients.

There has been more time and opportunity for leisurely history taking and additional time for thoughtful interpretation of various emotional etiologic factors in the presence of both organic and functional disorders.

One cannot take a series of medical histories without having forced upon his consciousness the great influence for good and, unfortunately, for ill that each physician possesses in his relation with his patients and their families. One is forced to see the harm done by pessimism in so-termed "death prognoses." Often the expressed pessimism of an overfatigued and harassed doctor has a baneful effect upon the life, character, and happiness of an entire family.

It is sure, however, that some of the harmful influence lives long after the physician's own life work is completed.

Concerning how many infants, now mature and healthy men and women, have had "death prognoses" been made in all good faith by excellent, honest, but mistaken medical men.

Medical forecasting at birth or in infancy, as to the tenure of life, is so notoriously uncertain that Oliver Wendell Holmes, that eminent, common-sensed physician and enemy to all cant, hypocrisy, and pretense, said, "To insure a long and successful life one should be pronounced incurably ill, in infancy, by 3 eminent physicians."

Today I shall demonstrate to a class at the Jefferson Medical College a woman, age 38, the mother of 9 living children.

When this woman was 11 she was pronounced to be "dying" by a distinguished medical authority. The disease was rheumatic fever and the complications were the usual ones, pericarditis, endocarditis, and myocarditis. After a long and trying illness the girl recovered from the acute illness and several years later was seen with great interest by the medical consultant who had made a mistaken fatal prognosis.

On this occasion this distinguished and skilled physician stated that under no circumstance could the girl marry and if she was so reckless as to marry she must not attempt to bring a child into the world as, the birth of a child would mean the death of the mother.

This woman is the happy mother of 9 children and each year for 12 years has been used for demonstration purposes to illustrate physical signs of the cardiovascular system so exaggerated as to be a joy to junior medical students.

It is unnecessary to weary you with a recital of my own mistaken prognoses. It would prove

an embarrassing and humiliating experience, although, it is a joy to remember how often my fateful pronouncements, made in all sincerity, acted as invigorating stimulants with resulting happy outcome for those most concerned.

There is scarcely a member of The Medical Society of the State of Pennsylvania who could not, if he would, quote notable examples of recoveries from serious illnesses, pronounced fatal by medical authorities whom we all admire and esteem.

A physician's own physical and psychic health is a decidedly important factor in his mental attitude toward prognoses. There are times when a vacation change and rest will materially alter the physician's mode of thought regarding the probable outcome of chronic illness in his patients. Although certain portions of this presentation deal with the evils of pessimism the writer wishes it clearly understood that there has never been a time in which he experienced greater pride in the characters, the characteristics, and the accomplishments of the ethical members of the medical profession or felt it a greater privilege and honor to be a physician. Criticism of modern medical conditions is both frequent and understandable but it is all too often grossly unjust, as far as the physician's culpability is concerned.

Is it not reasonable and proper that members of the medical profession ask a critical and censorious world what group of men and women have more bravely faced and more cheerfully helped others to endure the recent and present unhappy realities of a disillusioned postwar world than have medical men and women? Is the necessity obvious that physicians should seek inspiration for more useful and more altruistic living from the members of the sister professions, theology, law, and education?

May we not with perfect propriety question whether the astute bankers and brokers, the Titans of the business world, or the leaders of the labor unions have proved themselves to be a better national asset than have physicians? Is it not fair to ask whether the philosophy and logic of the representatives of the large groups mentioned have proved more admirable and helpful and have their lives been more unselfishly lived than those of the members of the medical profession?

The author believes that no other individual citizen of the modern world occupies as advantageous a position to observe and to estimate correctly the true and unchanging values that life holds than does the well-educated, well-trained doctor and, likewise, to no other ob-

server is it as clearly evident what evils may result, directly and indirectly, from the effects of fear, grief, anxiety, disappointments, and other less obvious forms of emotional distress. Possessing such knowledge is it not time that we, as a profession, admit that nature still hides

many secrets from us and that, until we possess more light and understanding regarding individual resistance, our professional duty does not include forecasting or prophesying the day and hour that a patient will cease to breathe?

1919 Spruce Street.

ACUTE LYMPHATIC ALEUKEMIC LEUKEMIA*

JOHN M. HIGGINS, M.D., SAYRE, PA.

This case report deals with a child under my observation during much of his entire life span. The physical condition was never entirely satisfactory; furthermore, there was no explanation for this fact. The eventual developments during the last four months of his life raise the question in my mind whether the etiologic factor of his last illness might have been present almost from birth.

REPORT OF CASE

L. W., male, was born May 11, 1929, at the Robert Packer Hospital; forceps delivery. The child breathed spontaneously and was normal in all respects. The birth weight was 7 pounds 15 ounces. Breast fed complemented by a modified milk formula. Within a week it became necessary to place the baby entirely on a milk formula. This was a mixture of milk, water, and dextrimaltose, and he thrived on it. Circumcised on the eighth day, the wound developed some infection but was entirely healed when a month old. The mother and baby left the hospital on the sixteenth day postpartum, at which time the baby had regained its birth weight.

The parents were both healthy but distinctly not of the robust type. The mother was age 25 and the father about 2 years older. In childhood the mother had had glandular tuberculosis. There was no evidence of any activity at this time nor during the pregnancy. Wassermann reactions on both parents were negative.

During the first year the weight chart seemed normal, but the child did not. The parents were able to provide anything and everything needed. The child took satisfactory amounts of formula and had no difficulty with digestion. The use of cod liver oil and orange juice was begun early. Cereals and vegetables were added at about 6 months. The child took all that was offered. He had no distinct illness but when a year old possessed practically all the rachitic stigmata. Dentition and walking were delayed. Mentally alert and so continued until a few days before death.

During the second and third years there was nothing of much moment. At age 3, all teeth were erupted. Walked well and weight was satisfactory. The rachitic evidences were apparent but did not seem to be very serious factors. Diet was ideal and his whole régime of life left little to be desired.

A few months later, about Aug. 1, 1932, developed difficulty in walking associated with fever. This was during the epidemic of poliomyelitis and the family physician referred him to the Guthrie Clinic.

Examination, Aug. 9, 1932, disclosed nothing enlightening. Heart and lungs were negative, no abdominal masses, reflexes normal, tonsils diseased and in an active inflammatory state. There was no evidence of paralysis but marked weakness, especially of the legs. Urinalysis, negative. Blood count: Hemoglobin, 90 per cent (Sahli); red blood cells, 4,180,000; white blood cells, 12,200; polymorphonuclears, 43 per cent; lymphocytes, 57 per cent. Roentgen ray of the chest was negative except a little more glandular enlargement at the hilus than normal. Hips and femurs showed normal epiphyseal lines. Mantoux's test, done Aug. 9, and read on Aug. 11, was negative. Temperature was 101° F. and pulse 128.

My impression was that the diseased tonsils were probably the source of trouble. Rest was advised with more cod liver oil, and general symptomatic treatments. Tonsillectomy would seem advisable later.

No improvement was noted at home and on Aug. 22, 1932, he was again brought to the Clinic and admitted to the hospital. Temperature on admission was 99.3° F.; pulse, 120; and respirations, 28. During the interim, had complained of epigastric pain at times. Close questioning revealed that he had so complained at times for 2 or 3 months. Weighed 31 pounds and looked as though he had been losing. The head was macrocephalic, dentition normal, throat red, coated tongue, no other mouth or throat lesions. There was marked cervical adenopathy. Lungs and heart were normal. Rachitic rosary was present. The liver and spleen were definitely palpable with epigastric tenderness. There was moderate inguinal adenopathy. Reflexes were all normal. There was no paralysis but he could not stand without aid. There was no jaundice nor skin lesions at this time.

Urinalysis, negative. Blood count: Hemoglobin, 80 per cent; red blood cells, 3,880,000; white blood cells, 9300; polymorphonuclears, 2 per cent; small lymphocytes, 98 per cent; red cells, normal. Almost daily blood counts until his death, Sept. 5, revealed much the same picture. The highest white count was 10,400, with 99 per cent small lymphocytes on Aug. 30, 1932. On the same day the red cells were 3,730,000; and hemoglobin, 70 per cent. The lowest white count was 4800 with 100 per cent lymphocytes. Platelets ranged from 86,000 to 104,000. Except for a trace of albumin, the urine was negative. It was difficult to secure enough blood for a Wassermann test. Blood from both parents was negative. A repeat of the Mantoux test was negative. Throat culture was negative for Klebs-Löffler bacilli.

From admission on Aug. 22, until Aug. 29, there was no definite rise in temperature, the highest rectal record being 100° F. The pulse varied from 120 to 140. There was slight increase in the size of the spleen and the

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

liver. In general there was no great change in condition. He was irritable and weak but not definitely worse. Treatment was forced feeding, cod liver oil, and exposure to sunlight and quartz lamp. A diagnosis of atypical leukemia was seriously considered but not, as yet, definitely established.

On Aug. 29, the temperature and pulse began to mount. At this time a rash, somewhat suggestive of urticaria, appeared on the child's face. Apparently he had more epigastric pain. It became increasingly difficult to administer nourishment. There was marked adenopathy but the liver and the spleen did not continue to increase in size. Obviously the child was failing. A transfusion was tentatively considered but there appeared no sound reason to give it.

On Sept. 3, bronchopneumonia developed and death came early on Sept. 5.

Permission for necropsy, limited to the abdomen, was secured. This confirmed the antemortem findings of enlarged spleen and liver. The mesenteric lymph nodes were enlarged. No other pathology was noted in the abdomen. Microscopic examination of a liver section showed chronic hepatitis with deposits of small round cells. The spleen showed hemorrhage and splenitis.

In arriving at a diagnosis, many possibilities were considered. Before the blood findings were apparent, the tonsils were thought to be responsible for the fever and cervical adenopathy.

Later, Hodgkin's disease was eliminated by reason of blood count, age, clinical course, and especially the rapidly fatal termination. The findings did not correspond to any of the splenic anemias. There are reported certain cases of Gaucher's disease in infants, which have been rapidly fatal. In this disease, however, the low white count is associated with a normal differential. Agranulocytosis had to be considered. The patient's age, the absence of the extreme leukopenia usually found, and the definitely greater increase of lymph glands, spleen, and liver than is usual in agranulocytosis, tended to rule it out. Aplastic anemia was not believed to be a tenable diagnosis inasmuch as the red cells and hemoglobin never reached low limits.

Taking all factors into consideration, the case was typical lymphatic leukemia except for the absence of increased white count and hemorrhage. In view of the very high percentage of lymphocytes, associated with clinical course and necropsy findings, the final diagnosis seems justified.

Guthrie Clinic.

HORSESHOE KIDNEY, CONGENITAL BILATERAL HYDRONEPHROSIS, AND HYDRO-URETER*†

Roentgenologic Aspects

LEON SOLIS-COHEN, M.D., AND SAMUEL BRUCK, M.D., PHILADELPHIA

In view of the fact that there have been two recent complete reviews of horseshoe kidney in the urological literature, the authors have thought it best to spend only a short time on this topic and devote the major part of this paper to a discussion of the subject of bilateral hydronephrosis and hydro-ureter.

Horseshoe kidney was once considered an exceedingly rare condition. This can very readily be imagined if one thinks of the difficulty in palpating an isthmus at either the upper or the lower pole. Since the advent of urography this condition is much more readily diagnosable. The bizarre appearance of the kidney pelves and calices, the situation of the uretero-pelvic orifice, and the visualization of the isthmus uniting the upper or the lower poles of the kidneys serve readily to determine the presence of the fused kidney. Even with modern methods of diagnosis this condition is found comparatively rarely. One must take into consideration the fact that these fused kid-

neys in the majority of cases function normally and unless they become diseased their presence is not ascertained.

Walters and Priestley in their review of 68 surgical cases report the incidence of horseshoe kidney as one to 710 postmortem examinations. Of these about one-third were women and two-thirds men. The fusion of the kidney may occur at either the upper or the lower pole. The isthmus may be composed of normal renal tissue or may be entirely fibrous tissue.

Horseshoe kidney is subject to the same pathologic conditions which can affect a normal kidney. Diseases incident to urinary stasis, such as urinary calculus and hydronephrosis, are more prevalent in fused kidneys than in a normal kidney. On urographic examination a definite outline of the outer borders of the kidney can be seen, but there is a dense area of fusion at either the upper or the lower poles, produced by the isthmus. A careful study of a good flat kidney roentgenogram will usually suffice to lead to the suspicion of this anomaly by showing the proximity of the renal silhouette to the vertebral column, by the obliteration of the psoas margins in

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† From Urologic and Radiologic Services, Jewish Hospital, Philadelphia.

part or in entirety, and by the failure to visualize one or the other of the renal poles. The pelvis of the kidney and the calices are not normal in shape and contour. The two sides often present markedly dissimilar appearances, being depicted on the film in a great variety of patterns. The ureter instead of entering the kidney internally usually enters at the lateral aspect and this is an almost constant finding in these cases. Strictures of the ureter, kinking of the ureter, and urinary calculi present the same appearance when they affect a horseshoe kidney as they do in a normal kidney. Within the last year three unusual and interesting fused kidneys were encountered at the Jewish Hospital, two of these cases presenting definite urinary tract signs. The third case was found in a patient with gallbladder disease in whom a urinary study was made to exclude definitely urinary pathology.

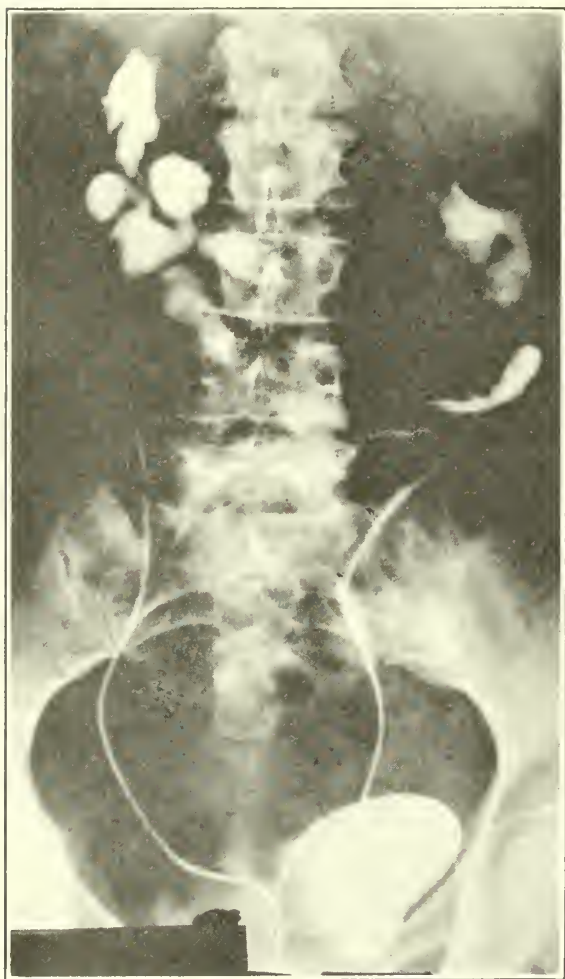


FIG. 1. Case 1. Horseshoe kidney. Note bizarre appearance of pelvis and calices.

HORSESHOE KIDNEY

CASE 1.—L. S., female, age 59, admitted to Jewish Hospital, Feb. 22, 1933, with provisional diagnosis of malignancy of kidney.

About 7 days before admission the patient developed pain in the left lumbar region radiating down the back and thigh and leg. There was also pain in the right shoulder. These attacks would come on and off but lately they have been more frequent. On several occasions vomiting and jaundice were present with the attacks. There is now marked frequency, burning, and tenesmus with urination, but no hematuria or pyuria. Temperature is normal. Blood count is normal. Urine showed only a faint trace of albumin. Cystoscopy was negative. Retrograde and intravenous pyelography presented a most unusual and bizarre appearance of both sides of the urinary tract which was diagnosed as horseshoe kidney and the diagnosis concurred in by a number of roentgenologists who viewed the films (fig. 1).

CASE 2.—B. A. K., male, age 28. Admitted to the Jewish Hospital, 1933, with pain in the left renal region radiating to the left inguinal region. Patient was in good health until about one month ago when he had a sudden attack of rather sharp pain in the left flank accompanied by nausea and vomiting. The pain lasted about 4 hours. Subsequently there was a continuous dull pain in the left renal region and the night before admission he had a similar attack. There was never any hematuria. On admission temperature was normal. Blood count was normal. Urine showed faint trace of albumin and was loaded with red blood cells. Initial roentgen-ray examination showed a calculus in the region of pelvis in left kidney. This was followed by a cystoscopy and retrograde and intravenous urography confirming the presence of a calculus in the pelvis of the kidney. A moderate hydronephrosis of the left side with almost typical appearance of horseshoe kidney. The patient was subsequently operated on and all the findings confirmed (fig. 2).

CONGENITAL HYDRONEPHROSIS

The diagnosis of hydronephrosis and hydro-ureter has become a rather simple procedure since the advent of retrograde and excretory urography. In spite of this, reported cases of bilateral hydronephrosis and hydro-ureter are still of rather infrequent occurrence. Many times this condition is overlooked in the production of symptoms for which the patient seeks a physician's advice. At times it may even occur without any symptoms. Mac Myn in discussing this condition in childhood, arrives at the following conclusions:

- (1) The average age-incidence of mortality is 10 months.
- (2) This condition predominates in males, 90 per cent of the cases occurring in this sex.
- (3) In 50 per cent of the cases this condition was found only at necropsy and not suspected during the life of the patient.
- (4) Practically every case studied presented some abnormality to account for it, and no record of any idiopathic dilatation can be found.

In spite of the rather rare occurrence of this condition, if diligently sought for and kept in mind, quite a few cases are encountered in an average size institution. The authors have seen at least 4 cases within the past year.

It is exceedingly important to determine the etiologic factor in each of these cases and this is sometimes a very difficult procedure. A priori,

and the conclusion must be drawn that the obstruction is an adynamic one due to some fault or abnormality in the innervation of the ureters.



FIG. 2.—Case 2. Horseshoe kidney. Note stone on left side.

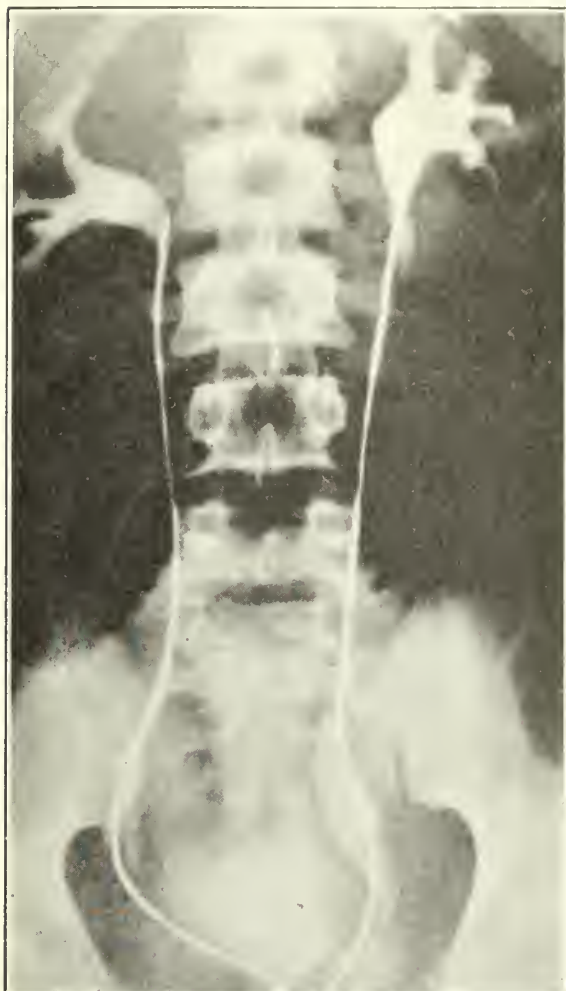


FIG. 3.—Case 5. Congenital bilateral hydronephrosis and hydro-ureter. Observe dilatations of lower ureters.

one must presume that the cause of hydronephrosis and hydro-ureter is some form of mechanical or adynamic obstruction; and it is much more likely that this condition can be explained by an obstruction in one rather than in 2 situations. Therefore, the most likely seat of this obstruction should be in the urethra. Cases, however, do occur in which there is an obstruction in both ureters. Whether these obstructions occur in the ureters or urethra, they are either congenital or acquired. The congenital obstructions consist of stricture, narrow meatus, congenital valves or bands in the posterior urethra, and atresia or narrowing of the ureterovesicular orifices on both sides. In some of the cases of bilateral hydronephrosis and hydro-ureter that have come to necropsy, no evidence of mechanical obstruction has been found either grossly or microscopically;

That this may occur has been definitely proved in an experimental study on dogs by Stewart and Barber, of New York, in which they found that paralysis of the ureter is accompanied by urinary stasis and kidney distention in 66 per cent of the cases.

The acquired lesions producing bilateral hydronephrosis and hydro-ureter consist of traumatic stricture of the urethra, hypertrophy of the neck of the bladder, bilateral calculi, or bilateral pressure from extra-urinary causes.

Should the obstruction occur in the urethra, the bladder is also dilated and is a part of the generalized involvement of the urinary tract; but if there is narrowing and partial atresia of both ureterovesicular orifices, there is a bilateral hydronephrosis and hydro-ureter without concomitant bladder involvement.

Most of the cases of congenital bilateral hydronephrosis and hydro-ureter are the result of a congenital valve, band, or membrane in the posterior urethra. Young, Frontz, and Baldwin classify these cases into 3 groups: (1) Those in which the valve begins at the proximal end of the veru and runs anteriorly to divide at the bulbomembranous junction. (2) The obstructive

thra into the bladder. In the course of a routine urologic study this may be overlooked by the cystoscopist. When the presence of a bilateral hydronephrosis and hydro-ureter has been definitely established by retrograde and excretory urography, a complete urethral study should be made in search of these congenital anomalies. In some cases even this fails, and it is only after an

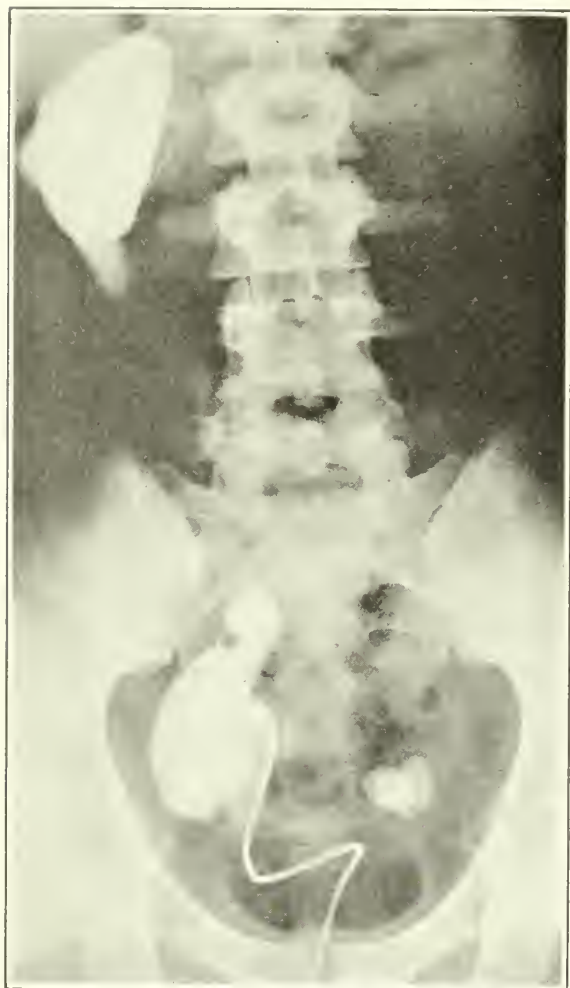


FIG. 4.—Case 4. Bilateral hydronephrosis and hydro-ureter. Note changing positions of stones, an unusual phenomena.

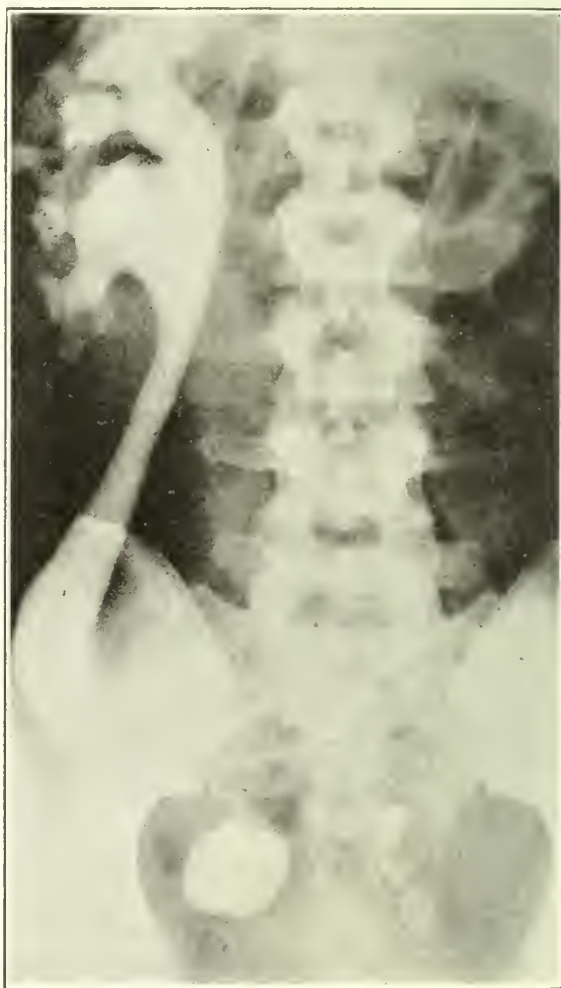


FIG. 5.—Case 4. Bilateral hydronephrosis and hydro-ureter.

bands extend from the distal end of the veru to be attached to the urethra in the region of the internal sphincter. (3) The membrane is not continuous with the veru and may occur at any point in the posterior urethra, appearing as an obstruction across the canal with an opening of varying size.

The difficulty of diagnosis is apparent when we consider the fact that these bands, membranes, or valves produce a partial obstruction to the normal physiologic passage of the urine from the bladder but do not produce any obstruction to the passage of an instrument through the ure-

attempt at instrumentation from the bladder outwards that the obstruction is encountered.

As the causes of these bilateral conditions are varied and manifold depending upon the pathologic or anomalous condition present, Exley warns not to dismiss these patients to untimely deaths because of a failure to search for and establish the true etiologic factor.

When one considers that the changes produced in the renal structure by a long continued obstruction and bilateral hydronephrosis and hydro-ureter may in a few years become so permanent that even the relief of the obstruction will

not bring renal function back to normal, the importance of a very early diagnosis is apparent. Therefore, it behooves both the urologist and the roentgenologist to make a careful urologic and urographic study in all cases, particularly children and young adults, in whom there is any evidence of urinary dysfunction.

Certainly a far larger number of cases than any one roentgenologist has been able to study will have to be investigated to determine whether there are any differences in the roentgenologic appearances of these various lesions, since they all have in common dilatations of the pelvis, calices, ureters, and bladder. Thus, the most meticulous and coöperative care in the study of these cases is necessary.

CASE 3.—M. L., male, age 10, complained of pus and mucus in the urine for the past 4 years. About 4 years ago the mother noticed that the child passed pus and mucus in the urine. This gradually became worse. During the week previous to admission there were little streaks of blood in the urine with slight pain on urination. There is almost constant dribbling and enuresis. He was brought to the hospital for observation. Urologic examination reveals a residual urine of 8 ounces with a dilated bladder. Urethrocystoscopy reveals a definite band in the posterior urethra.

CASE 4.—C. M., male, age 22, admitted to Jewish Hospital, July 5, 1933, with pain in left side. He has had pain in each side of the abdomen at various times within past 4 years. Pain is very severe radiating down the thigh of the affected side. Last attack began the night before admission with very severe sharp pain in the left flank accompanied by vomiting. Slight temperature on admission which gradually became normal. Blood count normal. Urine showed trace of albumin. Cystoscopic examination made on day after admission found obstruction in left ureter rather low down. Obstruction was passed by catheter; 5 c. c. of cloudy urine obtained. Five days later, the right side was examined; obstruction met with about 5 cm. from bladder and could not be passed. Flat plate of abdomen and bilateral retrograde and intravenous urography revealed a very marked hydronephrosis and hydro-ureter affecting both sides of urinary tract. The bladder was markedly distended and both lower ureters formed pouchlike dilatations. Several large calculi were seen in both ureters and because of marked ureteral dilatations the stones frequently changed location, being seen sometimes in lower ureters and sometimes in the upper ureters (figs. 4 and 5).

CASE 5.—L. P., male, age 16, admitted to Jewish Hospital, June 10, 1933, with abdominal pain, fever, nausea, and vomiting. Patient perfectly well until 2 days before admission when he developed severe headache and fever and vomited once. He then developed abdominal pain in left side of abdomen with burning on urination. Cystoscopy 3 days after admission showed a slight congestion of both orifices. Both orifices were large. Right side showed normal function; left side, poor function. Intravenous and retrograde urography showed a bilateral hydronephrosis and hydro-ureter. There was evidence of infection in both sides of the urinary tract (fig. 3).

DILATED BLADDER

CASE 6.—K. M., female, age 3, admitted to the Jewish Hospital, July 27, 1933, with very high temperature. The mother gives the following history: Patient has been sick intermittently for the past 2 years when her temperature reached 105° F. and she had convulsions. The fever lasted for 2 days, later returned for 2 or 3 days, rising to 103 to 105° F. She vomited once or twice but had no more convulsions. There has been all the time some burning on urination, no hematuria, or frequency. Cystoscopic examination reveals cystitis and many white blood cells in the urine with occasional red blood cells. Blood count shows 67 per cent hemoglobin; 4,000,000 red cells and 14,000,000 white cells; white culture, negative. Urine culture showed staphylococci. Under treatment for pyelitis, temperature has gradually receded.

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ABSTRACT OF DISCUSSION

PHILIP S. ROSENBLUM (Philadelphia): From the clinical aspect, certain points may be emphasized. The majority of these children, with persistent pyuria, are treated for so-called cystitis and pyelitis for months or years before a complete urologic study is instituted. The case presented by Dr. Cohen of the boy, age 4, with congenital bar and valves of the posterior urethra was treated for nearly 4 years before a urologic study disclosed the congenital anomalies. The important question is whether or not, in these late discovered obstructions, the marked pathology occurring in the upper urinary tract in the form of infected bilateral hydronephrosis and hydro-ureters is not a permanent one which eventually leads to destruction of the kidneys. The primary obstruction is removed but once these upper urinary changes take place, they in themselves act as secondary obstructions. Perhaps we can perfect some plastic or operative interference to give these kidneys better drainage but our real aim should be to discover congenital anomalies early and correct them before the development of upper urinary pathology.

GEORGE L. ARMITAGE (Chester, Pa.): Horseshoe kidney is often discovered incidental to other conditions. I recently saw a case of horseshoe kidney that was discovered in the course of routine examination of a patient suffering from a gynecologic condition. She had bladder disturbance, pelvic inflammatory disease, and during the course of routine urologic study we found the typical pyelogram of horseshoe kidney, and were able later, during the gynecologic operation, to confirm this by palpation within the abdomen. The fact that horseshoe kidney exists is no absolute indication for treatment, but horseshoe kidney very often develops the same lesions that are found in normal kidneys, stone, hydronephrosis, etc.

JOHN B. LOWNES (Philadelphia): The case in particular that interested me is one that presents bilateral hydronephrosis with a stone in each side. On the one side the stones remained at the lower end of the ureter at all times; in the other one at times the stones migrated with perfect freedom all along the urinary tract. The problem is how to approach this particular side. I have the expectation of seeing this patient shortly for operation and admit that I do not know where to make the incision, whether low down, in the back, or full length. These ureters are quite large, possibly the size of a thumb and it is evidently a congenital process. He has a greatly distended atonic bladder with a condition

of bilateral hydronephrosis with stones in both sides. The question is just how much benefit can the patient get by removal of these stones? There is so much

pathology present that if the stones are removed it will be only a short time until other stones will form. Blood retention is mounting and the urea is fairly high.

INTRINSIC CARCINOMA OF THE LARYNX*

J. HOMER MCCREADY, M.D., PITTSBURGH

This subject presents such a multiplicity of problems that detailed discussion within the allotted space is difficult. Gluck, Delavan, St. Clair-Thompson, MacKenty, Jackson, Lewis, and a score of others have taught, operated, and written; they have pleaded for coöperation and early diagnosis. Fortunately, each succeeding year one sees their efforts bearing fruit in more reported cases, in improved methods of diagnosis and technic, and in a lower operative mortality.

Cancer of the larynx is very insidious in its onset but there is no internal region of the body in which cancer gives such an early indication of its presence, in which its evolution is so slow, or in which it so long remains localized as it does in the vocal cords, and in no other internal situation can surgery provide such fair prospects for enduring freedom from the disease.

There are two types of carcinoma of the larynx: *extrinsic* and *intrinsic*. Although the first, extrinsic, is usually considered inoperable by many, it is surprising what gratifying results can be obtained from extensive surgery. Since we can now grade the type of cancer, biopsy can determine which cases call for operation and which are more suitable for deep roentgen-ray or radium therapy. The extrinsic, in closer proximity to softer tissues, is naturally more richly supplied with lymphatics and, therefore, has a tendency to metastasize early. Although the extrinsic is classified into three subgroups, the epiglottic, the aryepiglottic, and the posterio-cord, there are many borderline cases that are operable depending upon the judgment and experience of the individual examiner or operator.

As for the second major type, the intrinsic, we consider all localized intrinsic carcinoma operable, but if it has involved the thyroid cartilage, or extended into the cervical glands or through the cricothyroid membrane, or posteriorly into the esophagus, or too far below the vocal cords, again it resolves itself into a question of the experience of the surgeon.

In the interior of the larynx, if there is a scantier lymphatic supply than in the surround-

ing laryngeal structures, the extension of the growth is naturally more sluggish. Carcinoma of this group is classified as glottic and subglottic, or as a mixture of the two. Naturally the mass situated directly on the vocal cord itself, having an extremely scant lymph supply, is most suitable for surgical success.

Although we cannot, as yet, prevent cancer or govern the initial point of attack, we can at least prevent the extension and ramification of this disease by early diagnosis and by the institution of the proper surgery. If the medical teachers, the practitioners, and the laryngologists can be impressed with the seriousness of the initial symptom, *hoarseness*, and the need for immediate diagnosis, then cancer of the larynx can be placed upon a more favorable surgical plane.

Hoarseness, the most constant and early symptom, is usually allowed to continue untreated by the patient because there is no accompanying pain or distress. If the hoarseness were associated with pain, fever, difficulty in swallowing, or malaise, medical attention would be sought immediately; but hoarseness that lasts more than a few weeks, even without associate symptoms, should call for a medical examination by a competent laryngologist. Even though very little change is seen by laryngeal examination, the patient should be reexamined at reasonable intervals until hoarseness entirely disappears, or until a definite diagnosis has been made. Physicians are always on the alert for hoarseness in a patient past age 40, but not enough alarm is felt if the same condition occurs between ages 20 and 40. I have seen several cases in patients age 20 and 25, and many others have been reported. It is, therefore, imperative not to ignore the possibility of the occurrence of laryngeal carcinoma in the lower age brackets.

Biopsy should be done in all cases whether the malignant picture is self-evident or whether the growth is merely of suspected malignancy. There are so many laryngeal masses simulating early cancer that it is an impossibility to distinguish clinically between them. I have taken many sections from the larynx feeling absolutely sure that malignancy would be reported by the pathologist, whereas the cases often proved benign, and sometimes benign appearing neoplasms

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

have proved malignant. Often it is necessary to section a third time or to do a thyrotomy for a more favorable specimen before one is satisfied as to the pathology.

A biopsy section should always be removed carefully, with the object of obtaining a deep section rather than a superficial one. Undue manipulation of the mass, or partial removal, even if the growth is easily accessible, should be avoided. Use the Jackson direct speculum and punch in obtaining the section, or, in occasional cases, the Lynch suspension apparatus. Either local or avertin anesthesia is preferable. If the growth is small, located in the anterior commissure, and if a subglottic involvement is suspected, avertin as the general anesthetic affords a better opportunity to retract the cords and explore or section the subglottic area.

Do not depend upon a frozen section. Before proceeding with the major operation, give the specimen to a pathologist for thorough preparation and study. If carcinoma is reported, send either a second specimen or one of the prepared slides to a second pathologist for confirmation. Laryngectomy is of such importance to the patient that the surgeon must be doubly sure of his ground.

The grade into which a tumor falls gives the physician some idea of the prognosis or the line of treatment to be followed. New and Fletcher have recently published an article on this subject which is an admirable treatise. Albert J. Bruecken, of Pittsburgh, has suggested the following grading:

Grade I. Including forms of precancerous hyperplasia, papilloma and leukoplakia; and pseudo-epithelioma, for which we suggest a Grade $\pm$.

Grade II. Keratinizing, squamous-celled cancer, or epidermoid cancer, or epithelioma.

Grade III. Nonkeratinizing, squamous-celled cancer.

Grade IV. Round-celled cancer, lympho-epithelioma, transitional-celled cancer, lymphosarcoma, and lymphoblastoma.

The same grading can be done with secondary involved glandular or adenomatous tumors. It should be thoroughly realized that no one specimen fulfills all the requirements of one particular grade.

After biopsy and a diagnosis of laryngeal cancer has been made, what is the procedure? Usually there ensues a period of unpleasant conferences between the surgeon, the patient, and his family, for if the surgeon is to convince the patient of the seriousness of the condition and the proper procedure to follow, he must be frank in his remarks. He must explain what radium and roentgen ray have to offer as to possibilities of a cure, what constitutes a laryngofissure, what

the patient can expect from a laryngectomy, what inconvenience he will be compelled to put up with after the laryngectomy, and what will happen if action is deferred. The decision usually takes from two days to several weeks, but the patient almost always comes to the conclusion that he would rather be alive without his larynx than dead with it. Once consent is given, the surgeon must decide whether a laryngofissure or a complete laryngectomy should be done. A consent for a complete laryngectomy should always be obtained, for in many instances, after opening the larynx, the operator finds that any procedure short of the radical operation would be useless. Incidentally, it is much easier to persuade a patient that he should have a laryngectomy if he sees a few other patients who have had the same operation.

When a total laryngectomy is indicated, and when less radical measures hold out little or no hope of success, I prefer two stages of operation. The first is a preliminary tracheotomy under general anesthesia, about a week or ten days before the laryngectomy is performed. This gives the tracheitis or bronchotracheitis which follows the tracheotomy a chance to subside. The operative technic is essentially the same as that advocated by Gluck and MacKenty with certain modifications. Avertin is my choice of anesthetics, and rarely is it necessary to administer ether *via* the tracheotomy tube. No attempt will be made to discuss the finer details of the operation and only a few of the steps along with the modifications can be mentioned because of limited time.

The usual median incision is made, beginning at the hyoid bone and extending down to the tracheotomy incision, then down to the suprasternal notch. Another incision is made transversely at the upper end of the median incision, forming the letter T. The larynx is exposed in the usual manner and severed from the trachea below the cricoid ring. In many cases this last procedure is very tedious and much valuable time is lost, because of the rigid thyroid cartilages and firm adhesions between the larynx and the esophagus. This step is modified by making a medial incision through the wings of the thyroid cartilage and spreading both sides. The perichondrium is dissected bluntly without difficulty from the sides of the cartilages and they are then removed at their bases. This step leaves the larynx without its cartilaginous support, so that it can be grasped and removed easily from the anterior wall of the esophagus. The chances of perforating the latter are decreased, as is the operating time, which is an important factor. Above, the larynx is severed in

the usual manner at the thyroid membrane in front, and from the esophagus at the arytenoid cartilages posteriorly. The Rehfuess feeding tube is then inserted through the nose to the stomach. The free end of the esophagus is attached to the sublingual tissue by interrupted sutures, and the soft tissues are then brought together in the median line by interrupted absorbable catgut sutures. Then the skin incision is closed either by skin clips or by interrupted silkworm sutures. The tracheotomy tube is replaced by a laryngectomy tube. The operative field is then cleansed and the usual dressing is applied.

Too much stress cannot be placed on the proper postoperative treatment of these cases. Competent nurses, specially trained in the care of laryngectomies, should be on duty both day and night. A good suction pump with a small catheter attached should be in readiness at all times to remove *via* the laryngectomy tube the thick tenacious secretion which often forms for the first 36 to 48 hours. The laryngectomy tube should be cleansed thoroughly at frequent intervals and changed in 24 hours. All this treatment requires special training.

For the first 10 postoperative days, nothing is given by mouth; this proves to be the most trying and depressing period for the patient during his stay in the hospital. All nourishment is given *via* the Rehfuess tube, thereby largely eliminating the danger of esophageal fistulae.

Convalescence, as a rule, is uneventful, with the exception of possibly a superficial stitch abscess, and the incision heals by first intention without an ugly disfiguring scar. It is surprising how cheerful and grateful these patients are, especially after their artificial larynges have been supplied and they find they can still carry on a conversation which can be easily understood.

Certain problems and pertinent questions have presented themselves:

1. Have these cases been treated correctly in the past?
2. What kind of treatment does the local laryngologist advise?
3. What kind of treatment does the attending physician advise?
4. Should we treat these cases with deep roentgen ray or radium?
5. Should a laryngofissure, a hemilaryngectomy, or a total laryngectomy be performed?
6. Are these operations worth while to the patient?
7. Why do the majority of these patients present themselves for serious consideration after one or two years' duration of the local carcinoma?

The answers to all these questions seem to point emphatically to the necessity for proper early diagnosis of the carcinoma and for adequate operative attention and treatment.

121 University Place.

ABSTRACT OF DISCUSSION

EMILY LOIS VAN LOON (Philadelphia): As Dr. McCready has stated, the psychic state of the patients, postoperatively, is surprisingly good. They are often able to carry on their work in an almost normal manner with either the artificial larynx or the buccal voice obtained by using swallowed air.

This almost universal cheerfulness of the laryngectomized patient naturally influences us in the painful conference mentioned by Dr. McCready when the therapeutic possibilities are presented to the patient and his family. Patients are too apt to grasp at radiation as a less formidable procedure than operation. But not only are the ultimate results of radiation less favorable, but the immediate sequelae are infinitely more painful. After a laryngectomy, a patient has a fairly comfortable convalescence; on the other hand, intensive radiation such as the Coutard method, produces so much reaction, with skin burns, dysphagia, dyspnea, nausea, and anemia that the patient is miserable. If the case is too extensive for laryngectomy, radiation will treat the whole area, including the metastases in the glands, and we have seen several patients recently in whom the immediate result was a normal-appearing larynx, whatever the ultimate result may be.

As to late diagnosis, in the Chevalier Jackson Clinic at Temple University Hospital it is interesting to note that among those cases early enough for laryngofissure only 16 per cent were ward cases; among those too far advanced for any type of surgical procedure, 55 per cent were free cases.

It is the general practitioner who sees this type of patient first, and whose responsibility it is to refer them for laryngeal examination. It is in the medical schools that we have the best contact with the incipient general practitioner. Possibly if the teacher, in lectures and clinics, emphasized and made dramatic the picture of hoarseness as the first symptom of laryngeal cancer, the student would be more alert afterwards to the possibility of early diagnosis. Even a slight increase in the number of operable cases would be well worth while.

LOUIS H. CLERF (Philadelphia): The importance of early diagnosis is obvious. Unfortunately, however, many patients are seen when the disease is advanced, in spite of the fact that the patient has been under the care of a physician, at times an otolaryngologist. The undergraduate, the general practitioner, and the otolaryngologist should all be familiar with minor laryngoscopy. They should also fully appreciate that no conclusions can be arrived at in cases of hoarseness until after the larynx has been examined. Biopsy and classification of tumors with regard to the degree of malignancy are important. It is generally admitted that biopsy does not increase the tendency to metastasis provided operation promptly follows. The degree of malignancy is a very definite consideration in determining the type to be employed, whether it is irradiation or operation.

In considering the operative treatment, the type of operation to be performed must be determined on the location of the growth and the extent of its involvement, the type of the growth and the question of

metastasis. In the anaplastic type, the so-called grade four, it is questionable whether surgical treatment is of any avail, irrespective of the size and extent of the growth. The details of surgical technic are matters for individual interpretation. It is necessary to remove the growth together with an ample margin of normal tissue. If this can be performed by laryngofissure there certainly is no indication for laryngectomy. A radical

form of laryngofissure is almost as efficient as laryngectomy.

DR. MCCREADY (in closing): The first man presented was the patient upon whom was performed the operation shown in the motion picture. He made a good recovery, has gained 30 or 40 pounds since, and is very happy.

TOXIC CIRRHOSIS OF THE LIVER*†

Caused by Cinchophen and Its Derivatives

STANLEY DEWITT CONKLIN, M.D., SAYRE, PA.

Cinchophen and its compounds have been used in medicine for nearly 25 years. At first no toxic reactions of the liver were observed, but about a decade ago a case of toxic hepatitis caused by the use of Weldon tablets was reported by Cabot. In 1923 Worster-Drought reported a case of atophan hepatitis. As far as can be learned these are the first recognized cases of liver atrophy from the administration of cinchophen. During the past 5 years the reports of cases of liver damage found in patients who had taken cinchophen have increased in an alarming fashion worthy of note. The writer has had 5 cases in the past 18 months, a review of which will be given in this paper. The fact that 2 of these patients were referred to the Clinic for surgery on the biliary system on account of existing jaundice suggested that the topic is most important.

Cinchophen was first introduced to therapeutics in 1908 by Nicolaier and Dohrn under the name of atophan, for the treatment of gout. Since that time several commonly used derivatives of this drug have been advised for the general treatment of arthritis and as an analgesic. Thus today we have a great number of these preparations, all very similar, yet being dispensed under many different trade names, and it is very doubtful whether or not the ones using or prescribing them are fully aware of the dangers of toxicity which they possess. Hench, of the Mayo Clinic, gives a list of more than 30 such preparations that contain cinchophen and are widely advertised. In addition to this, he has collected the names of 500 "rheumatic," "rheumatism," and "antigout remedies" or "uric acid solvents" advertised in American drug lists, scores of which he feels undoubtedly have cinchophen as their base.

Chemically, cinchophen is 2 phenylquinoline 4 carboxylic acid. In its actions it is supposed to cause an increase in uric acid excretion, produce an antipyretic effect, and give analgesia. According to Rotter, it is excreted in the urine in a moderately oxidized state. In addition to its therapeutic effects, cinchophen and its derivatives seem to possess side actions which are often of grave danger to the patient. As yet there is no satisfactory pharmacologic explanation of these reactions, although several theories have been advanced and much experimental work has been done.

As the scope of this paper will not permit a detailed review of the literature of this work, I will summarize the point by stating the consensus of opinion seems to be that the toxic effects are derived from a splitting of the quinoline nucleus which gives rise to a free benzene ring. Those who object to this, state that benzene is not easily decomposed and only a little oxidizes, forming phenols and acids. Apparently neither benzene nor phenols produce jaundice in overdoses; the nitrobenzenes and nitrophenols all produce hepatic damage. It is felt that these highly toxic nitrocompounds are produced during the oxidation of the quinoline nucleus and the liver is concerned in the decomposition of the same. It, therefore, seems that only under certain predisposing conditions does the liver become sensitized to the toxic action of the cinchophen preparations. It would be within reason to suspect that the glycogen content of the liver cells at the time of administration of the drug was also important.

PATHOLOGY

There have been a sufficient number of necropsies on cinchophen poisoning cases so that the pathologic findings in respect to the liver are well understood. In general all writers agree that the hepatic lesions closely, if not exactly, duplicate the lesions of acute or subacute yellow

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

† From the Guthrie Clinic, Sayre, Pa.

atrophy. The exact picture in a given case will depend upon the severity of the intoxication, the extent of the degenerative processes in the liver, and what compensatory regenerative ability the liver shows. There may be early rapid atrophy of the liver, with death, or a more prolonged illness, with the development of cirrhosis. The picture varies from extensive atrophy of the liver parenchyma, chiefly in the acute fulminating case, to marked increase of the connective tissue, increase of bile ducts, and regeneration of the hepatic parenchyma into small nodular formations in the more chronic case.

We now know that there are patients with cinchophen sensitivity who recover. In regard to these patients, Beaver,¹ of the Mayo Clinic, states that "we may anticipate from the pathological viewpoint that the restoration of these patients to clinical normality probably does not always signify complete anatomical restoration of the liver, but rather that in some of these cases the liver is in a state of subclinical cirrhosis, which may at some future time become decompensated." There is some evidence to support the possibility that the degenerative processes are not entirely limited to the liver. Kidney damage has been reported by Houzlik, and acute pancreatitis by Petty, but Beaver and Robertson² believe these changes are "secondary to the toxic disturbances concomitant with atrophy of the liver."

TOXIC SYMPTOMS AND CLINICAL PICTURE

The toxic symptoms of cinchophen poisoning may well be roughly classified into four groups, as suggested by Parsons and Harding: (1) Cutaneous manifestations, such as pruritus, angioneurotic edema, urticaria, nodular and papular rashes; (2) anaphylactoid reactions characterized by neurocirculatory disturbances associated with rapid pulse and lowered blood pressure following the ingestion of single doses of cinchophen; (3) gastro-intestinal disturbances, including simple aphthous ulcers in the mouth, pyrosis, nausea, vomiting, and diarrhea; and (4) liver involvement, as indicated by the appearance of jaundice.

As the object of this paper is to discuss only the toxic cirrhosis aspect, the details in regard to the clinical picture of the other toxic manifestations will be omitted. The clinical picture of cinchophen poisoning is that of acute yellow atrophy of the liver. Jaundice is the most frequent symptom and should be regarded as one of serious damage to the liver. It is usually painless and considered a late manifestation. Even before the onset of jaundice there are warning signs in complaints of gastric irritability,

anorexia, nausea, vomiting, diarrhea, malaise, headache, and tenderness about the liver. The stools may be acholic. Itching is not common. Fever is usually absent, and if present is either due to some secondary factor, such as pneumonia, or may result from the condition for which the drug was given.

The jaundice, which usually comes in the first week of the illness, continues to deepen. If by the end of the second week of jaundice, improvement in the patient's general condition is not observed, the symptoms progress, jaundice and toxemia increase, the liver will be found to decrease in size, edema of the extremities appears, and a little later ascites can be elicited. This finding is a bad omen, as most of the patients presenting it die. In the final stage the patient becomes delirious, later comatose, and then dies, thus presenting a very marked picture of hepatic insufficiency.

One of the most dangerous things about cinchophen poisoning is the late and relatively abrupt onset of the symptoms. Frequently the first signs of poisoning do not appear until at the completion of treatment, and cases are reported in which they developed weeks after discontinuing the medication. Immediate reactions have been reported in which the derivative, diodoatophan, had been given intravenously. Only a few of all the persons who take cinchophen ever show any ill effects. As suggested by Rabinowitz, those suffering from malnutrition, gall-bladder disease, cirrhosis of the liver, pregnancy, chronic alcoholism, chronic nephritis, or any past liver disease associated with jaundice are particularly predisposed to intoxication.

Another interesting observation in this condition is that the degree of injury seems to bear no relation to the quantity of the drug taken. Hench reports the case of a patient who had taken from 60 to 90 grains of cinchophen daily, over a period of 18 years, with no discomfort or disability. On the other hand, several cases of severe poisoning are reported after consuming only a few grains of the drug. Graham and others, in England and Germany, have recommended the intermittent use to avoid toxic effects, but this has been shown to be not without danger. Likewise the intake of large quantities of liquids to aid in a more rapid elimination, or the use of sodii bicarbonate, guarantees very little. It has been noted in a few instances that if the drug were discontinued for a time, although previously the patient had experienced no toxic symptoms, they appeared on readministration. Therefore, it is always best when again advising the use of the drug, to instruct the pa-

tient to start with a small initial dose to determine sensitivity.

DIAGNOSIS

Clinically, toxic cirrhosis caused by the use of cinchophen cannot be distinguished from the catarrhal form of intrahepatic jaundice. Diagnosis in the cases of painless jaundice is always an interesting problem. Suspicion of a toxic cirrhosis may be suggested only if the clinical and laboratory studies evidence a degree of hepatic injury greater than is usually seen in catarrhal jaundice. The diagnosis depends entirely upon the history of the preceding use of cinchophen or one of its related compounds most often in the treatment of a rheumatic condition. This information is not always easy to obtain. It is a common practice for rheumatic sufferers to take medicine recommended by a friend, a neighbor, or newspaper advertisements, and often they do not know the name or contents. This has been my own experience. Every individual developing jaundice should be questioned in detail by his attending physician regarding all recent and remote medication, also whether or not the patient has been suffering from joint, muscle, or nerve pain.

The diagnosis in nonfatal cases is extremely important, because the patient can then be informed about his idiosyncrasy and instructed how to avoid any future calamity. In view of our present knowledge regarding cinchophen poisoning, there is no doubt that many cases of toxic cirrhosis and jaundice due to it are unrecognized.

Not a few of these patients with jaundice resulting from cinchophen intoxication are subjected to surgical procedures for relief of their discomfort. As mentioned earlier in this paper, 2 of the 5 cases were referred to the Clinic for gallbladder surgery. This emphasizes the great importance of correctness in the diagnosis of the cause of the jaundice.

TREATMENT

Most of the plan of treatment for these patients resolves itself into symptomatic measures, with emphasis on increased carbohydrate intake in order to minimize the amount of work the liver must perform. This can be accomplished by giving dextrose by mouth or rectally, or in severe cases, intravenous injections of glucose daily. Insulin used in conjunction with this therapy is advantageous. The amount of protein in the diet should be reduced to a minimum. Elimination should be assisted and the fluid intake and output ratio regulated. If edema or ascites occurs it should be treated conservatively.

The use of the usual mercurial diuretic preparations intravenously in the treatment of ascites in this condition is not without definite danger. Petermann, of Berlin, has advised as a last resort surgical drainage of the hepatic or common bile ducts. This does not appear to me to be a rational plan of treatment.

Finally, any patient who is taking cinchophen or one of its derivatives should be instructed about the toxic effects and warned to discontinue at once its use on the earliest appearance of gastro-intestinal symptoms. Furthermore, once having experienced a toxic reaction the individual should be informed never to take the preparation again.

The importance of a careful follow-up for a long time on these cases, in order to determine how near to a normal function the liver regenerates, should also be emphasized.

CASE REPORTS

CASE 1.—Mr. L. Y., age 47, was first seen April 12, 1932, complaining of jaundice and enlarged abdomen. He had suffered from lumbago since October, 1931, yet was able to work as a trainman. Early in March, 1932, on the advice of a fellow workman, he purchased some atophan at a cut-rate drug store. After taking the second tablet (total 15 grains) he became nauseated but continued the medication for 2 more days. Two weeks later he again had nausea, vomiting, loss of appetite. Five days later jaundice appeared and had been increasing. His family physician treated him for catarrhal jaundice but with no improvement, and after one month sent him to the hospital for surgery. He was markedly jaundiced, there was definite ascites and the liver could be felt below the costal margin. For 10 days there was a temperature up to 102° F. Two weeks after admission he began to improve. His convalescence was slow, the icterus remained for 2 months. He resumed work in September, 1932, and has felt well since. I have seen him many times, the last visit being one month ago. There has always been some liver enlargement, so apparently he is in a state of subclinical cirrhosis.

CASE 2.—Mrs. F. D., aged 62, was seen in July, 1932, in consultation at her home. She had suffered severely from arthritis for 4 years. Through a newspaper advertisement she had a short time before procured some Renton's hydrocin tablets. While taking the second bottle of these she began to have nausea and vomiting. This continued and in a few days jaundice appeared. The jaundice deepened and about a week later her abdomen started to increase in size. In a few days more edema of both legs developed. All this time her general condition was growing worse. A diagnosis of toxic cirrhosis caused by cinchophen was made. She was given 100 c.c. of 50 per cent glucose daily. The diet was limited in protein and not more than 1200 c. c. of liquids were allowed daily. Because the ascites was extreme, a paracentesis was performed 3 times, several quarts of fluid being obtained at each aspiration. From the time of the appearance of jaundice there was no improvement and she died 3 weeks later.

CASE 3.—Mrs. Eugene D., age 42, admitted March 31, 1933, with the chief complaint of generalized prur-

ritis. Onset was sudden 2 weeks before, following taking five 7½ gr. atophan tablets for rheumatism. The day after taking atophan the face began to swell and whitish wheal-like areas appeared over the entire body, accompanied by intense itching. Swelling lasted 4 days. No eruption since then, but intense itching had persisted. Five years ago this patient took cinchophen with a similar reaction but less severe. Physical examination was negative except for itching erythematous areas over various parts of the body. Laboratory studies revealed nothing of importance. There was no evidence of any hepatic involvement. After one week in the hospital the patient was discharged much improved and has remained well to date.

CASE 4.—Mr. C. M., age 55, was admitted to the Robert Packer Hospital, Jan. 4, 1933, with painless jaundice present since Dec. 27, 1932. He had been treated since early in 1932 for liver and gallbladder trouble. He had experienced no acute abdominal pain. In November, 1932, he had some pain in the shoulders and back, diagnosed as neuritis, and farastan was prescribed for it. He had just finished the second box (48 capsules to a box) when he had abdominal distress followed 3 days later by jaundice which had increased and had shown no response to medical treatment. He was referred to the Clinic for gallbladder surgery. After thorough study, a diagnosis of toxic cirrhosis caused by cinchophen was made. Under appropriate treatment he gradually improved. His jaundice, which was intense, did not all disappear for 3 months. There was no hepatic enlargement or ascites. The Kahn and Kolmer test each showed a 4 plus reaction. This was his first knowledge of the syphilitic infection, and as he had received no arsphenamine it was felt that this could be ruled out as a cause of the icterus. No antisiphilitic treatment was given during this illness. He was last examined on Sept. 16, 1933, and found to be in excellent condition.

CASE 5.—Mrs. F. H., age 28, admitted March 2, 1933, with complaints of nausea, vomiting, and jaundice of 2 weeks' duration. She was 6½ months pregnant. There had been no nausea or vomiting in early pregnancy. For 2 years she had suffered intermittently from arthritis of the hips and hands. A short time before admittance she had been given atophan. Two weeks after completing the treatment she noticed a gastrointestinal disturbance followed by jaundice, which was increasing. The day after admission to the hospital she was delivered of a stillborn fetus. No improvement was noted until 4 days later when nausea and vomiting ceased and jaundice began to fade. She was discharged from the hospital 17 days after admission. She was last seen 2 weeks ago and was in good health.

COMMENT

No doubt many of you are asking: What shall be done about cinchophen? All know that in certain cases of arthritis and neuritis it gives almost spectacular relief of pain, and for this reason has been accepted as a panacea for practically all such distress. Furthermore, there are no restrictions on drug stores in dispensing it, thus making it easily procurable by the laity. As stated, most quack rheumatism cures contain cinchophen as the active principle, again making unsupervised administration easy. The proper conclusion is that we, as physicians, should be

more careful in instructing our patients about the toxic effects of these remedies, and still better, in view of the increasing number of case reports of toxic hepatitis caused by these compounds, we should avoid their use until some safe method of administration has been demonstrated.

SUMMARY

While cinchophen has been in use therapeutically for more than 20 years it is only until the past few years that attention has been called to the possibility of fatal reactions.

The toxic reactions of cinchophen are almost entirely limited to the liver and at present it is felt they are due to the benzene ring or highly toxic nitro compounds.

Apparently only under certain conditions is the individual susceptible.

Preëxisting gallbladder or liver disease with jaundice, malnutrition, pregnancy, chronic nephritis, chronic alcoholism, or cirrhosis of the liver are thought to be predisposing factors.

Neither the length of time the preparation is administered nor the size of the dose appears to predispose to the onset of the toxic symptoms.

Gastro-intestinal symptoms followed by painless jaundice are the most common early signs of a toxic reaction, and with the appearance of the first of these the preparation should be immediately discontinued and the patient warned of the danger of future readministration.

In treatment, rest, forcing of liquids, low protein diet, high carbohydrate intake are the essentials.

It is recommended that those who use this drug or its derivatives do so conservatively, and in view of present knowledge reevaluate the use of cinchophen in reference to its harmful properties.

Guthrie Clinic.

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ABSTRACT OF DISCUSSION

LEONARD G. ROWNTREE (Philadelphia): We have had presented 5 cases of poisoning in 18 months. It is not a problem for individual doctors, rather for organized medicine and probably for legislation. We cannot stop this as individual doctors. It must be handled through public health as a matter of public safety. Most of the patients have taken patent medicine and die from acute yellow atrophy of the liver.

I would suggest that the author send the paper to the editor of the *Journal of the A. M. A.* so that he may have the facts for consideration. My belief is that this must be handled as a matter of legislation, but there should be in the hands of the authorities of the A. M. A. all data relating to such cases. I met Dr.

Fishbein as I came into the section meeting and he says they are making every effort to handle this matter, but the more data we can give them the better.

We should not lose sight of the great advantage these medicines have in giving relief from pain, but there should be an effort to control their use by the sick and that cannot be done except through suitable legislation.

SAMUEL L. IMMERMANN (Philadelphia): We can put the causes of epigastric distress in a number of classes, the first class being constitutional diseases which may cause pain in the epigastrium. In that group a number of diseases, such as Bright's disease and so on, may give rise to the symptoms. Another one is early Hodgkin's disease, but even if we have this in mind it may be difficult to make the diagnosis certain. Toxic adenoma of the thyroid must be considered; in these cases the adenoma may be quite small and entirely overlooked as a cause of the patient's complaint. Another cause is the gastric crisis that occurs in sickle-cell anemia.

There are a number of nervous conditions that cause pain in the abdomen; tabes dorsalis as an example.

Vertebral lesions sometimes give rise to pain in the abdomen, also herpes zoster.

An often overlooked condition which may produce these symptoms is spinal arthritis which causes pain down the thigh and sometimes is associated with referred pain in the abdomen.

Two other conditions are very important, diseases of the heart in general and various abdominal conditions. In the abdomen, the so-called "irritable colon" is the cause of a great deal of abdominal distress and gall-bladder disease is often the cause of the patient's complaint.

Many heart conditions cause epigastric distress. Mitral disease sometimes does this. Now and then a patient is prepared for operation for an acute condition within the abdomen because of epigastric pain, which really is due to mitral disease. Aortic regurgitation is another cause. Cabot reports two such cases in which there were no arteriosclerosis and no coronary disease. Under these conditions it is very difficult to determine why a patient has abdominal pain. Other heart conditions produce abdominal distress of varying degrees.

IS CANCER EDUCATION EFFECTIVE?*

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Shortly after this Commission was organized (1909), it made a survey of the cancer situation in the State to show (1) the delay on the part of the patient before seeking medical advice and (2) the delay between the first visit to a physician and the institution of an adequate attempt at radical cure by surgery, radiation, or both. This survey covered the year 1911. The results were published in the *PENNSYLVANIA MEDICAL JOURNAL* for April, 1912.

Approximately 10 years (1923) later a similar survey was made and published in the same journal (then the *Atlantic Medical Journal*) in September, 1924. This showed a very appreciable reduction in the duration of the delay both on the part of the patient and the physician first consulted. Further details of the study at this time may be found in the *Atlantic Medical Journal*, September, 1924.

At the end of another 10 years, 1933, an exactly similar survey was made using the same blanks and studying them in exactly the same way.

Before discussing the statistical data there are a few points of special interest. First, and most striking, there has been a very great improvement among hospital staffs in the interest and willingness to coöperate in cancer studies. In 1911, it was only with great difficulty that data were finally collected from the entire State for

a year, on only 398 cases. In 1933 it was easy to collect data on 1588 cases. The latter number, therefore, represents the base line of the present study.

Also, in 1933, the number of hospitals contributing data was much larger. The names of these hospitals¹ indicate a State-wide distribution

1. Hospitals contributing reports on cancer from State of Pennsylvania:

Abington Memorial Hospital, Abington.
A. C. Milliken Hospital, Pottsville.
Allentown State Hospital, Allentown.
Beaver Valley General Hospital, New Brighton.
Bloomsburg Hospital, Bloomsburg.
Braddock General Hospital, Braddock.
Canonsburg Hospital, Canonsburg.
Carlisle Hospital, Carlisle.
Chambersburg Hospital, Chambersburg.
Christian H. Buhl Hospital, Sharon.
Clearfield Hospital, Clearfield.
Columbia Hospital, Wilkensburg.
Conemaugh Valley Memorial Hospital, Johnstown.
Delaware County Hospital, Drexel Hill.
Elizabeth Steele Magee Hospital, Pittsburgh.
Elk County General Hospital, Ridgway.
Frankford Hospital, Philadelphia.
Geisinger Memorial Hospital, Danville.
Germantown Hospital, Philadelphia.
Good Samaritan Hospital, Lebanon.
Hahnemann Hospital, Philadelphia.
Hahnemann Hospital, Scranton.
Hamot Hospital, Erie.
Harrisburg Hospital, Harrisburg.
Hazleton State Hospital, Hazleton.
Homeopathic Hospital, Pittsburgh.
Hospital of the Graduate School of Medicine, Philadelphia.
Hospital of the Woman's Medical College of Pennsylvania, Philadelphia.
Indiana Hospital, Indiana.
J. C. Blair Memorial Hospital, Huntingdon.
Jefferson Hospital, Philadelphia.
Joseph Price Memorial Hospital, Philadelphia.
Lankenau Hospital, Philadelphia.
Latrobe Hospital, Latrobe.
Lewistown Hospital, Lewistown.
McKeesport Hospital, McKeesport.
Memorial Hospital, Johnstown.
Memorial Hospital, Monongahela.
Mercy Hospital, Altoona.
Mercy Hospital, Pittsburgh.
Mercy Hospital, Scranton.

* Report of the Commission on Cancer, The Medical Society of the State of Pennsylvania, 1933. Supplement No. 1.

† Chairman.

covering hospitals of different types and show that the data covered a satisfactory and representative cross section.

The causes for delay on the patient's part are about as in previous years: Ignorance of the seriousness of early symptoms is most common; fear is next. In 1933 the reason for the patient's delay is frequently given as "lack of money."

The delay attributable to physicians shows a gratifying improvement in most sites of cancer. There is, however, still frequent regrettable delay to be attributed, first, to temporizing with local treatments in skin cancer; second, to attribute irregular uterine bleeding to the menopause and failure to make a digital and speculum examination of the cervix; and, third, complacency in accepting the patient's own diagnosis of "piles" and prescribing ointments, *etc.*, without adequate local examination.

Thus, in 93 skin cancers various local medications were first tried in 13 per cent.

In 332 uterus cancer cases, the physician first appealed to made no local examination in 7.5 per cent.

In 102 rectal cancers the physician first appealed to made no local examination in 12 per cent. In an additional 13 per cent of the cases the first physician even after a local examination treated the patient for piles, constipation, *etc.*

The complete data collected in 1933 are summarized in Table I. This is a counterpart of the Tables for 1911 and 1923 (*Atlantic Medical Journal*, September, 1924). The Tables for 1911 and 1923 have not been repeated as it would make this report cumbersome.

To save the reader the necessity of studying elaborate tables in order to learn the results, a

consolidated table (No. II) has been prepared, which compares only the total period of delay by the patient and the total delay by the doctor. A fairly cursory review of Table II will show that for cancer in most situations there has been a very satisfactory improvement in the delay in the successive years covered by the surveys.

TABLE I. *Part I.—Showing Data in Cases of Superficial Cancer at Time of Applying for Operation*

Site	Total number	Average age	Per cent operable	Per cent showing pre-cancerous chronic irritation	*Average time lost after first cancer symptoms	*Average time lost between first consulting physician and operation
Eye	10	53.5	90	40	6.6	2.4
Lip	16	63.8	53	31	15.7	2.9
Tongue	17	59.9	29	29	8.6	4.6
Mouth	22	63.6	50	36	5.9	1.8
Jaw	13	57.1	38	46	6.3	3.8
Neck	18	50.5	50	11	7.1	1.5
Skin	93	60.0	81	43	16.8	4.7
Breast	300	52.5	80	20	8.0	2.5
Parotid	5	47.0	75	0	10.4	1.7
Testicle	12	45.2	67	0	26.1	8.5
Miscellaneous	32	57.5	50	22	14.6	7.9
Total	538	....	..	..	....	....
Averages .	...	55.5	60	25	11.5	3.8

* Time expressed in months.

TABLE I. *Part II.—Showing Data in Cases of Deep Cancer at Time of Applying for Operation*

Site	Total number	Average age	Per cent operable	Per cent showing pre-cancerous chronic irritation	*Average time lost after first cancer symptoms	*Average time lost between first consulting physician and operation
Stomach	143	56.2	15	23	6.0	2.7
Gallbladder ..	14	64.4	14	36	4.2	1.2
Rectum	102	57.1	52	27	7.3	4.2
Liver	17	57.4	0	12	3.4	1.1
Kidney	12	42.2	83	0	4.7	0.9
Pancreas	33	58.5	9	12	3.0	2.2
Intestines ...	124	56.0	49	10	5.5	2.5
Cervix	240	48.2	37	59	7.6	2.3
Uterus	92	53.9	55	41	10.1	3.0
Ovaries	41	50.4	51	24	6.3	1.8
Vagina	13	56.9	77	46	8.5	1.5
Bladder and prostate ...	99	63.4	57	24	5.0	2.3
Esophagus ..	30	58.5	0	10	4.3	2.9
Larynx	21	55.0	24	14	7.5	3.6
Lungs	12	53.4	0	17	6.2	2.1
Thyroid	11	54.9	27	18	4.2	0.6
Miscellaneous	46	44.9	18	9	5.2	2.6
Total	1050	....	..	..	....	....
Averages .	.....	54.8	38	27	5.8	2.2

* Time expressed in months.

Montefiore Hospital, Pittsburgh.
 Moses Taylor Hospital, Scranton.
 Nanticoke State Hospital, Nanticoke.
 Nesbitt Memorial Hospital, Kingston.
 Northern Liberties Hospital, Philadelphia.
 Palmerton Hospital, Palmerton.
 Pennsylvania Hospital, Philadelphia.
 Philadelphia General Hospital, Philadelphia.
 Pittston Hospital, Pittston.
 Pottstown Homeopathic Hospital, Pottstown.
 Pottsville Hospital, Pottsville.
 Presbyterian Hospital, Philadelphia.
 Reading Hospital, Reading.
 Robert Packer Hospital, Sayre.
 Sacred Heart Hospital, Allentown.
 Scranton State Hospital, Scranton.
 Sewickley Valley Hospital, Sewickley.
 Shamokin State Hospital, Shamokin.
 Spencer Hospital, Meadville.
 Stetson Hospital, Philadelphia.
 St. Francis Hospital, Pittsburgh.
 St. Joseph's Hospital, Carbondale.
 St. Luke's Hospital, Bethlehem.
 St. Margaret's Memorial Hospital, Pittsburgh.
 St. Vincent's Hospital, Erie.
 Suburban General Hospital, Bellevue.
 Taylor Hospital, Ridley Park.
 Temple University Hospital, Philadelphia.
 Western Pennsylvania Hospital, Pittsburgh.
 Westmoreland Hospital, Greensburg.
 West Side Hospital, Scranton.
 Wilkes-Barre General Hospital, Wilkes-Barre.
 Williamsport Hospital, Williamsport.
 Woman's Hospital of Philadelphia, Philadelphia.
 Wyoming Valley Homeopathic, Wilkes-Barre.
 University of Pennsylvania Hospital, Philadelphia.

TABLE II. *Part I.—Showing Delay of Patients and Physicians in Cases of Superficial Cancer*

Site	*Time lost after first symptoms noted by patient			*Time lost after first consulting physician and operation		
	1911	1923	1933	1911	1923	1933
Face	36.0	32.0	....	28.0	5.0	....
Lip	21.0	24.0	15.7	12.0	9.0	2.9
Tongue	8.0	17.0	8.6	....	1.0	4.6
Mouth	20.0	10.0	5.6	....	4.0	1.8
Jaw	10.0	7.0	6.3	8.0	3.0	3.8
Neck	29.0	8.5	7.1	24.0	5.0	1.5
Skin	39.0	15.0	16.8	30.0	2.5	4.7
Arm and hand	33.0	26.0	....	....	11.0	....
Breast	18.0	12.0	8.0	9.0	3.3	2.5
Parotid	12.0	4.0	10.4	....	1.0	1.8
Penis	15.0	12.0	....	12.0	10.0	....
Testicle	7.0	21.0	26.1	3.0	1.0	8.5
Eye .....	....	....	6.6	....	....	2.4
Miscellaneous .....	....	11.0	14.6	....	3.0	7.9
Averages .	20.7	15.3	11.4	15.7	4.5	3.8

* Time expressed in months.

TABLE II. *Part II.—Showing Delay of Patients and Physicians in Cases of Deep Cancer*

Site	*Time lost after first symptoms noted by patient			*Time lost after first consulting physician and operation		
	1911	1923	1933	1911	1923	1933
Stomach	17.0	8.0	6.0	16.0	4.0	2.7
Gallbladder	3.0	8.0	4.2	....	3.3	1.2
Rectum	13.0	8.6	7.3	10.0	3.2	4.2
Liver	14.0	6.6	3.4	3.0	3.5	1.1
Pancreas	20.0	4.0	3.0	20.0	2.4	2.2
Kidney .....	....	....	4.7	....	....	0.9
Intestines	16.0	10.8	5.5	13.0	3.6	2.5
Cervix	12.0	7.6	7.6	8.0	1.7	2.3
Uterus	19.0	10.0	10.1	5.0	3.0	3.0
Ovary	6.0	5.0	6.3	6.0	2.0	1.8
Vagina	4.0	7.4	8.5	2.0	1.1	1.5
Bladder and prostate	16.0	10.0	5.0	5.0	7.2	2.3
Esophagus .....	....	7.4	4.3	....	4.0	2.9
Larynx .....	....	16.0	7.5	....	5.7	3.6
Lungs .....	....	....	6.2	....	....	2.1
Thyroid .....	....	....	4.2	....	....	0.6
Miscellaneous .....	....	15.0	5.2	....	13.0	2.6
Averages .	12.7	8.9	5.8	8.7	4.1	2.2

* Time expressed in months.

A further consolidation is shown in Table III which gives the average delay in each year for the general groups of superficial and deep cancers regardless of the organ involved.

Table III, which is the focused answer to the question indicated in the title of this report, should be considered very satisfactory and encouraging. To combine the figures from both superficial and deep cancers; *i. e.*, all cancers, the figures indicating the total patient's delay has in 22 years dropped from 16.7 months in 1911 to 8.1 months in 1933. That is, the patient's delay has been cut in half. The doctor's delay

TABLE III.—Average Delay in Months: (1) After the First Symptom Noted by the Patient; (2) After the First Visit to the Physician

	*Total time lost by the patient			*Total time lost after first visit to physician		
	1911	1923	1933	1911	1923	1933
Superficial cancers ...	20.7	15.3	11.4	15.7	4.5	3.8
Deep cancers	12.7	8.9	5.8	8.7	4.1	2.2

* Time expressed in months.

has been reduced from 12.2 months in 1911 to 3.0 months in 1933, a cut of three-quarters.

The Commission is not for a moment assuming entire or even much credit for this most satisfactory improvement. The American Society for the Control of Cancer, the Philadelphia Committee under George E. Pfahler, and many independent workers have done much. The co-operation of the general medical profession has done much and the increase in interest in all health matters on the part of the lay public has been a factor.

It has seemed useful to prepare a chart to study those regions such as skin, lip, breast, *etc.*, in which it would seem that cancer education both lay and medical should have the best chance for satisfactory results. In Chart I the picture is shown for lip, skin, breast, stomach, rectum, cervix of uterus, and body of uterus. In addition, the entire superficial and the entire deep sites have been grouped and averaged. For each item 3 columns have been made showing the conditions in 1911, 1923, and 1933. The total height of the column indicates the total delay; the lower clear block indicates the delay after the physician had been consulted; the upper black block indicates the delay on the part of the patient. The sum of the 2 blocks as stated indicates the total time elapsing between the recognition of the first symptom by the patient and the inception of surgical or radiation treatment.

This shows at a glance a most satisfactory improvement in each succeeding 10-year period in most sites. Especially, it shows in a dramatic way what is, perhaps, the most significant item, namely, the improvement in the superficial and deep cancers as grouped together.

This Commission is aware that this material does not represent mathematical accuracy. It is subject to all the difficulties of medical statistics of almost any type, especially if the basic data consist of blanks filled out by many different observers. Doubtful material has been eliminated as far as possible and we do feel that this material fairly accurately represents the practical picture for the years mentioned and accurately

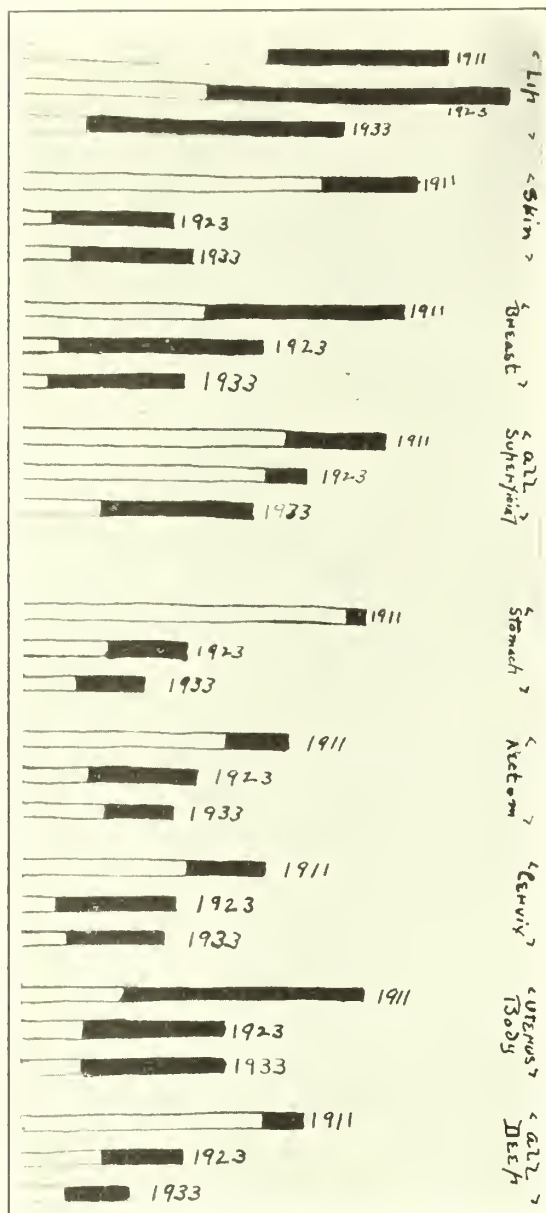


CHART 1.—Showing the conditions in each of the 3 surveys for a few special sites. Each site is shown by 3 columns for the respective years 1911, 1923, and 1933. The black portion of the column indicates the patient's delay between first noticing warning symptoms and applying to a physician. The clear portion indicates the "physician's delay" that is the time from the first visit to the physician and the beginning of radical treatment. The fourth group of 3 columns is the average in each year for all superficial cancers. The last group is the average for all deep cancers. The significance of this chart is further discussed in the text.

indicates a definite trend and, with fair accuracy, the rate of this trend.

Not every item, however, has shown the same satisfactory condition. Three situations call for special comment, *viz.*, skin, rectum, and uterus.

SKIN

In skin cancer, 1923 and 1933 both showed a marked improvement over 1911. Nevertheless, in 1933, the delay on the part of both the phy-

sician and the patient was greater than 10 years before. The delay attributable to the patient has been practically the same. The reason is probably that in spite of what the patient may have seen or read—he or she probably in advanced life (average age at onset, 60) has had many skin conditions of various kinds which have ultimately disappeared and it is, perhaps, pardonable to suppose that the last one will disappear. A patient rarely has personal experience with a gross lesion elsewhere that has gone away of itself. This form of inertia has been difficult to overcome.

Considerable responsibility for the increased delay in skin cancer seems to be fairly attributable to the physicians. There is still evident an unfortunate temptation to the physician to temporize unduly long with local applications. Furthermore, indications are that occasionally even the dermatologists temporize too long.

It seems necessary to add greater emphasis on skin cancer in all public education, and also it would be of great value if the dermatologists themselves would put on a special campaign in their own meetings and in their own journals.

RECTUM

There has been a consistent improvement in the total delay but, as in the skin cases, the delay attributable to physicians has been greater in 1933 than in 1923. Mr. Ernest Miles, of England, has said: "The physician who sits at his desk and allows himself to be convinced of his patient's own diagnosis of piles and who without a digital examination, or if necessary a sigmoidoscopic examination (the long finger with the human eye), writes for his patient an order for pile ointment is frequently signing a death warrant instead of a prescription blank. So, in lay education it seems necessary to concentrate further on the rectum and it may be well to ask the proctologists to put on a special campaign along with the dermatologists."

UTERUS

Here again is an unsatisfactory situation. Both later years are better than 1911 but the figures for 1923 and 1933 are practically identical both for the patient's and the doctor's delay. So far as this site is concerned there is no indication of improvement in the past 10 years. It would appear that a large part of the explanation of this lies in the great difficulty in making a woman realize that irregular vaginal bleeding at age 40 or over is not "due to the change of life." This is an idea in women's minds that is very difficult to change. Unfortunately, too frequently she convinces her physician of this view.

So, in this site again we need a more concentrated effort on lay education. The plan suggested by Bloodgood of trying to induce every woman to submit to regular periodic examinations after childbearing would have a great effect. Here, too, we must ask help from obstetricians and gynecologists.

SUMMARY

1. This survey indicates that whatever the causes there has been a great improvement in diminishing the delay in radical treatment of cancer both on the part of the laity and the medical profession.

2. The delay from cancers in all sites has diminished about one-half as concerns the laity; about three-quarters as concerns the medical profession.

3. An unsatisfactory condition still maintains in cancer of the (a) lip and skin, (b) rectum,

and (c) uterus. More concentrated efforts must be made for these sites, and we must ask for more active and better organized help from dermatologists, proctologists, obstetricians, and gynecologists.

4. It is felt that the material herewith set forth very definitely answers in the affirmative the question, "Is Cancer Education Effective?"

Commission on Cancer, The Medical Society of the State of Pennsylvania, 1933:

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THE MEDICAL PROFESSION MEETS A CRISIS*

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It is almost impossible for a physician, particularly one representing medical organization, to discuss the subject, "The Medical Profession Meets a Crisis," without seeming to transcend the bounds of modesty. Consequently, an effort will be made to confine my remarks to a recital of facts, leaving the interpretation to you.

The theme of this particular session of the conference is centered around the Emergency Child Health Program and Medical Relief.

These endeavors are representative of the desire of the medical profession of this State to meet a crisis. From a chronologic point of view, however, I should like to call attention to the fact that this crisis did not occur spontaneously. Ever since 1930 the situation has been developing, gradually and almost imperceptibly at times. The Emergency Child Health Program and that of Medical Relief are of comparatively recent origin. The following efforts preceded these activities.

For three years the medical profession rendered medical care to the increasing number of those unable to pay for it. This service was rendered in the traditional manner; that is, by the absorption of these additional free patients in private practice and by the extension of free dispensary service. It is probably needless to

reiterate here, incidentally, that physicians serving in free wards of hospitals and in free clinics do not receive remuneration for the work they do. There is so much misunderstanding on this point, however, that relentless repetition seems justified.

Conservatively figured, the contribution of free medical service by the physicians of Allegheny County approximated 2,408,978 contacts during 1931—a nonepidemic year. That averaged 1330 contacts for every physician; this figure is conservative. In private practice, only cases definitely recognized as charitable were included; poor credit risks were not considered. One large hospital for which no report was received was necessarily omitted from the computation. Only one contact was counted for each day a patient remained hospitalized when, as a matter of fact, patients seriously ill were often seen several times daily. Included as single contacts were major operations and obstetric cases.

The following quotation is from an editorial in the *Pittsburgh Sun-Telegraph* regarding this situation:

So much has been heard in late years about the high cost of medical attention that it is important and gratifying to learn something about the other side of the question . . . that concerning the amount of free medical service in Allegheny County. If the commercial value of this free service were to be reckoned it would constitute a philanthropy so huge that the gifts of some of our well-known welfare organizations, in comparison,

* Read before the Annual Meeting of the Tenth Councilor District of The Medical Society of the State of Pennsylvania, held at Greensburg, May 3, 1934.

† Trustee and District Councilor.

would pale into insignificance. The public owes the doctors a debt of gratitude. Theirs is a philanthropy which attracts little attention, and which on that very account merits more appreciation than it receives.

Enormous as this philanthropy was, however, it was not the desire of the Allegheny County Medical Society nor of any of its individual members to decrease the amount of free medical care rendered to those unable to pay. As a matter of fact, 3 new clinics were opened during 1932 under the joint auspices of the Allegheny County Medical Society and the General Health Council. To illustrate the service rendered in this way, let us look for a moment at a report of the work done at the clinic established at both branches of the Association for the Improvement of the Poor. To Jan. 1, 1934, there were 5548 examinations made and 2532 treatments given. The emphasis in this work is obviously on prevention. Hence the large number of examinations and the relatively smaller number of treatments. Besides the treatment of persons acutely ill, every new applicant is given a physical examination so that those with infectious diseases may be isolated.

It should be noted in this connection that the purpose of this medical service is twofold: To preserve the health of the men by adequate medical care; and to safeguard the health of the community by protecting the populace from the onset of an epidemic.

One year prior to the time this arrangement was effected, the Association had 72 deaths among its lodgers. Last year there were 6 deaths; this year, 4. Let these facts speak for themselves.

The objects of the General Health Council are to coördinate and to promote public health activities of public and private agencies in Allegheny County; to serve as a forum for frank discussions of health problems, policies, and plans; to develop new and to improve present standards of service, and to foster the development and maintenance of a bureau of authoritative health information for educational purposes. The objects and activities of the General Health Council were considered of such merit by the Community Fund that it was admitted as a participating member agency of the Fund beginning Jan. 1, 1934. From the time of its inception in 1930 until this year it was financed entirely by the Allegheny County Medical Society—another somewhat different instance in which the organized medical profession met a crisis.

To return to the question of medical service: By 1933 the number of applicants for free med-

ical service at the dispensaries of Allegheny County had increased to such an extent that adequate care for all was extremely difficult. Since it was the desire of the members of the Allegheny County Medical Society to keep services to the needy sick on the highest possible plane, the Society on May 31, 1933, adopted a plan to accomplish this purpose. This plan, briefly stated, calls for the reference of patients to private physicians rather than to already overburdened dispensaries. If the patient is unable to pay for medical service, the physician is to render it gratuitously. If the patient's financial status warrants reduced fees or deferred payments, satisfactory arrangements are accordingly made. If, however, the nature of the case is such that dispensary treatment is advisable, the physician may refer the patient to a dispensary in writing. A recent survey disclosed that 98 per cent of the members of the Allegheny County Medical Society are coöperating.

This plan improved the situation considerably, but there was still one type of case in the proper care of which marked difficulty was still experienced; the maternity case. Consequently, upon the initiative of its Public Relations Auxiliary Committee on Maternal Care, the Allegheny County Medical Society approved of a plan to alleviate this difficulty and presented the plan to the Council of the City of Pittsburgh. The City Council approved the plan and passed an ordinance which took effect on Aug. 18, 1933. Briefly stated, the plan provided for complete obstetric care for maternity patients on relief at a fee of \$25 per case. The medical service rendered must be approved by the Public Relations Auxiliary Committee on Maternal Care before payment is authorized.

By a series of successive steps, the medical profession of Allegheny County met the problems of medical service as they arose: (1) By absorption of an increasing amount of charitable work in private practice and by the extension of free dispensary service; (2) by the adoption of a dispensary plan designed to care more adequately for the needy sick; (3) by the inauguration of a plan for maternal care. Except in the latter instance this was all done without hope of remuneration. What was done in Allegheny County is merely typical of similar endeavors throughout the State. Each of the 60 County Medical Societies solved its own problems in a manner best suited to the needs of the locality. By this united effort the medical profession of the entire State of Pennsylvania rendered an adequate service.

On July 27, 1933, however, the Board of

Trustees of The Medical Society of the State of Pennsylvania unanimously adopted the following resolution:

WHEREAS, Public or Federal funds are now available for the payment of medical attendance and medical supplies for those families that are receiving emergency relief, and

WHEREAS, Under these circumstances physicians rendering free service to the indigent receiving help under emergency relief are therefore actually contributing their charitable services to the taxpayers, and

WHEREAS, This belated recognition of community responsibility for paying for medical services as well as for food and clothing for the needy unemployed comes after 2 years of service, contributed without thought of remuneration by a great majority of the 8000 members of The Medical Society of the State of Pennsylvania; therefore, be it

Resolved, That the Board of Trustees of The Medical Society of the State of Pennsylvania advise its component county medical societies to consider carefully a change in the above policy whereby each county society will take the steps necessary to confer with the county emergency relief board on the development of plans whereby the physician chosen by the approved recipient of other forms of emergency relief may be reimbursed on a fee basis for services rendered as well as upon a cost basis for medicines, supplies, and travel expense incidental to such service. To this end the county medical society should offer the services of a committee properly authorized to discuss with the aforesaid emergency relief committee all the problems concerning medical care to the indigent, including:

(a) The reasonableness of any charge rendered for medical services.

(b) To investigate complaints made with regard to quality of medical services.

(c) Any proposed change in policy with regard to provision of medical care.

(d) Principles to be followed in the allocation of cases to physicians.

Payment for medical relief was inaugurated in Pennsylvania on Dec. 1, 1933. In the beginning, relief workers were amazed at the number of medical orders being issued. Perhaps some were given to persons not really ill. The administration of the plan in so far as the issuance of medical orders is concerned has been reasonably efficient. In other words, the large number of medical orders is simply illustrative of the immensity of the total contribution which was being made by physicians before the medical relief plan was put into effect.

Rarely is so much patience and energy exacted without recompense as is now being required of the active, interested, and conscientious members of the Medical Advisory Committees to the County Relief Boards.

Another crisis was met by the medical profession of the State of Pennsylvania by the Emergency Child Health Program. This great work of conservation and restoration of the health of the children of Pennsylvania as it might be affected by the economic depression

beginning in 1929, had its conception in a Public Meeting held in Washington, D. C., in January, 1933, at which among the speakers on the program were Mrs. Eleanor Roosevelt and Dr. Charles Falkowsky, then president of The Medical Society of the State of Pennsylvania. This was promptly followed by a luncheon meeting at the Executive Mansion in Harrisburg, at which officers of The Medical Society of the State of Pennsylvania were the guests of Governor and Mrs. Pinchot, and at which it was definitely decided that the State Medical Society, under the guidance of Dr. Samuel McC. Hamill of Philadelphia, would accept the challenge implied in the Governor's invitation.

In addressing this meeting, Dr. Walter F. Donaldson, secretary of our State Medical Society, included the following remarks which should be repeated here:

"In the past, misunderstandings regarding the purposes of members of the medical profession in their relations to the health work of the non-medical organizations represented here today may have had their origin in some such sequence of events as the following: Your representatives, years ago, in beginning their work, probably did not proceed very far before the need developed for medical advice. They quite likely turned to the personal or family physician of one of your own officers, who no doubt responded, only to be within a short time under suspicion among some of his fellow-physicians of advancing his own professional reputation by his newly formed association with a lay group. In recent years all necessity for such misunderstandings has been eliminated by the development of active programs, through properly accredited committees of county medical societies, for the sole purpose of extending appropriate medical advice and coöperation to all lay groups throughout the county in any way contacting health and welfare service. I can assure you that if in the future you will turn to the secretary or other representative of the county medical society in your county, you will receive all possible assistance. It is the modernized policy of county medical societies to speak for the majority of the members and to take steps in public service far beyond those approved by the ethics of the medical profession for the private practitioner."

In these various attempts of the medical profession to meet not a crisis but rather a series of crises, there have been misunderstandings. These oftentimes occurred between physicians and social or welfare workers. Doubtless, some of you have had unpleasant experiences with physicians who were not coöperative or whom you

thought were not cooperative. Perhaps the apparent lack of cooperation was due to inadequate information about the point at issue. Perhaps it was not only apparent but real lack of cooperation. Never before has there been greater need

for the medical and sociologic professions to understand each other. I am sure they are in basic agreement, for in no other way could this crisis have been met.

Jenkins Arcade.

STIMULATING INTEREST IN MEETINGS

In all probability interest in medical organization has been stimulated and the profession generally has benefited through the frank and serious discussions which have been held concerning the important problems confronting the profession today. Naturally, conflicting opinions have arisen, but for the most part they have been expressed openly and in a spirit of genuine effort to arrive at conclusions that will be of the greatest benefit to the majority of the profession.

Dr. Charles Fidler, president of the Milwaukee Medical Society, made a pertinent point recently when he declared:

"Divergent opinions are wholesome when openly discussed, but ruinous when clannishly fostered. Most of us, I believe, have similar ideas about the general principles of organized medicine; certainly all of us have the same idea regarding its destiny."

Naturally, to keep the membership actively interested in medical organization and its activities, each county medical society and academy must have an alert and active program committee, intent upon providing educational attractions for each meeting of the society so that interest and activity may be maintained or rejuvenated.

What constitutes a good medical meeting? Here, again opinions differ. However, there are certain general principles which may be followed as a fundamental basis upon which to proceed.

Writing in the *Iowa State Medical Journal*, Dr. D. J. Glomset makes some suggestions along this line which merit consideration. Quoting from his remarks:

"Man is so constituted that he can do better work and enjoy his labor more when he works in groups than as an individual. This is the reason for the existence the world over of a legion of human associations. This is the reason for the existence of organized medicine. However, human groups, like human individuals, are prone to stray away from the straight and narrow path that leadeth to more abundant life. Therefore, it becomes necessary for each member of an association, and especially the officers, to have clearly in mind what the ideal goal for the society really is in order that they may steer the society persistently and consistently on the right course.

"Since our existence as a medical profession is justified only by our success in preventing and curing disease and in the alleviation of suffering from disease, it is obvious that the goal of any medical society is to make its members excellent physicians. This goal may be accomplished by:

"1. Keeping its members abreast of medical progress.

"2. Inspiring them to live up to the high ideals of medicine.

"3. Obtaining for its members the joy of living which comes from the friendships of their colleagues.

"The prime need of keeping its members well informed in medicine is recognized by every association of physicians the world over. Various types of programs are presented to fill this need. Some societies have their programs given by experts from afar. Others resort to

what might be called the 'wheel-horse' method, whereby all programs are presented by the same few members. Still others obtain their scientific programs from as large a percentage of their own members as possible.

"It is generally conceded that the scientific standards of an individual society are highest where the last mentioned variety of program prevails. Real stimulation can after all come only from within the society. A medical society is active to the degree to which each individual member takes an active part in its functioning. Not all members can take an official part in the society's activities, but each one can participate in the program. Medical meetings planned on this basis build for the society and for the individual doctor in the following ways:

"1. A discussion given by any member, whether it deals with his original observations or with his own views on a phase of medicine can never fail to interest and instruct the listeners provided that the individual has put his very best into his theme.

"2. Such a presentation never fails to produce in the minds of the rest of the members the desire to go forth and do likewise.

"3. Any doctor who has done his very best in presenting his subject is himself the greatest beneficiary since such an effort never fails to make him a better physician.

"Religious leaders have always been cognizant of the fact that the zeal and good works of their flocks could be maintained only through constant inspiration of some kind. This applies equally well to medicine. A medical meeting that fails to leave in each member a desire to go forth and become a better doctor is not an ideal meeting.

"Medical meetings might be varied by occasionally inviting a guest speaker of outstanding ability in medicine. These men by their own achievement, by their personality, and by their technic of presentation have a powerful revivifying influence on the society. The excessive use of such talent, however, leads to the stagnation and decay of the society.

"A good medical meeting is the most potent means for the promotion of good fellowship among the individual members of a society. In the stress of life in the professional competition of one's colleagues, irritating traits will occasionally crop out and cause resentment among his professional brethren. It seems to be the easiest thing in the world for the offending brother to make a mountain out of each molehill of this kind to the great detriment not alone of the offender and the offended but to the entire medical profession. Frequent medical meetings, at which each doctor expresses his own medical views and hears and discusses the views of his colleagues, make it impossible for the injustices produced by petty jealousies, small indiscreet acts, and other minor defects to distort the evaluation of a colleague in this way.

"Frequent medical meetings of the type outlined are doing wonders all over the state in uniting the medical profession into one solid body of intelligent, friendly physicians working together and enjoying working together for the benefit of the sick."—*Ohio State M. J.*, March, 1934.

EDITORIALS

GEORGE A. KNOWLES' MEMORIAL FUND

In this number of the JOURNAL appears a request for contributions to the George A. Knowles' Memorial Fund to be found on page 855.

The late Dr. Knowles was a member of the Board of Trustees of The Medical Society of the State of Pennsylvania at the time of his death. For a number of years he served in the House of Delegates of our State Society, and for some time was chairman of the Medical Legislative Committee of Pennsylvania. Dr. Knowles served the medical profession in the State of Pennsylvania most valiantly. At the time of his death he was also assistant director of health of the City of Philadelphia.

THE CANADIAN QUINTUPLETS

The Dionne quintuplets have attracted world-wide attention *via* the news press, and the news reel. So seldom does such a state of affairs occur so close to home that naturally we are all "het up" about it.

The following data abstracted from an article devoted to the quintuplets by the Canadian Press, will be of interest to our readers.

The occurrence is attributed to a biological abnormality, rather than heredity. The mother is age 24, and the father is age 31.

After the birth of each of six other children Mrs. Dionne was up and about her work in 3 days indicative of her hardihood. Five of these older children are living. Even after her life was threatened by complications attendant on the birth of the quintuplets she was able to leave her bed after 11 days.

The attending physician, Dr. Dafoe, revealed that two of the quintuplets, the fourth and fifth to be born, were delivered with amniotic sacs intact, and the fetuses freely moving.

The pregnant condition was made known to the physician one week before the births and a visit was paid the expectant mother who was seven months' pregnant. The amount of fluid present made it impossible to determine whether there was more than one fetus. Nephritic toxemia was present.

The physician was called at 4 o'clock in the morning of May 28, 1934, and when he arrived 2 children had been born and a third was being

delivered. The fourth and fifth children, in the amniotic sacs, were delivered by him.

Mrs. Dionne had a postpartum hemorrhage and, assisted only by a practical nurse, the physician carried out the usual treatment and cared for the infants.

He baptized the children. Although a non-Catholic, he observed the tenets of the Roman Catholic Church regarding the administration of baptism to the newborn.

The physician emphasizes there was only one placenta. In the confusion existing after the birth of the 5 children, the placenta was not preserved.

QUO VADIS PSYCHIATRY?

For many years psychiatry could hardly be called a segment of medicine. During the World War its identification was very definitely made and today, more than twenty years later, it is being regarded in certain areas as not only a segment of medicine, but sufficiently large as to ramify the entire medical structure. All of which leads one to ask if Salmon's little Cinderella of medicine is going to grow up to be the big bold wolf in the medical world.

Be that as it may, psychiatry has made tremendous strides, so tremendous, indeed, that the time has arrived for a proper evaluation of itself. In other words, it is time for psychiatry to integrate its experiences into a definite whole with definite purposes and objectives. The ballyhoo days are over and psychiatric orientation seems in order.

Much of the transition from meekness and purity to wolfish aggressiveness is no fault of psychiatry, *per se*, but caused more by its too ardent enthusiasts. As a result, we are led to believe that understanding oneself, adaptation, readaptation, perfect repression, transference, sublimation, and proper training in childhood, under the guidance of psychiatry, makes the superman.

Now medicine is an integrated unit, even though it has been subdivided into many segments, such as surgery, medicine, pediatrics, *etc.*, peace has always fairly well reigned in its house until a new baby (a specialty) was born. A good mother, she made peace with the children by taking from herself and elder brothers sufficient matter to identify the newborn baby specialty. When it comes to psychiatry, how-

ever, she is having difficulty in giving it its proper place. Is it possible that psychiatry complicates matters by being a rather selfish child with egotistic trends? Does he desire a larger place in general medicine, even at the expense of other specialities, such as pediatrics, *etc.*? Is he already forcing neurology from its long honored position of the past?

It is hard to speculate as to the outcome of all these things at the present time. There is no doubt, however, that peace eventually will follow, provided true psychiatrists interested in this speciality will from time to time ask themselves "Which Way Psychiatry?"

NEED FOR WOMEN DOCTORS

According to *The Philadelphia Record*, Dr. Joseph C. Bloodgood, of Baltimore, in an address before the Goucher College students, in a plea for the need of more women in the practice of medicine, is quoted as follows:

Woman was once considered an inferior, but now that we've educated her she may prove a superior being.

I feel confident that we need, in all the civilized countries, a larger number of women fundamentally trained in the medical sciences, not only as practitioners of medicine in the specialties and general practice, but in laboratory positions, research work, and in public health.

Women have a maternal instinct that naturally makes them better fitted for preventive medicine.

My experience teaches me that women are taking to preventive medicine quicker than men. The greatest protection against disease today is the continuous care of the medical and dental profession, and we need more of the best-trained women physicians to take their place in this preventive effort.

We wonder what was the reaction of the intelligentsia at Goucher to the statement "now that we've educated her she may prove a superior being." Dr. Bloodgood

Certainly dars't
To beard the lioness in her den,
In Goucher Hall.

(With apology to Scott's *Marmion*.)

CLEANING THE STREETS

As one passes through some of the towns and cities of Pennsylvania there may be noted here and there some improvement in the sanitary condition of the streets. It would seem, however, in some communities there is still plenty of work ahead to be done.

There is needed a more efficient cleansing of the streets and improvement in the procedure of eliminating the litter problem. Then, too, there is the need for the proper collection of the waste and garbage. In some of the large centers there are scavengers who go through the sec-

tions at night where waste has been put out on the curb for collection the next morning. They dump the contents of the containers on the sidewalk and street, gather what they consider of value for disposal as junk, and leave behind streets that would seem to have been recently through the fury of a wind storm. All this litter must be gathered and disposed of; but, best of all, it can be obviated by proper restriction of the Police Department and the Health Department.

To accomplish the desired results it will be necessary to bring about the coöperation between the various departments of the community administration. What is very important, too, will be the need to make the people realize that they, too, have a most important and serious duty in the matter of keeping the streets of their community in decent condition.

The respective county medical society could well afford to take the leadership in this matter, aided by the woman's auxiliary. The New York Academy of Medicine has a committee of twenty on street and outdoor cleanliness, that has definite plans for future activities in keeping clean the streets of New York City.

ANTENATAL DIAGNOSIS

By antenatal diagnosis is understood the recognition and the separation one from another of all the pathologic conditions which are produced during antenatal life, not only while that period of existence is in progress, but also while the child is being passed through the vagina during labor, and after it has been delivered. The birth of a diseased, malformed, or dead child does not remove the necessity for a diagnosis of its particular disease or malformation, and if dead, the cause of death should be carefully studied. It is much easier to make a diagnosis after birth, but with the decrease in difficulty has come decrease in value, and the chance of successful treatment may have passed. Though the facilities for diagnosing morbid states while the child is yet in utero are few and the difficulties many, yet the obstacles are not insuperable. Full use is not being made of the means of clinical investigation in antenatal diagnosis. It may be urged that women would be unwilling to submit to thorough and repeated examinations; but for this state of affairs the medical profession are largely responsible, not having laid stress upon the value of such procedures. If a sensible woman were convinced that it was for her welfare and that of her unborn child to submit to such thorough examinations, few would refuse

or even hesitate. Antenatal diagnosis includes the discovery of normal pregnancy, of plural pregnancy, of fetal death, diseases and monstrosities of the fetus, hydramnios and morbid conditions of the placenta. A complete physical examination should be made of the maternal organs, especially of the abdominal viscera; the maternal urine and blood should be subjected to chemical and microscopical examination, as it is realized that the condition of the fetus in utero is to some extent reflected in the composition and character of the maternal excretions. The fetus should be fully examined by the hands, the ear, the cephalometer, roentgen rays, and by any other means of exact research that may yet be invented. The previous medical history of the mother, both general and sexual, must be studied, for certain circumstances must be regarded as commonly preceding morbid conditions in pregnancy. The past history and present state of the father, and the family history on both sides should be studied, for certain fetal diseases and embryonic deformities appear to be hereditarily transmitted; and last, the maternal symptomatology during the pregnancy in progress should be carefully watched.

Too little attention has been given to the history of the paternal side, except in the case of syphilis, but there are other diseases, nephritis, diabetes, tuberculosis, malaria, lead poisoning, mental disorders, which may have a direct and injurious effect upon the offspring. The effect of paternal alcoholism has not been fully worked out, but Sullivan has demonstrated that total abstinence on the part of the father did little, if anything, to improve the prospects of the unborn infant so long as there was maternal alcoholism. Nicloux has shown experimentally that alcohol given to the mother animal and the parturient woman quickly finds its way in startlingly large amounts to the fetus in utero; while Sullivan's statistics show that habitual inebriates among women give birth to a very high percentage of dead or diseased infants.

Although it is true that delicate, diseased women sometimes give birth to healthy infants, and perfectly healthy mothers produce deformed and diseased children, yet these are but exceptions that prove the rule that the mother's health insures the health of the child. Very old or very young primiparae are apt to have less healthy children and more difficult labors. The history of previous pregnancies is of importance, for there is a tendency in abnormalities to repeat; not that a given fetal disease or embryonic monstrosity will occur several times in succession in the same patient (although this is sometimes the

case), but pregnancies that are pathogenic, though not in the same way, are apt to be repeated. So well is this known that the terms "habitual abortion," "habitual fetal death," etc., are in common use.

In the family history of morbidparous and monstriparous mothers (for by these terms we may indicate a tendency to produce diseased, dead, or deformed children), there is often a marked morbid predisposition to various diseases developed postnatally, but in all probability present potentially antenatally; in this group the neuroses are prominent.

PRINCES OF MEDICINE

The Golden Membership Anniversary Reception and Dinner tendered on May 24, to the eight men (Bartley, Browning, Cochran, Gildersleeve, MacEvitt, Moitrier, Pilcher, and West) who have been members of the Kings County (Brooklyn) Medical Society for 50 consecutive years was a fine gesture of affection and honor.

These 8 men represent, in the aggregate, a record of personal worth, character, and professional service that is as splendid as it is vast.

Such men, as we view them, against the contemporary background, are not in any narrow sense the product of their period. That would be a bourgeois judgment, worthy of Mencken's smug rotarian world. It would be doing them an injustice to say so. They are civilized men and aristocrats who have pursued a highminded course despite the machine era in which they have flourished, an era characterized by ruthless industrial exploitation, predatory finance, capitalism, unconscionable commercial piracy, moral bankruptcy and hypocrisy, political corruption, rampant crime, cheap ballyhoo, a debased press, a nearly sterile art and culture and parochial vision; an era in which war has been an ethical pursuit, in which the most vicious distribution of wealth has been rationalized by regimented moralists, publicists and academicians, and in which poverty and despair, and much of disease, have been respectably institutionalized; an era in which preparedness for war has been a sacred duty but in which no artillery has been powerful enough to be trained against insatiable tenements at our very doors.

Like Marcus Aurelius in the darkness of a Roman era, each one of these princes of the kingdom of medicine has lived up to the great traditional principles of his profession while he adjusted himself to a sick society and achieved the miracle of his life.—*Editorial, Medical Times and Long Island Medical Journal, June, 1934.*

Insurance Against Twins

When the stork commenced hovering over the roof-tree of Harry Clinton, San Jose, California, automobile salesman, he called in the family doctor, who mentioned casually that twins are born in one out of every 89 births. On pins and needles over the prospect of a double addition to his family at one time, the Californian decided to send an appeal for protection to Lloyds, London insurance organization.

Willing to take a chance on almost anything, Lloyds have agreed to bet \$1000, for a premium of \$50, that Mrs. Clinton will not be the mother of twins next September.

Meanwhile, Mr. Clinton may well hope that he will have the luck which befell W. V. Dumbreck, of Hadlow, Kent, England, who, in August, 1926, took out a similar policy with Lloyds and collected £1000 in February of the next year.—*Literary Digest*, May 12, 1934.

Purgation

To quote from an article in *Time*, May 14:

Two doses of castor oil gravely injured a U. S. Army doctor's career last week. A lieutenant colonel ordered an oil purge for an enlisted man with an injured foot. Another soldier suffering from appendicitis received a similar dose. Seriously injudicious were those purgings, decided a board of Army officers who court-martialed the lieutenant colonel and ordered his promotion to a colonelcy, when due, delayed a full year.

Important thesis of a meeting of stomach-and-intestines' specialists in Atlantic City was a warning against the dangers of purgation. Cried Dr. J. Russell Verbrycke, Jr., of Washington: "The radio ballyhooing of purgatives disguised and camouflaged under fancy names will increase the number of perforated appendices."

Raptly his gastro-enterological associates listened to an injunction often enunciated, but seldom heeded: "Never take a physic when there is abdominal pain that could possibly be appendicitis."

Seven Plans to Curb Toll of Auto Deaths

To quote an article published in a recent issue of the *United States News*:

Legislative measures to curb the rising toll of deaths from highway accidents which during the past 10 years have caused 273,112 fatalities, were approved by the fourth session of the National Conference on Street and Highway Safety, held in Washington May 23 to 25.

Seven principal proposals to be submitted to the legislative bodies for enactment were considered by the Conference, called by Secretary of Commerce Daniel C. Roper, as follows:

Model motor vehicle administration, registration and certificate of title and anti-theft act.

Uniform act regulating traffic on highways.

Civil liability act, covering liability of owners of public vehicles and methods of procedure in cases of liability.

Manual of uniform traffic control devices.

Model operators' and chauffeurs' license act, providing for general drivers' examinations and the licensing of all operators of motor vehicles.

Model municipal traffic ordinance, to cover city traffic regulations over the entire country.

Safety responsibility act, to require persons guilty of traffic violations or involved in accidents to give tangible assurance that they can meet damage costs in cases of injury or property damage.

Interesting "Welfare" Point of View

At a recent meeting in Columbus (Ohio) of social workers interested primarily in child welfare activities and in the administration of mothers' pensions, it was proposed that state and local relief officials be requested to seek from the federal government money to supplement local funds appropriated annually for such activities.

There was a distinct difference of opinion among those attending the conference relative to the wisdom and pro-

priety of asking the federal government for funds with which to carry on welfare activities which heretofore have been supported by local funds and administered by local agencies.

The fear was expressed that should federal funds be furnished, the federal government might take over the administration of these activities, or at least assume certain supervisory functions which would interfere seriously with present local administering agencies.

After prolonged discussion and despite the objections of a considerable number of those present, a resolution soliciting federal aid for local child welfare activities and for mothers' pensions was adopted.

It is interesting to find a group of welfare workers trembling at the thought of federal control, supervision, dictation, and interference in local governmental activities or over the functions of agencies which have long been responsible solely to local sentiment and local policy.

For years, the medical profession has been dubious of encroachments and interference of state and federal governments in the field of medicinal practice. In its opposition to excessive socialization of medical service, the medical profession has received no support from most of those individuals and groups engaged in social welfare activities. In fact, many enthusiasts among the welfare groups have given their active support to projects that smack of state medicine and have lent active encouragement to those promoting the complete socialization of medicine through governmental control or otherwise.

Now some of the ammunition that has been fired by some of the socially-minded groups who have been blind to practical social and economic problems and who have given their enthusiastic support to projects that have tended to disrupt medical practice and resulted in encroachments on medical practice and resulted in encroachments on the rights of the physician in private practice has proved a boomerang to plague them.

During the past few years, those engaged in welfare activities have witnessed the gradual trend toward the centralization of welfare work with a lessening of control and supervision by local agencies and individuals. Needless to say, they have not relished this development. Now that their toes and not some one else's are being trampled upon, they have raised a protest.

Even some of the most rabid enthusiasts in the field of social welfare are beginning to awaken to a realization that bureaucracy is undesirable and dangerous and that in the final analysis the people are better off if permitted greater freedom in running their own affairs through local individuals and agencies, responsible to their own local constituents and more familiar with local needs and conditions.—*Ohio State M. J.*, March, 1934.

Proposed Code to Direct Premedical Students and Recommendations to Medical Schools

The following report is the product of a special committee of the faculty of Washington and Jefferson College, Washington, Pennsylvania.

1. That a committee be appointed from the faculty and be recognized as the Premedical Advisory Committee.

2. That the Registrar is to serve as ex-officio member of the Premedical Advisory Committee to advise as to general scholarship.

3. That the Premedical Advisory Committee serve as an advisory council for all premedical students. This committee is to be available for conferences and guid-

ance at registration periods and on or about February 15.

4. That the Premedical Advisory Committee set up definite requirements in science and the other cultural subjects that will meet standards of the medical school and also of a cultural education. The fulfillment of these requirements will be necessary for a recommendation to medical school by the Premedical Advisory Committee.

5. That the Premedical Advisory Committee draw up a complete Recommendation Reference Form covering the physical, moral, and mental characteristics of each premedical student to serve as the college's recommendation of the premedical student to the medical school of his choice.

6. That the Premedical Advisory Committee draw up a form of Student Rating Card to be submitted to the science departments and to all other departments in which the premedical student has studied.

7. That all premedical students must file their applications to medical schools with the Premedical Advisory Committee before or on February 15 of the year in which they intend to enter medical school. At the same time the premedical student must present a list of medical schools indicated in the order of his preference.

8. That applications to medical schools must include character and scholastic reference from at least two professors, exclusive of the science departments.

9. That the Premedical Advisory Committee be kept advised by the registrar's office of all transcripts that have been sent to the medical schools by the students.

10. That the medical school advise the Premedical Advisory Committee as soon as applicant has been accepted. That the Premedical Advisory Committee withdraw the other recommendations of that student as soon as they have been advised. A notation to this effect is to appear on the Recommendation Reference Form.

11. In order to make this plan effective, all recommendations must pass through the Premedical Advisory Committee.

12. That the Premedical Advisory Committee should hesitate in recommending students who can not complete the work for the bachelor degree before the fall semester opens in the medical school of their choice.

13. To avoid the drawing of unfavorable comparisons, this special committee urges the formation of a similar advisory committee for the other general curricula, *i. e.*, preministerial, prelegal, *etc.*

14. That the various medical schools be consulted as to the qualifications they endorse and the type of men they are seeking.—*J. Assoc. Am. Med. College*, March, 1934.

COMMENTS AND EXCERPTS

Science and Research

According to Dr. Charles B. Davenport, director of the Department of Genetics of the Carnegie Institution of Washington, resistance to disease or susceptibility to it may be inherited. In a study of goiter in a mountain valley in western Maryland, Dr. Davenport found that inefficient thyroid glands tend to appear in families. All the population in the section studied ate essentially the same food and drank essentially the same water, which was poor in iodine, though the majority of the

persons living in this mountain valley did not have goiters. Many of the persons who did have goiters were related and the goiters appeared in certain families. Dr. Davenport concludes that "there are strains in the valley characterized by inefficient thyroids—incapable, at least, of functioning normally when there is but a very small amount of iodine in the water."

Dr. Charles S. Gallaher, of the medical department of the Eastman Kodak Company, Rochester, N. Y., in examining an employee who complained of severe headaches and lameness in one leg, detected an abnormal condition of the eye on the side opposite to the lame leg. Suspecting a brain abscess, he had roentgenograms made of the patient's brain. These revealed a knife blade embedded in the brain. Examination of the scalp revealed a fine scar. Surgical removal of the knife blade resulted in the patient's complete recovery. The patient was ignorant of the blade's being in his brain and of ever suffering a head injury. It is believed that the knife blade has been in the brain for more than 15 years, and that it entered during the Battle of the Argonne, during which time the patient was struck on the elbow by shrapnel, and was dazed for several hours. The medical attendants think that the knife blade was in the same shell that caused the elbow injury and was driven by the same explosion through the skull, entering while it was heated and thus cauterizing the wound it made.

Drs. Howard W. Haggard and Leon A. Greenberg, of Yale University School of Medicine, have reported to *Science*, that the gratification a tobacco smoker gets from smoking is due to the increased amount of sugar in the blood brought about by the nicotine in the tobacco. The nicotine acts on the adrenal glands causing them to discharge more adrenalin into the system. As a result, glycogen stored in the muscles and liver is converted to sugar, thus increasing the sugar content of the blood. The nicotine thus relieves the feeling of hunger and fatigue by temporarily increasing the amount of sugar in the blood, and explains why many tobacco users smoke when they feel tired or hungry. This effect of nicotine was discovered accidentally by these two scientists in their investigation of the question of the optimum mealtime interval for children, college students, and industrial workers. It was found that the blood sugar concentration rose after a meal, and decreased to a fasting level within 2 to 4 hours if another meal was not taken. In some adults and in all children it was found that this fasting level concentration of blood sugar remained unchanged for many hours. In some adults the blood sugar concentration showed sudden rises and falls after it had reached the fasting level. It was suggested and subsequent investigation proved that smoking caused these sudden variations in blood sugar concentrations, thus explaining, apparently for the first time, the reason for the gratifying effects of tobacco smoking.

Technologists of the Bureau of Fisheries have just found that oil from livers of swordfish contains from 75 to 100 times as much vitamin D as the U. S. pharmaceutical reference cod liver oil, and from 15 to 25 times as much of vitamin A. The new product compares favorably with oil from the liver of the halibut, being higher in vitamin D content and lower in vitamin A content. The Bureau states that 2500 gallons of swordfish liver oil is equivalent to nearly 250,000 gallons of ordinary cod liver oil. The discovery of the high vitamin content of the swordfish liver oil, however, is not of outstanding importance at present because of

the low catch of swordfish. Approximately 2500 gallons of swordfish liver oil could be produced annually from the present catch of swordfish; no estimate has been made as to the possibilities of increasing the size of the catch.

MEDICAL ECONOMICS

Concerning Charity Grafting.—Without waiting for any elaborate red tape or staff of investigators, the St. Louis County Medical Society has hit on a simple plan to reduce charity grafting. Every applicant for free service is asked to make an affidavit as to his financial condition. "Do you own real property?" he is asked. "Are you, or any of your family, employed?" "What wage or salary?" "Have you a bank account?" "State your income." "How many dependents?" The paper can be filled out in ten minutes, and the applicant is required to sign it and take his oath before a notary that it is correct. And what is the result of this plan? Charity abuse at the County Hospital has dropped 60 per cent.—*N. Y. State J. M., May 15, 1934.*

Plight of the Doctor Under Compulsory Health Insurance.—The Committee on the Costs of Medical Care stated the overhead costs of the physician practicing his profession were 40 per cent of his income. In all the remedial schemes suggested the argument for the low income to be allowed doctors was that it was *net income*—though it were but 60 per cent of what he formerly earned, the elimination of the overhead, almost completely, would leave him with this amount assured and his mind undisturbed by money matters. The comparison of the health insurance schemes of Europe gave, as a rule, the plan in England as most preferred. A recent report reprinted by the Milbank Fund of an address of Dr. G. F. McCleary, of England, contains some welcome definite statements. In terms of our money at the present rate of exchange the average total income of the insurance doctor was \$2250 per year. From this total the physicians "accepted from the government" a cut in rates in 1931 of 10 per cent as a measure of national economy. The income tax of nearly the same additional amount is "accepted from the physician" by the government. There is nothing said in the report of the maintenance expenses of the doctor—the overhead, although one-third of his calls are at patients' homes, and two-thirds at his office. His expenses must come near the 40 per cent of gross earned by the physicians in the country, thus leaving him a net income in our present money of \$1000 per year. When Dr. McCleary delivered these lectures in this country a year ago the value of the year's income of the English insurance doctor was \$1750 in our money. Deducting the 60 per cent for the maintenance, income taxes, and reduced rates, the new income, according to this way of calculation, would be \$700 per year. These lectures on the compulsory health insurance plan of England were delivered shortly after the report of the Committee on Costs of Medical Care had been issued favoring compulsory health insurance.—Editorial, *Medical Times and Long Island Medical Journal*, June, 1934.

Compulsory Health Insurance Fails in England.—While many forces are attempting to bring about in this country an insurance system similar to that of Britain it is well to recall the words of Sir Henry Brackenbury, active in the British Medical Association

while that organization was concerning itself with the policies and development of health insurance:

Today, more than ever, I find public attention—the attention both of those who provide the money and of those who receive it—concentrated on the cash benefits which may be claimed rather than on the medical attention which may be secured. To a not inconsiderable degree the national health insurance system is in danger of becoming a gigantic machine for the distribution of shillings and only secondarily a beneficent medical and health service.

One can easily imagine the value of the British scheme with respect to preventive medicine and public health.

A sympathetically administered poor law, thinks Sir Henry, would probably better serve many beneficiaries of the present insurance system.

It is obvious that Sir Henry, long intimately acquainted with the system, regards it as a failure. If the British people desire to continue some sort of insurance system, he suggests that it "should be on a voluntary basis." A voluntary system "would avoid the difficulties and abuses which most of us have experienced as arising when the opportunity for cash payments is compulsorily extended to those whose ingrained habits and modes of thought prevent them from appreciating the conditions with which those opportunities are surrounded. I doubt, indeed, whether it will be possible for the nation to continue much longer upon the present lines."

As to the panel doctors themselves, the recent ten per cent cut reduced their scale of living to a deplorable point, affecting most notably their children's educational budget.

The great British profession has been thoroughly exploited to feed, among other things, the egotism of a Lloyd George.

We have to beware, in this country, of certain carbon copies of Lloyd George, would-be perpetrators of socialization who would give us something even worse than the British system. What would the doctors matter, in the hands of politicians bent primarily upon doles to the mob and bureaucratic jobs for henchmen?

We are protected for the time being, not by any power of our own, but by the vast federal expenditures for other purposes and the present mighty burden of taxation.—Editorial, *Medical Times and Long Island Medical Journal*, June, 1934.

New Jersey Tries Out Two Medical Plans

Under this title the following specially written article appeared in the *New York Times*, June 24, 1934. The Essex County Plan which seeks to provide hospital care through insurance has been previously published in this JOURNAL.

"The medical profession in New Jersey is keeping close watch on two developments, one state-wide and the other county-wide in Essex, which deviate from orthodox methods of medical practice.

"Interest in their potentialities is heightened by the recent report of the Milbank Memorial Fund Advisory Council, suggesting state systems for compulsory health insurance, and by the rift which occurred this month between the American College of Surgeons and the American Medical Association. The former urged a system of voluntary health insurance, and the latter opposed it.

"The two developments in this State are the Associated Hospitals of Essex County, Inc., which embodies

a voluntary insurance plan, and the set-up, agreed to between the New Jersey Medical Society and the State Emergency Relief Administration, providing professional medical care for the indigent unemployed and their families.

"Sixteen of the 17 community hospitals in Essex County are parties to Associated Hospitals, which has 6232 subscribers who pay 85 cents a month each to the organization. In return, each is guaranteed hospital service in the event of an illness requiring it. Maternity care and compensation cases are excepted. Provision for attendance by a physician is not a part of the Essex plan.

"The Medical Society-ERA arrangement is coöperative. Local relief directors issue authorizations for medical care, physicians execute them and the administration meets the cost. Fees are regulated in the agreement between the two organizations. The medical society in each county prepares a list of physicians from which a recipient of medical care selects the physician which he or she prefers. In the 6 months from September, 1933, to last February, the ERA expenditure for this type of relief was \$168,991.

"There are several important differences between these two developments. The Medical Society-ERA arrangement is temporary, it is supported from tax revenues administered by a government agency, it directly involves physicians, and it provides for the indigent unemployed and their families. The Associated Hospitals is permanent, its financial base is private in character, it involves only hospitalization, and its announced purpose is to serve families which, although self-sustaining, have small incomes.

"Medical men have criticized the Associated Hospitals, pointing out that among its subscribers are individuals within the higher income levels. If it were not for this factor, there is every possibility that the profession in this State would formally approve the Associated Hospitals and its work.

"Although not entirely satisfied with the detailed operation of the Medical Society-ERA set-up, the profession is inclined to regard it favorably as an emergency measure. Whether or not it might eventually become permanent in a revised form is a question which is arousing interest.

"Before the depression dependency relief in all forms was provided and administered in this State as a governmental function conducted on a municipal, and to some extent a county, basis. Failure of tax revenues and an increasing relief burden forced the State, and even the Federal Government, to fill the gap through the ERA.

"Community hospitals were subjected to reduced revenues, income from voluntary contributions falling sharply in 1929, from patients in 1930 and local taxation sources in 1931. The ERA came to the rescue with a hospitalization program, which further emphasizes the extent to which old methods have been shaken. During the September-February period the ERA hospitalization expenditure was \$305,248.

"If the Medical Society-ERA system were revised and made permanent in legislation, the result would be State intervention in the medical sphere similar to that which already exists in public education. Adaptation of the system to bring within its scope families of middle income levels might logically follow. Against that medical organizations in this State are adamant.

"In the Essex voluntary insurance plan, the Coöperative Medical Society-ERA program and the ERA hospitalization venture, New Jersey has a laboratory in

which to study the issue which has seized the attention of the medical profession throughout the country."

Additional Articles on Medical Economics

Group Hospitalization—p. 852.

Chester County, May 15—p. 862.

York County, June 16—p. 870.

PHYSICAL THERAPY

Physical Therapy at the A. M. A. Convention

There were more than the usual number of interesting papers and exhibits relating to physical therapy at this year's convention in Cleveland.

Notable among the papers were: The presentation on "Orthopedic and Physical Therapeutic Treatment of Chronic Arthritis," by Loring T. Swaim, of Boston. This paper stressed particularly the dangers of overactivity during the active stage of the disease, and the general principles underlying the use of massage, heat, baths, and exercises in the treatment of chronic arthritis.

Electrosurgeons as well as ophthalmologists were interested in the presentations of Mark J. Schoenberg, of New York, and Clifford B. Walker, of Los Angeles, on "The Treatment of Retinal Detachment by Electrical Coagulation." Dr. Schoenberg reported 12 complete reattachments and 9 failures. Dr. Walker presented new instruments which render this method easier of application.

Henry J. Gerstenberger and his collaborators presented a paper of interest to all light therapists on "Further Studies on Tungsten Filament Radiation." (Dual purpose lighting.) They reported on a 3-year study of the feasibility and effectiveness of ceiling, tungsten filament radiation (dual purpose lighting) in transmitting the antirachitic factor to human beings. They obtained positive results in studies on wet nurses, orphanage children, and rachitic infants.

Physicians interested in oxygen therapy noted Alvan L. Barach's and Robert L. Levy's paper on "Oxygen in the Treatment of Acute Coronary Occlusion." These workers consider that this procedure frequently affords great symptomatic relief, and that it helps to sustain cardiorespiratory function during the critical period, thus making possible ultimate recovery.

There were two papers on fever therapy. One by William Bierman, of New York, on "Some Changes Occurring During Hyperpyrexia Induced by Physical Means," in which he discussed the effect of artificial fever on skin surface temperature, blood velocity, pulse rate, blood pressure, blood viscosity, sedimentation rate, respiratory rate, white blood cell count, and blood carbohydrates. The marked changes demonstrated indicated that fever therapy is capable of producing profound physiologic changes. The other was on "The Treatment of Syphilis with Hyperpyrexia," by Norman Epstein and Maurice Cohen, of San Francisco, who described a simple method of producing fevers of 103.5° to 105° F. for periods of 6 to 7 hours per treatment, by means of radiant heat. The results in syphilis were encouraging.

Fred Weidman and Jacques Guquierre, of Philadelphia, described a method for removing skin lesions for biopsy by means of the cutting current, and showed that very small lesions could be removed while there would still be sufficient noncoagulated tissue preserved to permit histologic study.

The paper by Stanley Wang, of New York, on "Quartz Light Therapy in Urogenital Tuberculosis," stressed the point that light therapy should not be used alone, but should be included in the general plan of treatment; it should be extensively utilized, and he

described a specially devised quartz applicator for use within the bladder in tuberculous cystitis.

Among the scientific exhibits, there was a demonstration by Irving S. Wright, *et al.*, on the use of acetyl-beta-methyl choline chloride by iontophoresis in the treatment of certain forms of arthritis. A simple galvanic current was used to introduce the drug into the tissues surrounding the affected joint, and long lasting hyperemia and increased skin temperature were produced.

Grant Ward, of Baltimore, presented a very complete exhibit on electrosurgery and radium therapy in the treatment of cancer.

The Council on Physical Therapy presented an exhibit on some of the simpler physical therapy measures applicable to general practice. This demonstration stressed particularly the early use of radiant heat and gentle massage in the treatment of Colles' fractures. A special 16-page pamphlet on "Useful Therapeutic Measures" was distributed. This pamphlet defines physical therapy; describes the beneficial physiologic effects of heat; tells by means of simple illustrations how to give a full wet pack; how to make an inexpensive whirlpool bath; how to give a warm paraffin bath; how to administer contrast baths; and how to construct a simple, inexpensive, homemade baker. More than 4000 of these pamphlets were distributed. The pamphlet may be obtained by writing to Mr. H. A. Carter, secretary of the Council on Physical Therapy, 535 North Dearborn Street, Chicago, Illinois. It contains much useful information for every physician.

Hyperpyrexia Baths and Epilepsy.—Helen Hopkins, in an article in *California and Western Medicine*, states that the effect of hyperpyrexia baths upon the human organism is one of augmentation of cellular excitability developed upon the basis of alterations in chemical and physiologic equilibrium. The present discussion has been confined to these changes as they concern the functional activity of the nervous system. By the use of this measure, latent neurologic and psychic abnormalities have been made apparent.

The experimental use of hyperpyrexia baths in the study of convulsive disorders has been of practical value in the localization of the central pathology, and has shifted some of the clinically functional cases into the organic group. One outstanding example comes to mind of an adolescent girl who, after investigating the nature of her symptoms and in the absence of positive neurologic findings, was classified as a functional case. A major convulsive seizure was elicited by the bath and unquestionable unilateral localizing signs were brought out. Subsequent encephalographic study after lumbar air injection confirmed the localization and revealed an extensive unilateral atrophy of the cerebral cortex.

In view of the percentage (15 per cent) of hyperpyrexia baths resulting in convulsive reactions in well-known cases of the epileptic syndrome, it should be borne in mind that failure to induce a seizure does not rule out the possibility of epilepsy. Positive results are not only of diagnostic value, but frequently lead to the localization of the lesion.

Because of the property possessed by high temperature baths of augmenting nervous excitability, and of transposing latent into manifest neurologic signs, this experimental method can be offered for the study and diagnosis of a wide variety of disorders of the nervous system. The experimental investigation of the changes effected within the body by hyperpyrexia baths should lead to a better understanding of excitability, and to

the discovery of the mechanism for the beneficial influence of fever therapy upon specific disease conditions.

MEDICOLEGAL NOTES

Some Legal and Illegal Aspects of Plastic Surgery.—In an article with this title, published in *Medical Times and Long Island Medical Journal*, June, 1934, Dr. Jacques W. Maliniak, of New York City, summarizes as follows:

From principal legal considerations that enter in the practice of plastic surgery, it seems plain that more vigorous action should be taken against both the lay cosmeticians who encroach upon the medical field and those so-called beauty specialists, protected by an M.D., who usually work in association with beauty parlors and employ risky procedures that have been condemned by the responsible majority of the medical profession.

On the other hand, greater protection should be given the reputable plastic surgeon who employs recognized procedures for the correction of cosmetic and functional malformations. To this end, the diagnosis of deformity should be more precisely established with due regard for physical, psychic, social, and economic factors. Once a proper diagnosis of deformity has been made, the surgeon who displays average skill and takes reasonable precautions for the safety of his patient should be protected against malpractice actions even if the end result is unsatisfactory.

In many industrial and negligence actions, exaggerated awards are made for so-called permanent disfigurement when plastic surgery could remove or minimize the deformity. Indemnity should be granted in such cases only after expert repair has accomplished all it can.

It is unfortunately true that the rank and file of neither the medical nor the legal profession is particularly interested in the legal aspects of plastic surgery or the still vague medicolegal principles that govern litigation arising out of this specialty. A more precise understanding, among lawyers as well as doctors, of the indications for surgical repair and its great potentialities would materially advance human happiness and justice.

INDUSTRIAL MEDICINE

Mercury-Laden Air.—In the March, 1934, issue of *Journal of Industrial Hygiene*, A. M. Fraser, K. I. Merville, and R. L. Stehle claim that prolonged inhalation of air that contains mercury vapor is recognized as an important hazard in certain industries. Because there was no exact information concerning the concentration of mercury in the air that is definitely toxic, the authors undertook a study on dogs which were exposed to the continuous inhalation of mercury vapor of known concentration. They found that inhalation of a concentration of 1.89 mg. mercury vapor per cubic meter of air for 8 hours daily during a period of 40 days did not produce any evidence of mercury poisoning. The minimum concentration of mercury vapor that produced chronic toxic effects under similar conditions was 3.05 mg. per cubic meter. More acute effects were produced by higher concentrations. A dog weighing about 12 kg., at the time signs of mercury poisoning appeared, excreted daily about 0.5 mg. mercury. If man is equally susceptible to mercury vapor, the average daily urinary excretion of mercury, when symptoms of mercury poisoning become evident, would be about

3 mg. Experiments on the absorption of mercury vapor indicate that when the concentration is from 2.91 to 26.18 mg. per cubic meter of air, the proportion absorbed varies from 21.3 to 26.6 per cent of that inhaled.

HOSPITAL ACTIVITIES

Widen Hospital Scope.—Because of a decided decrease in the number of tuberculosis victims requiring special care, the Free Hospital for Consumptives and White Haven Sanatorium Association, with expected official consent, announced, April 26, 1934, it will throw open the doors of its institutions to those suffering from other ailments, physical or mental. It was pointed out that the extensive facilities of the association are not being completely used in treatment of consumptive patients, and it was decided to change the charter of the organization in order to admit others to the hospital and sanatorium.

Dr. Lawrence Flick, Philadelphia, president of the association, explained that the decrease in number of consumptive cases already has resulted in many private sanatoriums for consumptives in the State being forced to close their doors. He said that, rather than eventually being forced to close the doors of the association's institutions, the change in charter would permit the organization to carry on its beneficial work in a larger field.

Concerning Free Clinics.—In an article, "The Plight of the Doctor," published in *American Mercury*, George W. Aspinwall states the following concerning free clinics: "At first the free clinic was what the name implies. No charge of any kind was made to patients. But later small fees were accepted and finally fees of ten, twenty-five, and fifty cents were imposed. Even the poor could afford that, reasoned the heads of hospitals. There were electric bills to be paid, nurses' wages to be met, and other expenses, except for the doctors' services.

"It is now customary even in hospitals maintained by public and private contributions to make small charges for medical service and drugs in the so-called free clinics. But it never has become customary for the doctor to be paid for his work in these clinics. As a matter of fact, many doctors have been dismissed from hospital staffs for violating the rule which forbids a doctor from inviting a clinic patient to become his private patient.

"And once a free patient always a free patient. Doctors have observed that they rarely ever are visited again by a patient after that patient has acquired the free clinic habit. The patient reasons that he was a fool, indeed, ever to have paid doctor's bills. 'With free treatment available just around the corner?' And most of those who first entered free clinics because of the economic depression never again will patronize their family doctor. They have joined the nation's vast army of free patients, and to what a size that army will grow no one can tell.

"There are 500,000 persons in this country being treated in free clinics each day. It may be assumed that the attention given the average patient is worth a minimum of \$2, as this attention is exactly what the patient has been getting from his family doctor. As in all free clinics the doctors donate their services, it may truthfully be said that the doctors are donating \$1,000,000 daily to the sick poor and those who pretend poverty to procure free medical service."

PUBLIC HEALTH

Mental Treatment.—In the opinion of Dr. Winifred Richmond, psychiatrist of the staff of St. Elizabeth's Hospital, Washington, D. C., the mental hygiene movement—knowledge of the laws of the mind by which persons may be enabled to handle their own mental problems—is beginning to branch out into the community at large rather than confining itself to the pathologic cases in institutions and clinics. In a recent article in the *United States News*, Dr. Richmond states that the seriousness of the situation which confronts the psychiatrists is shown by the fact that approximately one out of every 30 persons at some time or other has to undergo treatment for mental ailments. This is the proportion for New York State and it is believed to be general.

Dr. Richmond claims that the mental characteristics of the population may be described as falling in four different classifications—the thinkers, the feelers, the hunchers, and the sensationalists. Every one fits into one of these classes, according to Dr. Richmond, although any individual may be a thinker in one sort of life activity and be a "huncher" in another.

Restoration of Vision.—In the course of a survey undertaken by the National Society for the Prevention of Blindness and the Committee on Statistics of the Blind it was discovered that many children who are now in schools for the blind might have their sight restored through adequate medical or surgical treatment. To quote from a report of Lewis H. Carris, managing director of the Society: "Ignorance is usually the underlying reason for loss of sight, whether it be the result of disease or accident.

Although trachoma is the principal cause of blindness throughout the world, this eye disease is well under control in the United States and is comparatively rare in large cities. Reports from the United States Public Health Service indicate a decrease in the prevalence of trachoma in this country. Trachoma is found mostly in the Ozark and Appalachian Mountain regions and among the Indian tribes of the Southwest.

Steady Decrease in Deaths During Depression.—The death rate in the United States last year declined, most of the major causes of death except cancer, diabetes, and diseases of the heart showing reductions, according to the preliminary mortality figures collected by the United States Public Health Service on the basis of data from 28 states with a total population of nearly 95,000,000.

Cancer continued its steady increase, the rate of 103 deaths per 100,000 being greater than in any other year included in the Public Health Service studies. In 23 of the 28 states, cancer showed an increase.

Diseases of the heart also continued to increase, 19 of the 26 states with available data having higher rates in 1933 than in 1932.

Typhoid fever continued to show a steady decline, being 2.6 per 100,000 for 1933 as compared with 3.2 and 3.8 for 1932 and 1931.

Diphtheria which has been declining in prevalence for many years reached a new low level of 2.9 per 100,000 as compared with 3.8 and 4.1 in 1932 and 1931.

The Public Health Service reports that the number of cases of illness causing more than one week's absence from work among 152,203 industrial employees, representative of the entire industrial population, was lower than at any time since it commenced this type of survey in 1921.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

ATTENTION is being called to the coexistence of tuberculosis and diabetes. Is the presence of these diseases in the same individual merely coincidental or do they supplement each other in an unholy alliance to the more certain detriment of the victim? Questions of predisposition, prognosis, and treatment are influenced by the answer. In a series of four articles based on an analysis of the literature and on recently ascertained facts, Howard F. Root discusses "The Association of Diabetes and Tuberculosis."

DIABETES AND TUBERCULOSIS

Diabetes mellitus seems to predispose to the development of pulmonary tuberculosis. In studying 245 cases of associated diabetes and pulmonary tuberculosis the following facts appeared outstanding.

(a) The development of pulmonary tuberculosis in juvenile diabetics occurred more than 10 times as frequently as among nondiabetic grade and high school children.

(b) Pulmonary tuberculosis developed in 8 per cent of diabetic patients within 3 years of recovery from coma.

(c) The incidence of pulmonary tuberculosis in adult diabetics is increasing despite the general decrease of tuberculosis mortality.

Incidence

(1) Active tuberculosis was found in diabetics (at necropsy) between 2 and 3 times as frequently as expected.

(2) Tuberculous infection in diabetic children is more common than in school children as a whole.

(3) Adult type pulmonary tuberculosis in children who develop diabetes before the age of 15, is more than 13 times as frequent as among grade school children in general.

(4) In adolescents who developed diabetes between the ages of 15 and 20, pulmonary tuberculosis was found 16 times as frequently as among high school students in general.

(5) Among diabetic adults active tuberculosis was found in 2.8 per cent.

(6) Deaths from tuberculosis among diabetics increased from 4.7 per cent before June, 1919, to 6.7 per cent in the period between August, 1922, and November, 1931.

(7) Familial contact, race, occupation, housing, poverty, and alcoholism do not appear to explain the greatly increased incidence of pulmonary tuberculosis in diabetics.

Pathology

Study of 126 necropsies upon tuberculous diabetics leads to these summarized conclusions:

(1) The tuberculous diabetic need not proceed rapidly to death from tuberculosis. At necropsy, healed and healing lesions are frequent.

(2) Primary foci occur in childhood and areas of calcification in the parenchyma were observed in 76 out of 87 chest films of adult tuberculous cases.

(3) Miliary, meningitic, and acute generalized tuberculosis are rare.

(4) Caseation and cavitation involve chiefly the upper lobes although the first lesions of reinfection were sometimes observed at or below the level of the hilum.

(5) Acute pneumonic or miliary processes were found usually as terminal events in a chronic pulmonary process.

(6) The presence of large caseating lymphatic glands together with pulmonary tuberculosis in 5 cases resembled the tuberculosis of Negroes.

(7) Because of primary infection early in life, diabetics are highly sensitized. Their resistance seems to have been normal until diabetes developed.

(8) Etiologic factors introduced by diabetes are concerned chiefly with changes in body chemistry which may favor multiplication of bacilli or development of variants. These include dis-

ordered protein and fat metabolism with increased amino acid nitrogen and glycerol in the tissues, induced especially in periods of acidosis.

(9) Contact with open cases is known in a sufficient number to make evaluation of other factors difficult.

Clinical Facts

The clinical data which were obtained from 245 tuberculous diabetics include the following:

(1) Only 10 were discovered with a minimal pulmonary lesion. Tardy diagnosis characterizes diabetic tuberculosis.

(2) Onset of tuberculosis was subsequent to onset of diabetes in 85 per cent of the cases.

(3) Although both sexes were equally infected early in life, male diabetics are almost twice as likely to break down in adult life with pulmonary tuberculosis as are females.

(4) The average loss of weight for 219 cases was 42 pounds and in 24 cases the average was 88 pounds.

(5) Marked gain in carbohydrate tolerance during advancing tuberculosis occurred in a few cases.

(6) Comparison of onset-symptoms and physical signs with those in nondiabetics shows no special insidiousness in the development of tuberculosis in the diabetic.

(7) No special diabetic type of lesions was observed (by roentgenograms) although exudative, pneumonic types with cavitation frequently developed in patients with evidences of previous infection.

(8) The incidence of pulmonary tuberculosis increases with the duration of the diabetes. Among 19 males with diabetes over 20 years, 3 or 16 per cent had active pulmonary tuberculosis.

(9) In childhood, skin tests with tuberculin were positive in 46 per cent of cases both in Boston and in Vienna. Among 201 diabetic children calcified tracheobronchial glands were found in 42 per cent in the first decade and 74 per cent in the second decade of life.

(10) Of 17 cases of adult type tuberculosis in juvenile diabetics, 11 are still living with diabetes of 9 years' duration and tuberculosis of at least 3 years' duration.

(11) In 49 cases, tuberculosis developed after age 60. Processes apparently latent for years developed activity after onset of diabetes.

Prognosis

The prognosis for the diabetic patient with tuberculosis was considered practically hopeless

before the use of insulin. All statements in the past have been based upon tuberculosis discovered in an advanced state. At present insulin and modern dietary treatment distinctly improve the prognosis in preventing death from coma and in maintaining better nutrition. Collapse therapy in properly selected cases is an additional favorable factor.

Prevention and Treatment

(1) In order to promote good nutrition and resistance to tuberculosis, the use of insulin should be begun immediately in all youthful diabetics.

(2) Considering age, weight, and diet the tuberculous diabetic required about the same insulin dose as the nontuberculous case. The average daily dose in 18 cases of tuberculosis and diabetes at the Deaconess Hospital between ages 15 and 29 was 39 units.

(3) Serious hypoglycemia must be guarded against by the cautious use of insulin in severely ill, or emaciated tuberculous diabetics.

(4) Sixty-nine fatal cases of tuberculosis and diabetes treated with insulin lived 8.6 years, whereas, 90 fatal cases treated without insulin lived only 5.4 years after onset of diabetes.

(5) The last 10 cases of active tuberculosis and diabetes with fever at the Deaconess Hospital received an average diet of carbohydrate 157 grams, protein 83 grams, fat 116 grams, calories 2004 and insulin 42 units.

(6) Coma cases should be followed up yearly by roentgen-ray examination for the detection of developing tuberculosis.

(7) Eighteen cases alive in 1933 have survived active pulmonary tuberculosis for an average of 9.0 years.

(8) The recognition of pulmonary tuberculosis in a truly incipient stage in a diabetic is almost unknown in the literature. Ten cases occur among 245 in this series.

(9) Prognosis for the tuberculous diabetic depends upon earlier diagnosis of the tuberculosis by more frequent physical and roentgen-ray examination.

(10) Lack of control of the diabetes increases the chance of developing tuberculosis, as indicated by the frequent development of tuberculosis in cases who have had coma.

(11) Preventive measures include early aggressive diabetic treatment, and good hygiene.

The Association of Diabetes and Tuberculosis, Howard F. Root, New England Jour. of Medicine, Jan. 4, 11, 18, and 25, 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

CALL TO THE 1934 MEETING

The first meeting of the House of Delegates of The Medical Society of the State of Pennsylvania will be called to order in the Irem Temple, Wilkes-Barre, on Monday, Oct. 1, 1934, at 3 p. m.

A notice regarding parliamentary requirements for consideration of Amendments was published in this Department in the May JOURNAL, as follows:

Proposals for amendments or alterations to the Constitution and By-laws of our Society, if offered during the interim between annual session, must be sent to the Secretary of the Society at least 4 months before the next annual session, and must be published in the JOURNAL at least 3 months in advance.

Three proposed amendments to the By-laws, which were published in the June JOURNAL, will be published again in the September JOURNAL as well as in the official handbook for the 1934 Session.

IF THREATENED WITH SUIT

If you are threatened with suit for alleged malpractice, communicate at once with the Secretary of your County Medical Society, the Councilor for your District, or the Secretary of the State Society, before consulting an attorney. The State Society reserves the right to appoint or approve the attorneys in all such cases, and will not be financially responsible for legal advice obtained from any other source.

THE MEDICAL ECONOMICS COMMITTEE

In this issue will be found two fact-finding reports by our State Society Committee on Med-

ical Economics created "to investigate and devise." In these reports it will be noted that the Committee has very wisely refrained from injection of the Committee's opinions, having limited its reports to facts and opinions expressed by those solicited for same. It is refreshing to be informed in one report that abuses under contract medical practice are unknown to most of our Pennsylvania County Societies, and it is of interest to read in the other report that group hospitalization insurance plans "as approved by the county medical society concerned are not yet in action."

Our Economics Committee, striving hard through great expenditure of time and energy by its membership, will publish additional fact-finding reports in the August and September JOURNALS, supplementing same with a report at the opening session of our 1934 House of Delegates which will impart constructive suggestions to control forces which threaten medical service by the private practitioner.

In the meantime, each member of our State Society has a great responsibility to discharge; namely, to defend in conversations with his clientele, his neighbors, and his State and Federal legislators—(1) Free choice of physician; (2) the maintenance of high quality of medical service; and (3) the exclusion of the third party between physician and patient in all forms of medical service.

Apropos of hospital insurance proposals, we republish the following from the Officers' Department of the July, 1933, PENNSYLVANIA MEDICAL JOURNAL:

The medical profession in practically every community is faced with the responsibility of giving this question careful and thorough consideration. . . . Above all things, the medical profession should not be deluded into believing that the question of hospital in-

insurance is not a medical problem, all arguments to the contrary notwithstanding. It is. The appropriate time to give it the consideration it deserves is now. As one writer has pointed out with regard to hospital insurance: Once it is started, controlled by lay middlemen, it is not improbable that its benefits can be extended to a point where they will invade the field of the private practitioner.

**IN RE: MODIFICATION EMERGENCY
MEDICAL RELIEF SERVICE PLAN
(\$7 AND \$100 LIMITATIONS)**

June 14, 1934.

*To the Members of Medical Advisory Committees
to County Emergency Relief Boards, the President,
the Secretary, and the Chairmen of Public
Relations Committees, County Societies*

GENTLEMEN:

Regarding the May 16 communication addressed by the State Director of Emergency Medical Relief—Harold A. Miller, M.D.—on the above subject, it seems to be impossible to express in a few brief paragraphs all the qualifying thoughts which may easily modify in actual practice the limitations laid down in the communication referred to.

For instance, No. 2 reads: "The average medical order of physicians in rural districts should be about seven (\$7) dollars per medical order accepted (obstetrics excluded)." This will permit participating physicians in your county to give service to a few patients, charges for same totaling \$8 to \$14 each, and yet permit in addition thereto payment for service to quite a number who would require but a single visit, or one or two office calls each. Or, for example, 10 patients, 3 visits each, in a month; and 25 office patients 1 visit each, 15 of whom might come for a second visit, totaling \$100, all obstetric service to be paid for in addition.

Forgive indulgence in a discussion of details of this character, but they reflect discussions by your State Advisory Committee before reluctantly approving this latest modification.

Considering that which our members were receiving for their services to citizens on emergency relief prior to Dec. 1, 1933 (presumably nothing) and the total cash paid Pennsylvania physicians participating (very roughly estimated at 6600 physicians who actually received \$660,000) in the first 6 months of the Plan, and recognizing the fact that the customary charges for such services would have been worth twice that amount, we nevertheless consider the total reasonably satisfactory, and the service certainly infinitely better for all concerned than had the same people been treated by a few politically appointed physicians in each county on a salary basis.

Our membership entered the emergency medical relief service under the present plan which was evolved only because the taxpayers' money to pay for same had finally become available, and our Society had long contended that medical care of the indigent was the responsibility of the entire community, not the medical profession alone.

Having thus entered on a free choice of physician-fee payment basis, your State Advisory Committee and your State Society Officers sincerely hope that our membership will continue to be magnificently coöpera-

tive, as they have been to date, remembering that our efforts of today will soon be reviewed by the social reformers, and possibly by politicians, who may attempt to prove that the State Medical Society—composed of 60 component societies—is not coördinative, and therefore incapable of assuming to administer medical service under any other emergency or more permanent form of medical service which may spring up in the very next session of our State Legislature.

We solicit continuation of your support of the position taken by your State Medical Society in the emergency relief program and urge that your membership give sympathetic consideration to the position of the State Medical Advisory Committee in its endeavors to guide this program through, at least until the October next meeting of our State Society House of Delegates.

Allegheny County met the situation created by the May 16 modification in the spirit expressed by the following words quoted from a letter dated June 6 sent by the Executive Committee of the Allegheny County Medical Society to each of its 1300 members:

"We regret to inform you that further curtailment of the payments for Medical Relief may be necessary, since the funds which were originally appropriated for this purpose are now exhausted. It seems possible at this time that future appropriations will not be as large as those which have already been made. Past appropriations were not large enough to pay all bills in full, and if future appropriations are less, naturally there will have to be further reductions.

"Your Executive Committee takes this occasion to express its high appreciation of the work of your Advisory Committee, whose task has been most difficult and whose judgment has been considerate of all practical circumstances. We are also very grateful to our membership for the many sacrifices they have made in order to coöperate to the fullest extent in carrying out this new and complicated program. However, the medical profession must overlook individual grievances and act in accordance with that which is best for our profession, which is now, through no fault of its own, on the defensive.

"The local and State Advisory Committees stand willing to explain to you any situation which may seem at variance with your concept of this activity."

The last paragraph of the letter from the Allegheny County Committee above quoted correctly expresses the thoughts of the State Advisory Committee and Director Miller, as brought out in discussions of interpretations under modifications dated May 16.

Situations which might arise for extension of the financial limitations of the May 16 modifications follow:

1. Should a participating physician encounter in his relief practice an epidemic requiring extraordinary service, appropriate recommendations by his county Advisory Committee to the State Advisory Committee would lead to proper consideration.

2. A participating physician—whose office records might satisfactorily demonstrate that prior to Dec. 1, 1933, a preponderant proportion of his practice paid him nothing and continued to be treated by him, under properly authorized MO's—would receive proper consideration.

On an attached sheet herewith we offer several examples of liberal extensions already made to the monthly limitation of \$100.

Dr. Miller and the Officers of your State Society on all occasions express appreciation for the unrewarded services of county society Advisory Committees throughout the State, praising also the support of the participating physicians—without which there could be no success for this emergency medical relief program which has been placed, in Pennsylvania, in the hands of our profession to devise and administer.

This enormous emergency medical service program becoming, each succeeding month, better organized and consolidated by experience on the part of participating physicians, county Advisory Committees, your State Society Advisory Committee, and Dr. Miller's division at Harrisburg, will soon be functioning more smoothly.

From our files which contain many such communications we published one recently received from the president of a component county medical society addressed to Dr. Miller, which emphasizes the coöperative spirit in which your State Committee desires to carry on:

"I wish to thank you in behalf of the ——— County Medical Society for your untiring efforts in the matter of adjustments. Every one is in a much better frame of mind. You have had a mighty tough proposition and I congratulate you on the frank and straightforward manner in which you have carried on. It will be my utmost endeavor to have our Society with you 100 per cent at all times."

Again soliciting your continued support, we remain

Very truly yours,

GEORGE L. LAVERTY, Harrisburg, *Chairman*,
W. BURRILL ODENATT, Philadelphia,
HENRY T. PRICE, Pittsburgh,
CHARLES H. SMITH, Uniontown,
WALTER F. DONALDSON, Pittsburgh.

Advisory Committee to State Emergency Relief Board.

APPENDED

Statements for physicians' services rendered on approved MO's whose totals far exceed the \$100 limit seem to fall into two classes, *viz*:

1. Conscientious service has been rendered. Diagnoses amply explain the reason for charges exceeding the desired average. These physicians have a large justification among the unemployed class and there is ample justification for allowing the full charge. These physicians have encountered serious illnesses which justify their exceeding the average cost, and their bills for excess amounts have been approved.

2. The second class, exceedingly few in number, show an excess of calls without regard for the type of case concerned. Many of them have multiple diagnoses. These physicians will invariably treat several cases in each family, finding many ailments for each individual. Some of the diagnoses are vague and do not come within the provision of emergency relief. Examples of conditions treated, believed not to be emergent, are: Lipoma, rheumatism, hypertrophied tonsils, hemorrhoids, neuritis, deafness, cross-eyes, swollen feet, cystitis (many cases), alopecia areata, *etc.* With these physicians there is definite evidence of exceeding the provisions of the program; an excessive number of calls by comparing their work with that of other physicians in the community; and bills are excessive in the total and on the average. They do not have the professional spirit, and may defeat the idealism of our effort. They will boast to fellow practitioners of the size of their check, and will spread discontent.

GROUP HOSPITALIZATION

Factual Report of the Committee on Medical Economics of The Medical Society of the State of Pennsylvania

The following report is submitted so that the members of The Medical Society of the State of Pennsylvania may read for themselves what is being done in other states and judge for themselves whether they approve or disapprove. The writer visited Washington, D. C., on May 27, 1934, and conferred with the Director of Group Hospitalization, Inc., and a representative of the Medical Society of the District of Columbia. The report herewith submitted and quoted is approved by the Director and is authentic.

This report attempts to trace the origin and development of the Plan up to the present date, and to supply arguments for and against it.*

It must be remembered that the Plan is not yet in operation, and no information is being given out as to how well it is being accepted.

While full credit is given to the intentions of the originators of the Plan and the faith of the local medical society in its administrators, there is nothing based on local experience that will demonstrate what such a plan may degenerate into if it becomes necessary, in order to attract enough subscribers, to modify some of the present qualifying requirements, enlarge the benefits, or extend the service to have certain hospitals withdraw, others continue, *etc.*

GROUP HOSPITALIZATION, INCORPORATED

WASHINGTON, D. C.

The Development of Group Hospitalization in Washington

The Hospital Administration Committee of the Health Committee of the Council of Social Agencies in studying the tremendous demand for charity hospitalization, also observed that there had been a steady increase in the number of charity cases over a long period of years, even during the era of prosperity.

Not only did the hospital care of the charity cases require large amounts of money both from public sources and private philanthropy, but the situation for the average man was, more frequently than not, painfully distressing. An examination of the figures indicated that the hospital costs were not excessive and that the chief cause of the average man's difficulty in paying was that he had been unable to anticipate these costs. It was in an effort to devise some means of enabling the average man to budget for his hospital care that group hospitalization was considered.

While the Secretary was studying the possibilities of group hospitalization, a commercial concern was seek-

* Additional details regarding the Washington, D. C., Insured Hospital Service Plan were published on page 676 of the May, 1934, PENNSYLVANIA MEDICAL JOURNAL. Director Henryson of Group Hospitalization, Inc., 1018 Vermont Ave., N. W., Washington, D. C., will willingly answer requests for information, such as Terms on Subscriber's Certificate, or Application for Participation in the Plan, *etc.*

ing to interest one of the community hospitals in a plan of group hospitalization. Since the plan of the commercial concern involved only one hospital, it was obvious any arrangement of this sort would definitely interfere with the private practice of medicine. Therefore, the Hospital Administration Committee, above referred to, called a meeting to discuss group hospitalization and invited the two salesmen to present their plans.

After this presentation it was decided that if group hospitalization were desirable, it should not be operated by a commercial concern, but by a nonprofit organization whose sole interest would be that of the whole community. Not anxious, however, to embark on an enterprise without sufficient consideration, a special committee was set up of approximately thirty persons, representatives of the interests of the hospitals, the medical profession, the employers, civic interests, and the general public. This special committee set up a number of subcommittees, each to consider the various aspects of group hospitalization: one studied the relationship of group hospitalization to the medical profession; another considered the legal aspects of group hospitalization; another concerned itself with actuarial data; another contacted employers to learn of their interest and attitudes; and another concerned itself with the provisions to be offered.

The reports of each Committee were available to other committees and at a meeting in which the results of all committees were reported, the Committee of Group Hospitalization accepted the reports and prepared a prospectus of a plan which they felt assured would meet with the approval and coöperation of the medical profession, the hospitals, the employers, and the general public.

This plan was then submitted to the boards of each hospital and, when it received the approval of all, a corporation was set up on a nonprofit basis to inaugurate and operate group hospitalization.

Applications from prospective subscribers are now being accepted. The minimum group accepted is ten, which by the way, must be at least 40 per cent of the total eligible personnel in the organization which seeks to establish a group. The plan will be thrown into operation at such time as the Board of Trustees may decide. The corporation deals only with groups and the method of payment is either by payroll deduction or payment through some individual designated by the employer or the employee to be group treasurer.

THE COMMITTEE TO CONSIDER THE RELATIONSHIP OF GROUP HOSPITALIZATION TO THE MEDICAL PROFESSION

One of Washington's outstanding surgeons was appointed as the chairman of the Committee to Consider the Relationship of Group Hospitalization to the Medical Profession. Besides the chairman, the committee was composed of the president of the District Medical Society, the dean of a medical school, a physician superintendent of a hospital, and a leading physician.

This committee was charged with considering group hospitalization from the point of view of the medical profession and with offering recommendations as to the principles which should be followed in order to protect in every way the relationship of the physician to his patient and to assure that the ethics, ideals, and the traditions of the profession would be observed.

This subcommittee of the Committee on Group Hospitalization, all physicians, consulted with other members of the profession, both individually and in the or-

ganized society, and their recommendations were observed to the letter in building the plan which was finally adopted.

When the plan was finally perfected, as the result of further conference, both the plan and the organization set-up were endorsed, first, by the Hospital Committee of the Medical Economics Committee of the Medical Society; second, by the Medical Economics Committee; and third, by the Medical Society of the District of Columbia.

Your chairman, making inquiries while in Washington regarding objections to the proposed Plan, was inspired by the following: First, the position taken by the Board of Trustees of our State Society, as published in the December, 1932, PENNSYLVANIA MEDICAL JOURNAL, which position was offered as a "guide to the responsible representatives of all our component county medical societies when approached regarding a Hospital Aid Plan," and second, by the more recent criticisms of such plans reduced to 16 objections by the Economics Commission of the Philadelphia County Medical Society. Here follow the 16 criticisms with refutations offered by the Washington, D. C., proponents:

THE WASHINGTON PLAN AND THE MEDICAL PROFESSION

"The organized medical profession is opposed to hospital insurance schemes for the following reasons:

"1. The physician is exploited by the hospital or contracting corporation."

Answer: The profession is not exploited. It is benefited. The subscriber cannot enter the hospital except on the authorization and request of his own physician. Since the patient needs to make no further outlay for his hospitalization, he is in better position to pay the fees of his physician.

"2. Such plans necessitate solicitation of patients."

Answer: The Washington Plan solicits no patient. It offers to groups of employed persons an opportunity to budget for their hospital care. The subscriber's application states that, to the best of his knowledge, he is in sound health.

"3. Free choice of physician is limited."

Answer: The Washington Plan does not limit the free choice of a physician. It merely provides that the subscriber's physician, as at the present time, be a member of or acceptable to the staff of the hospital to which admission is being sought.

"4. A third party participates in the income from medical service to the extent of from 10 to 30 per cent."

Answer: No medical service is involved in the Washington Plan. With reference to hospital care, the corporation is set up on a nonprofit basis. The trustees and officers devote a great amount of time to it and receive no pay. The office staff is merely sufficient to present the plan to some of the interested groups and to maintain accurate records efficiently. Any surplus accruing, since it is a nonprofit corporation, will inure to the benefit of the subscribers.

"5. Underbidding for business by competing organizations reduces the income for medical service."

Answer: There is no medical service involved in the Washington Plan.

"6. Destructive competition develops between professional groups."

Answer: In Washington, the hospitals are not engaged in contracts with competing organizations. At present every community hospital accredited by the American College of Surgeons (except Children's Hospital, which does not accept the type of patients hos-

pitalized by the plan) is a member of the group hospitalization organization.

"7. Deterioration of the quality of medical service ensues."

Answer: There is no medical service involved in the Washington Plan.

"8. The personal relationship between physician and patient is disturbed."

Answer: This is not true of the Washington Plan, for in this Plan the relationship between the physician and his patient is preserved.

"9. They will result in unfair competition between the staff members and outside practitioners."

Answer: There is no unfair competition between the staff and outside practitioners. The subscriber chooses his own physician, and cannot be admitted to a hospital except on his authorization.

"10. They will result in disorganization of the medical profession."

Answer: Group Hospitalization, Incorporated, of Washington, coöperates in every way with the medical profession. The Medical Society of the District of Columbia has approved its plan and its organization *in toto*.

"11. They destroy the individuality and dignity of the physician by placing him under control of the hospitals and companies operating the scheme."

Answer: In Washington, the relationship of the physician to the hospital has changed in no way, and Group Hospitalization, Incorporated, does not recommend or even suggest a choice of either doctors or hospitals to its subscribers.

"12. They exaggerate the demand for hospitalization."

Answer: Group Hospitalization does not exaggerate the demand for hospitalization. It merely makes it possible for the subscriber who *needs* hospitalization to get it.

"13. They permit those of ample means to purchase medical service at the same price as offered to the low income groups, thereby seriously affecting the legitimate income which physicians would receive from those able to pay an adequate fee."

Answer: This is not true of the Washington Plan. Group Hospitalization, Incorporated, in its plan offers strictly hospital care. Hospital care and medical care should not be confused.

"14. They do not provide for the care of persons in the higher age groups; *i. e.*, 55 to 60 years and over, nor in the groups of the very young."

Answer: The Washington Plan provides for the care of cases from 16 to 65 years. Only employed persons are accepted. If it be held that the plan is not yet broad enough, it will be noticed that it does protect the most important economic unit of the family—the wage earner.

"15. They do not provide for medical care during epidemics, or for the chronically ill; *i. e.*, the tuberculous, mental, *etc.*"

Answer: The Washington Plan does not provide for medical care during epidemics or at any other time. It does provide hospital care to its subscribers during epidemics or at other times up to the capacity of its member hospitals. It does not offer hospital care for pulmonary tuberculosis (after diagnosis as such), venereal disease, quarantinable diseases, alcoholic or drug addicts, mental disorders, or hospital care provided for under the Workman's Compensation Law.

"16. They are contrary to sound public policy."

Answer: Instead of being contrary to sound public policy, Group Hospitalization, Incorporated, has been set up on such a basis that it will be most helpful to the community and the public. It is set up with competent legal advice, on a sound actuarial basis, and is administered for the public good by citizens of unquestioned integrity.

The question has been asked: Is Group Hospitalization an entering wedge for state medicine?

"As set up in the Washington Plan, Group Hospitalization is *not an entering wedge to state medicine*. It will tend to postpone the entry of state medicine. It is a plan to enable the eligible citizen to pay his own share in hospitalization. If the plan were not launched, many of these average men and women would be forced to take advantage of not only public charity hospitalization (state hospitalization) but public charity medical care, a form of State medicine."

OF INTEREST TO THE MEDICAL PROFESSION

Concerning the Washington Plan, developed through consultation and coöperation with the medical profession, it will be of interest, from the point of view of the profession, to know:

A. That each hospital member of Group Hospitalization must be endorsed by the Medical Society.

B. That no participating hospital may engage in the corporate practice of medicine according to the common use and interpretation of this term.

C. That no participating hospital may engage by contract, at the same time, in any other group hospitalization plan.

D. That in the membership of the corporation, the medical profession will have a representation equal to that of the hospitals, and also equal to that of the general public.

E. That a subscriber can be admitted to a hospital only through his or her private physician, and remain there only so long as under the care of such physician. This physician must be a member of the staff or acceptable to the staff of the hospital to which admission is being sought.

F. That Group Hospitalization or its employees, or officers, will make no recommendations or suggestions to any subscriber regarding the choice or selection of a physician or hospital.

G. That the plan confines itself strictly to hospital care.

H. That the benefits offered members do not include the services of the subscriber's attending physician or surgeon, radiologist, pathologist, physiotherapist, anesthetist, special nurses, or their board.

I. That the plan has nothing to do with clinics or outpatient departments.

J. That the plan should be of value to the physician for it may help him to be more successful in his treatment of his patients. It will give him the advantages of the modern apparatus and equipment of the hospital which might not be available if the patient were unable to afford hospitalization.

K. That, while medical service must be donated by a physician or given by a member of the staff to cases requiring charity hospital service, subscribers to group hospitalization will come to the hospital as full-pay patients, and this will enable the physician to retain his patient without disturbing the relationship existing between them.

L. That, since the patient needs to make no further outlay for his hospitalization, he is in better position to pay the fees of his physician.

Committee on Medical Economics

EDWARD L. BORTZ, Philadelphia,
WALTER S. BRENHOLTZ, Williamsport,
LEONARD G. REDDING, Scranton,
MAX H. WEINBERG, Pittsburgh,
PHILIP J. LUKENS, Ambler, *Chairman*.

WORKMEN'S COMPENSATION COMMITTEE

The recently created and appointed Committee on Workmen's Compensation Laws held its organization meeting in Harrisburg on June 21. Under the chairmanship of Calvin M. Smyth, Jr., M.D., and the secretaryship of Edward Pardoe, M.D., after a general and free discussion participated in by the members present, as well as by the President, the President-elect, and the Secretary of the State Society, it was decided to endeavor, in an amicable frame of mind, to enlist the support of all the interests concerned in the administration of the Workmen's Compensation Law in behalf of amending same looking toward improved service to its beneficiary, the injured employee.

The committee will concentrate its endeavors to bring about the adoption of amendments to Pennsylvania's Workmen's Compensation Law that will result in:

1. Extension of time limit for medical service to the injured.
2. Extension of financial limit for medical service to the injured.
3. Granting the physician a definite standing at law.
4. Liberalization in the direction of the choice of physician by the injured employee.

The committee will meet in Harrisburg again early in August and its members will in the meantime be pleased to hear from interested persons throughout the State. To this end we append the names of the members of the committee with their respective addresses:

George H. Cross, M.D., 525 Welsh St., Chester.
Charles Falkowsky, Jr., M.D., Medical Arts Bldg., Scranton.
Lewis K. Ferguson, M.D., 6390 Drexel Road, Overbrook.
George W. Hawk, M.D., Sayre.
George L. Laverty, M.D., 226 State St., Harrisburg.
William H. Mayer, M.D., Jenkins Arcade, Pittsburgh.
Franklin P. Phillips, M.D., Box 555, Franklin.
Loyal A. Shoudy, M.D., Box 559, Bethlehem.
Edward Pardoe, M.D., *Secretary*, 531 Locust St., Johnstown.
Calvin M. Smyth, Jr., M.D., *Chairman*, 2021 Spruce St., Philadelphia.

THE GEORGE A. KNOWLES' MEMORIAL FUND

A Committee has been selected to raise funds to be known as the George A. Knowles' Memorial Fund.

It has been approved that a bronze bust of Dr. Knowles be made and placed in the Memorial Room of the Philadelphia County Medical Society Building; and the funds remaining constitute the George A. Knowles' Memorial Fund of the Philadelphia County Medical Society Aid Association.

The benefits that accrued as a result of the activities of the late Dr. Knowles are sufficient justification for soliciting a contribution from the members of The Medical Society of the State of Pennsylvania.

Kindly sign the accompanying blank, and make a remittance, no matter how small.

RALPH GETELMAN, *Chairman*.

THE GEORGE A. KNOWLES' MEMORIAL

Franklin M. Crispin, *Secretary*,
GEORGE A. KNOWLES' MEMORIAL FUND,
21st and Spruce Streets,
Philadelphia, Pa.

I hereby enclose \$..... as a contribution to the George A. Knowles' Memorial Fund.

Name
Address
.....

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contribution to the Fund:

Woman's Auxiliary to Allegheny County	
Medical Society	\$326.00
Total contributions since 1933 report	1,480.00

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since May 21. Figures in first column indicate county society numbers; second column, State Society numbers:

May 21	Greene	29	7058	\$7.50
	Wayne-Pike	23	7059	7.50
	Bucks	58	7060	7.50
	Luzerne	308-309	7061-7062	15.00
24	Potter	13	7063	7.50
	McKean	39	7064	7.50
	Monroe	19	7065	7.50
26	Berks	137, 156-157	7066-7068	22.50
	Philadelphia	1645-1766	7069-7190	915.00
28	Bradford	39	7191	7.50
29	Schuylkill	150	7192	7.50
	Beaver	84	7193	7.50
31	*Allegheny	1289-1292	7766-7769	30.00
	Allegheny	1093-1256	7194-7357	1,230.00
	Monroe	20	7358	7.50
	Bucks	59	7359	7.50
June 1	Venango	51	7360	7.50
5	Columbia	32-33	7361-7362	15.00
8	Lackawanna	221-222	7363-7364	15.00
9	Westmoreland	149-151	7365-7367	22.50
	Philadelphia	1767-1812	7368-7413	345.00
11	Indiana	48-49	7414-7415	15.00
	Schuylkill	146-151	7416-7417	15.00
	Carbon	38-39	7418-7419	15.00
	Indiana	50	7420	7.50
13	Lancaster	160-165	7421-7426	45.00
	Tioga	22	7427	7.50
14	Luzerne	310-312	7428-7430	22.50
	Fayette	110-111	7431-7432	15.00
	Schuylkill	152	7433	7.50

* 1933 dues.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to June 15:

ALLEGHENY: *New Members*—Robert G. Diess, 205 Eighteenth St., Sharpsburg; John P. Henry, Mercy Hospital; Joseph A. Perrone, Mercy Hospital; Joseph W. Pincus, 1854 Center Ave.; Sara E. Schwerer, 860 Ford St., Craiton Heights, Pittsburgh. *Reinstated Member*—Harry A. Klee, Carnegie. *Transfer*—Samuel V. King, 501 Stambaugh St., Sharon, from Mercer County Society. *Removals*—John W. Laufer from Pittsburgh to 123 Broad St., Jersey Shore (Lycoming Co.); James F. Johantgen from Pittsburgh to Dansville, N. Y.

ARMSTRONG: *Removal*—David I. Giarth from Ford City to Kittanning.

BERKS: *New Member*—Max Echenberg, Centerport. *Removal*—Ronald McIntosh from Reading to Norristown State Hospital, Norristown (Montgomery Co.).

BRADFORD: *Reinstated Member*—Russell H. Person, Athens. *Death*—Philip G. Biddle, Dushore (Jeff. Med. Coll., '97), May 21, aged 67.

BUCKS: *Death*—William S. Erdman, Buckingham (Med. Chi. Coll., Phila., '96), April 7, aged 65.

CARBON: *New Members*—Marjorie D. Batchelor, 117 Columbia Ave., Palmerton; Walter M. Smith, R. D. 2, Lehighon.

CHESTER: *Death*—J. Huston Johnson, Glen Moore (Jeff. Med. Coll., '07), April 26, aged 58.

CLEARFIELD: *Death*—Harry A. Vosburg, Jr., Du Bois (Jeff. Med. Coll., '12), May 18, aged 45.

COLUMBIA: *New Member*—F. C. Sommer, Bloomsburg.

CUMBERLAND: *Removal*—George S. Watkins from Shiremanstown to 317 S. Market St., Mechanicsburg.

DAUPHIN: *Removal*—Benjamin Halporn from Har-risburg to 28 Main St., Oberlin.

DELAWARE: *Resignation*—Winfield W. Lattomus, Wilmington, Del., formerly of Swarthmore.

ERIE: *Removal*—Ross W. Thompson from McKean to 3204 Buffalo Road, Wesleyville.

FAYETTE: *Removals*—Edwin B. Guic and R. R. Morrison from Dunbar to Dublin. *Death*—James L. Junk, Connellsville (Univ. Pa., '07), May 20, aged 55.

FRANKLIN: *New Member*—Gordon E. Hanna, Waynesboro. *Removal*—G. W. White from Mercersburg to Camp 80, Masten.

GREENE: *Resignation*—Carl L. Lutz, Rices Landing.

INDIANA: *Death*—Frederick W. St. Clair, Indiana (Univ. Pgh., '13), June 6, aged 48.

LEBANON: *Death*—Alfred S. Weiss, Lebanon (Med. Chi. Coll., Phila., '03), April 2, aged 55.

LUZERNE: *New Members*—Thomas H. Murphy, 505 Main St., Duryea; Barney A. Stegura, 614 S. Hanover St., Nanticoke; Lotzi J. Vercusky, 536 Center St., Freeland.

McKEAN: *New Member*—Lewis K. Armentraut, Kinzua.

MONTGOMERY: *Reinstated Member*—Nathan W. Rubin, Norristown. *Deaths*—Howard H. Drake, Norristown (Jeff. Med. Coll., '78), May 19, aged 77; S. Metz Miller, Norristown (Jeff. Med. Coll., '02), May 24, aged 68.

NORTHAMPTON: *Death*—William P. O. Thomason, Easton (Jeff. Med. Coll., '97), April 28, aged 63.

PHILADELPHIA: *New Members*—Harry Cherken, 2203 N. 16th St.; Joseph R. Criswell, 1737 Chestnut St.; Clare N. Davis, 3648 Chestnut St.; Thomas J. English, 1707 Ritner St.; Herman Kleinman, 209 Wolf St.; Michael P. Primiano, 1620 Ellsworth St.; Anthony Simeone, 2060 E. Allegheny Ave.; James M. Surver, 1832 Spruce St., Philadelphia. *Reinstated Members*—Harry K. Katz, 1206 Cottman St.; Michael Platt, 5932 Spruce St., Calvin M. Smyth, Jr., 2021 Spruce St., Philadelphia. *Resignation*—Raul R. Betancourt, Camden, N. J. (to join N. J. State Society). *Deaths*—Carl Lee Felt, Philadelphia (Univ. Pa., '94), recently, aged 64; Max R. Gabrio, Philadelphia (Jeff. Med. Coll., '13), recently, aged 50; Horatio Pilkington, Philadelphia (Univ. Pa., '79), recently, aged 78; William Van Korb, Philadelphia (Med. Chi. Coll., Phila., '98), April 17, aged 66.

WARREN: *New Member*—William K. Skinner, State Hospital, Warren. *Deaths*—George T. Pryor, Sheffield (Univ. Buffalo, '82), recently, aged 74; Richard B. Stewart, Warren (Coll. Phys. & Surg., Balt., '81), March 26, aged 73.

WASHINGTON: *New Members*—Edgar W. Mahan, Main St., West Alexander; Michael Krosnoff, Scenery Hill; Earl R. Knox, Claysville.

WESTMORELAND: *New Member*—Charles L. De Priest, 101 Main St., Mt. Pleasant. *Removal*—Paul H. Christian from Torrance to St. Marys, Ga.

YORK: *New Member*—Robert R. Stoner, Jr., York Springs. *Death*—Charles W. Eisenhower, York (Jeff. Med. Coll., '03), May 21, aged 62.

COMMITTEE ON SCIENTIFIC WORK

RICHARD A. KERN, M.D., *Chairman*
Philadelphia, Pa.

PROGRAM OF THE SECTION ON PEDIATRICS

The officers of the Pediatric Section of the State Society will present a program surpassed by none. As has been the custom the Pediatric Section will be opened with a luncheon in the Nurses' Home of the Wilkes-Barre General Hospital, all visitors being the guests of that institution. Following the luncheon there will be a two-hour Clinic given by the Luzerne-Lackawanna Pediatric Society. This Society includes the pediatricists of both Luzerne and Lackawanna Counties. They have at present a large collection of rare and interesting cases to be presented.

In order to break away from the monotony of having a half-dozen "Case Reports" follow each other, this year's program has been so arranged that each hour period will include one 10-minute case report, three 15-minute papers, and a 5-minute discussion period. So far as possible the participants have been selected on a geographical distribution, however always keeping in mind that the men accepted must be capable of presenting their subject in a learned fashion. The subjects selected include all aspects of pediatrics from the newborn to adolescence. Because of the present tendency of early vaccination and the rare occurrence of encephalitis following this procedure, a "Case Report of Postvaccinal Encephalitis in Siblings" will be presented. Diabetes mellitus in children very often is improperly handled, and this disease is not as rare as generally thought. This subject will be ably handled by a man who is specializing in diabetes particularly in children. Much stress has been made on the early diagnosis of acute appendicitis in children, this disease is very often a difficult situation for pediatricists as well as for the general practitioner. A résumé of the present knowledge of "Appendicitis in Children" will be discussed with the hope that we may reduce our present mortality.

Many other subjects which are interesting and very important not only to pediatricists but also to the general practitioner are included such as:

"The Prognostic Value of the Schilling and Filament Blood Counts"; "The Significance of

the Intelligence Quotient"; "Emmresis"; "Birth Shock"; "Bronchial Asthma"; and "Scarlet Fever Immunization."

Two outstanding guest speakers will discuss timely subjects.

COMMITTEE ON PUBLICITY

LEWIS T. BUCKMAN, M.D., *Chairman*
Wilkes-Barre, Pa.

OCTOBER AND VACATION

Make your trip to Wilkes-Barre and the annual meeting of The Medical Society of the State of Pennsylvania the occasion for your summer vacation this year. Come to northeastern Pennsylvania in early October and learn the delight of a holiday in one of the most naturally beautiful sections of the State.

If you come by train from the east, plan your arrival at night, so that as the train comes over the mountain and commences the descent to the valley you may have the privilege of the inspiring vista of widespread mystery of twinkling lights outlining the geometrical designs of the teeming municipalities spread out on the floor of the valley below you. Probably in no place in the United States is such a view obtained except in the approach at night from the mountains above Butte with the lights of the city and its smelters twinkling and blazing in the valley below.

If by motor, come by day. Those from Philadelphia and the eastern border of the State will enjoy the wild beauty of the Poconos or the rugged mountainous region of Hazleton and the southern end of Luzerne County with their unsurpassed valleys checkered with farm lands of matchless beauty.

From the northwest the Sullivan Trail leads along the Susquehanna River through the Blue Ridge foothills with surprising mountain top vistas for miles of river, farm land, and forest. Follow the route taken by General Sullivan in his campaign against the Six Nations. Come into the Wyoming Valley at its northern gate and as the mountains give way on either side, see the charming urban and suburban development of the industrial region stretching for twenty-five miles along the river, the true anthracite capital of the State.

Approach the valley from the south and the southwest along the Appalachian Scenic Highway. Enter at the southern gateway in the mountains past the point where anthracite was first mined. Come to Wilkes-Barre where anthracite was first burned, and receive a welcome surpassed in warmth only by the heat of the glowing fire imparted by that same king of fuels.

Play golf at the beautiful Irem Temple course in the mountains west of the city. Go on to a visit at Harvey's Lake, beauty spot in the hills, the largest natural lake in the State. Further into the mountains lies Lake Canoga, the highest lake in the State. See the historic spots of the Wyoming Valley marking the battlefields on which fought the Yankee and Penn's Men, the white man and the Indian.

Come not just for a meeting; come for a vacation, an unusual trip, a hearty welcome, and a memory that will linger long after this October is past.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

Advisory Medical Committee's Report for Bucks County, Pa.—The Medical Committee to the Emergency Relief Committee had two meetings in May at Doylestown for the consideration of bills. All the bills were viewed. Many were reduced in amount, some were returned, and some were rejected.

The greatest criticism was found with amounts. Uncomplicated cases of measles, sore throats, influenza, bronchitis, etc., were found to cost \$10 to \$20. Some bills were incomplete in information. Some exceeded the 48-hour limit. Some few were chiselers.

Bills must be properly filled out, they must be the minimum, and there must be absolutely no attempt to boost work. Office calls can not be converted into house calls.

Dental and pharmacist bills were no improvement on medical bills. Prices for the same prescription ranged from 25 to 90 cents. Some few still prescribe cod liver oil and proprietary drugs.

Some dentists show a special ability of finding more than one cavity in the same tooth. This efficiency is excellent but then the Emergency Relief Board say "fill all the cavities for \$1.00." One dentist extracted one patient's 28 teeth. Could they have been emergencies?

Suggestions: Make accurate diagnoses. Treat all at the office that is possible. See that your medical orders are filled out properly. While all know that we are doing more work for nothing than any profession or business, this is not the place to make up for past losses.

Watch your nursing orders. It is not right to ask your nurse or allow her to see your maternity patients daily for 8 calls when you know it is not necessary, or that if these patients were not getting it for nothing they would be weeding the garden, or scrubbing the pantry by the time you had your back turned. The fund allowed for this work is limited and it behooves doctors, dentists, pharmacists, and nurses to preserve this and make it reach as many needful as is possible.

The work of the committee was made easier and much more efficient by the presence of the president of the dental committee, and the pharmacists' committee in full.—*Bucks County Medical Monthly, June, 1934.*

Additional Articles on E. M. R. in Pa.

Modification Emergency Medical Relief Service Plan—p. 851.

Group Hospitalization—p. 852.

COMMITTEE ON MEDICAL ECONOMICS

PHILIP J. LUKENS, M.D., *Chairman*
Ambler, Pa.

MEDICAL ECONOMIC PROBLEMS IN PENNSYLVANIA

Analysis of the Questionnaire Distributed by the Committee on Medical Economics, May, 1934

The Committee, before launching upon any extensive excursion into the economic field, thought it best to make some effort to ascertain the extent to which the profession at large was harassed by distressing economic conditions, and to estimate the real need for taking any aggressive, remedial action. The questionnaire, recently sent to the 60 component county medical societies of The Medical Society of the State of Pennsylvania, was made brief in order that the very heart of the subject might be disclosed.

At present writing, 40* county societies have responded, 77% of the total.

Regarding question No. 1: "Is there a committee on medical economics in your county medical society?" Fourteen replied "Yes." Nine stated that their public relations committees were doing such work. (No doubt the latter committee has thus functioned in other counties.) The Philadelphia County Society, which has an extremely active economics committee which has done a great amount of work, has not responded.

As to question No. 2: "What work has been done?" Twenty societies responded, "None." The remainder of the responding counties, 20, sent a variety of answers as follows: Allegheny County, very active in all matters pertaining to industrial medicine, credit agencies, examination of preschool children, maternal care, dispensary abuses, radio broadcasting, and Pennsylvania Health Day. Others report in line for ethics, working for the best interests of the doctors and the care of the poor; the public relations committee held several meetings; very little, but the doctors are beginning to recognize the importance of medical economics; attempting to obtain fee choice and fee basis for treating the indigent; members agree to take care of the sick poor unless the cases come under the Emergency Relief Board; one public meeting held one year ago, checked up on all questions relating to economics in the practice of medicine; public health programs and health talks given in all the high schools; we have the cooperation of the doctors in all relief work; establishing central investigating bureau for all hospitals and clinics (Lackawanna); supervising clinics and trying to put doctors on lay boards; several public meetings and attempting to make health survey of county (Montgomery); established fee schedule, attempting to obtain fair fee for doctors testifying in court (York). Dauphin County has been very active in improving conditions for the doctor.

The outstanding counties which have been active in medical economics appear to be Allegheny, Lackawanna, Lehigh, Northampton, Philadelphia, and Dauphin.

Responding to question No. 3: "What are the future plans of your committee in the economic field?" Twenty-five counties answered "None." The remaining counties gave a variety of answers. Some expect to continue the activities which they have already started, principally examining preschool children in the doctors' offices and taking care of the sick poor, either free

* Six additional reports received too late for this analysis (46 of the 60 county societies have now replied).

of charge or under the provisions of the Emergency Relief Administration. Several counties state that they are meeting problems when they arise. A few remarked that they feel there is a tendency toward state medicine as evidenced by emergency relief. Others want to have the indigent, temporary and chronic, given medical care on the fee-for-service basis, allowing free choice of the physician. One society does not know what plans it has, and is waiting for suggestions, and has discussed the care of the indigent, trying to "stall off" state medicine. Another society said it had no plans for the future, had received no complaints from the members.

Question No. 4 was divided into 3 parts, so as to cover the 3 outstanding elements with which difficulties naturally have arisen, "What special problems obtain with (A) hospitals; (B) free dispensaries; and (C) contract practice?"

(A) With hospitals: Twenty-three counties, more than half of those replying, answered "None." One of these counties had no hospital. Of the remaining 18 about 7 claimed there was too much charity work being done in the hospitals; one responded that the hospitals were not competing with the doctors; another that the hospital had no free dispensary; there was no fee splitting and the hospital took care of every indigent who applied; one said there was insufficient investigation of charity cases; the need for hospitals for the care of contagious diseases was stressed by one; and the great need of hospitalization of chronics pointed out by another. One said the doctor was ignored.

(B) With free dispensaries: Thirty-four counties said there was no trouble with free dispensaries (75 per cent of those responding). Two said there was little, if any trouble. The balance asserted that the dispensary charity service was abused.

In Luzerne County at first free visit to dispensary patient must bring note from doctor.

Allegheny County reported a reduction of 28 per cent dispensary attendance in the first 7 months during which their plan was in operation. They require a certificate of indigency. Most of the remaining counties that responded stated that the chief trouble is with people who can afford to pay and who are not sufficiently investigated, also patients are sometimes solicited. One county reports discontent among the doctors because of the activity of lay organizations in immunization campaigns in which those who can afford to pay are treated free.

(C) With contract practice? Thirty-six counties (80 per cent of those replying) reported no problems with contract practice. One county said each company doctor has his free clinic at the coal mines; another, contract practice is not prevalent; Cambria County reported increasing difficulty with contract work; Chester County reported one case; in Greene County all the mines in the county have contracts and the society has tried to control it without results; Lackawanna reports very little trouble; Lycoming reports not much contract practice; Venango, the same; and it is not serious in York County.

Discussion: It appears that only one-fifth of the county medical societies in Pennsylvania have economics committees, although about one-third of the societies are active in economics. The work varies from indifferent interest in the rural counties to extreme activity in the urban or metropolitan areas. Except in the urban areas, little organized work has been done along economic lines. Two-thirds of the counties, however, expect to do things, some a little, some much.

The economic problems of the county medical societies

are enlightening. One-third have no difficulties with hospitals, and with the remainder, the chief trouble is the excessive number of charity patients, some of whom could be shown to be able to afford medical service if they were properly investigated.

Three-fourths of all the counties report that they have no special problems with free dispensaries. Allegheny County presents the most striking example of teamwork in that dispensary attendance was reduced 28 per cent after requiring the certificate of indigency.

Contract practice causes no trouble in 36 of the 46 counties replying.

Committee on Medical Economics,

EDWARD L. BORTZ, Philadelphia,
WALTER S. BRENHOLTZ, Williamsport,
LEONARD G. REDDING, Scranton,
MAX H. WEINBERG, Pittsburgh,
PHILIP J. LUKENS, Ambler, *Chairman.*

County Society Reports

BERKS

May 8, 1934

The meeting was held at 3:15 p. m., in Medical Hall, Reading, President Ralph L. Hill presiding, attended by approximately 50 physicians and guests.

Robert Wheeland, of the urologic department, St. Joseph's Hospital, Reading, spoke on "Transurethral Prostatectomy," saying in part: There are but 3 major pathologic entities involving the prostate gland that cause vesical retention and that depend on operation for their relief or cure: Glandular hypertrophy, carcinoma, and median bars. Carcinoma of the prostate gland primarily may start in, and involve any portion of the gland. Obstruction is due to induration of all the structures about the vesical outlet with portional functional inhibition of the sphincter and trigonal muscles and the recognized narrowing of the posterior part of the urethra. Median bars are sites of fibrosis which by shrinkage cause stenosis of the vesical orifice with consequent retention of urine and all symptoms of prostatism. This bar formation is the result of long-standing infection with a marked degree of fibrosis.

The symptoms of the 3 principal types of prostatic obstruction, except for minor variations, are essentially the same. Frequency, hesitancy, straining, nocturia, and diminution in size and force of the urinary stream are the chief difficulties for which these patients seek relief. All that can be definitely said by the best trained examiner, from the history given, is that there is obstruction at the bladder neck. It is unfortunate that neither the patient nor the physician realizes these symptoms are danger signals. At this stage the patient may be relieved before irreparable kidney and cardiovascular damage has taken place. The sooner the patient consults the urologist the simpler is the problem. Procrastination means weeks of hospitalization and a mortality rate of from 10 to 20 per cent.

Definite classification of these conditions rests on rectal palpations of the prostate, residual urine tests, and careful cysto-urethroscopic studies. Cysto-urethroscopic studies demonstrate the final diagnostic evidence of the real condition and indicate the best type of treatment suitable to the individual case. Large benign hypertrophies and large carcinomata are seldom missed by rectal palpation alone. The cases with median lobes, bars, contractures, and intra-urethral encroachment of

small lateral lobes are the ones in which cystoscopy gives invaluable information.

The benign hypertrophied prostate as felt by rectal examination is usually symmetrically enlarged and rubberlike in consistency. Its borders are well defined and the median furrow separating the lateral lobes well preserved. Cystoscopically it is found to be pedunculated with clefts or fissures separating the enlarged lobes.

In patients with bars or contractures the prostate, if palpated rectally, is found to be nearly normal in size or it may be atrophic. Cystoscopically the prostatic urethra is not elongated nor constricted. A cystoscope inserted is often rigidly held in position by the inelastic contracted bladder neck. The bar is seen as a transverse ridge at the posterior portion of the vesical orifice and obscures varying degrees of the adjacent trigone from view.

The rationale of prostatic resection is based upon important clinical observations concerning changes in the obstructing prostate as the result of constant drainage of the bladder by suprapubic cystotomy or urethral catheter. It was shown that a shrinkage and decrease in the size of the gland often followed a period of drainage. On rectal examination a markedly enlarged, swollen, spongy prostate was often transformed into a slightly enlarged firm structure. Cystoscopic examination of the vesical orifice before drainage shows marked intravesical projection and urethral intrusion of bulging lobes whose surfaces exhibited greatly increased vascularity. On examination of the same patient after a period of bladder drainage, the intruding lobes had receded and their increased vascularity was no longer apparent. These regressive changes were most marked when the drainage was by suprapubic cystotomy. In some cases prolonged drainage was followed by sufficient shrinkage of the prostate to permit healing of the suprapubic wound and temporary return of normal urination.

These observations raised the question: "Would not removal of only the obstructing portion of the gland be followed by the same regressive changes in the unremoved portion and thus permanently restore bladder function?" This question was partially answered by Young from his experience with his punch operation in cases of median bar and contracture. He, and later Caulk, showed that the removal of small pieces of tissue by punch instruments effectively corrected the obstruction in bars and contractures. It should be noted that not all bars are cicatricial, a number of them consisting largely of glandular hyperplasia.

Caulk was so impressed by his results that he extended the use of his cauter punch to obstructions due to hypertrophy of the prostate. He demonstrated that, in the cases in which a small proportion of the total growth could be thus removed, there was usually relief of the obstruction and with it shrinking of the remaining part of the gland. This work of Caulk established the fact that relief of all types of obstruction could be obtained by transurethral resection should removal of the obstructing tissue by means of his punch be technically feasible. His contention that radical enucleation by open operation was not necessary in such cases has been repeatedly borne out.

As a result of this experience and histologic studies of the changes referred to, Caulk believes that benign prostatic enlargement is a form of inflammatory hyperplasia and is not neoplastic. Among others who subscribe to this belief are Ewing, Green, and Brooks.

This question is of significance in comparing the prospect for permanent relief by resection with prospective relief by open operation. If the enlargement is

not neoplastic, recurrence need not be expected when the obstructing tissue has been removed; and relief will be permanent if an adequate resection has been made.

Transurethral prostatectomy is rapidly replacing major surgical removal in the treatment of bladder neck obstruction. In a large series of reported cases, this method was found suitable in 90 per cent of cases. It is preferable to major surgery because of important advantages to the patient. These advantages are: Smaller risk to life than can be assured by the most satisfactorily conducted perineal or suprapubic operation; the assurance of as good functional results; a shorter period of convalescence without the distress imposed by prolonged drainage of urine and slow healing of the wound; and a substantial saving in the patient's finances.

The following should be emphasized: Regressive changes following bladder drainage alone occasionally permit the return of normal urination. Restoration of bladder function in these cases is only temporary, since the intruding tissue responsible for the obstruction is still present and will continue to interfere with urination, eventually setting into motion the same processes leading to obstruction of the bladder. The object of transurethral resection is to prevent such an occurrence by removal of the potential obstruction. The difference between enucleation and transurethral resection is only one of degree; neither is a complete prostatectomy. The lobular hypertrophied mass compresses the rest of the gland toward its periphery. Enucleation removes the lobular hypertrophied mass, leaving the surrounding compressed prostatic tissue. The urologic surgeon trained in cystoscopic resection need only consider enucleation of the prostate by open operation when contraindications for cystoscopic prostatectomy are present.

Transurethral methods should be employed in every case of obstruction caused by median bar or contracture. In carcinoma with obstruction, it is the best palliative procedure at our disposal and provides comfort to the patient through relief of the urinary obstruction.

A patient with prostatic obstruction is in a serious condition, and if surgery does not intervene, the patient will die of hydropneumothorax and uremia.

Cystoscopic prostatectomy should be performed by a thoroughly trained cystoscopist.

PEARL E. HACKMAN, *Reporter*.

BLAIR

May 22, 1934

The meeting was held in the Altoona Hospital, at 3:30 p.m. Benjamin L. Hull, of Altoona, read "An Essay on Physical Therapy." He showed that all electric modalities are adaptations of the same thing, *viz.*, electricity. The indications and contraindications for the various forms of therapy were stressed, and it was urged that physical therapy as a specialty should be kept in the hands of medical men and not in the hands of specialty salesmen and technicians.

JOHN D. HOGUE, *Reporter*.

CAMBRIA-SOMERSET

May 10, 1934

A public meeting, jointly held by Cambria and Somerset Counties' Medical Societies at the Johnstown Central High School; 1000 present. Walter C. Raymond presided. Samuel J. Waterworth, Clearfield, said in part:

This meeting is part of the program of the Cancer Commission of The Medical Society of the State of Pennsylvania of which Jonathan M. Wainwright is chairman. Dr. Wainwright is much interested in the holding of meetings by the medical men in the various cities and counties of the State together with the people that not only the doctors but also the people will have knowledge of cancer.

In order that they may better understand the work and aims of the Cancer Commission he gave a brief outline of Dr. Wainwright's report for the past year. (See page 831.)

The activities of the Cancer Commission are to stimulate physicians and surgeons to keen interest and alertness in recognizing not only the early manifestations of cancer but also to teach their patients as to the necessity of periodical examinations. This especially in the case of the childbearing woman whose womb and breasts should be regularly inspected at least once a year. If any departure from the normal is found then more frequent examinations are required. All symptoms referable to the stomach in patients of either sex should be brought to the physician's attention especially in those of the middle-age period. These symptoms should not be treated indefinitely by drugs or diet without first being sure by roentgen-ray diagnostic study that cancer or ulcer of the stomach is not present. All ulcers that do not heal promptly should be viewed with suspicion.

Cases of hoarseness lasting over a few weeks should be referred to a competent laryngologist for diagnosis. Chevalier Jackson states that these cases should be under suspicion as cancerous until proved innocent.

The Commission wishes the dentist to keep in mind the great opportunity he has of saving many lives by the early recognition of suspicious areas in the mouth. All know the great amount of good the dentist has done in teaching the necessity of oral hygiene and by his thorough work in removing diseased, roughened, and ragged areas from teeth that otherwise would give rise to chronic irritation which is one of the potent and frequent causes of cancer.

Therefore, while we hold no brief for any patent mouth wash, one should consult his dentist at least twice a year.

The Commission also wishes to promote the holding of a Diagnostic Tumor Clinic in each hospital no matter how small. A clinic, in which the pay patient as well as the charity patient may be presented to the clinic free of charge for diagnostic purposes only—the patient to be retained by the patient's doctor, the purpose being to give the patient and the doctor the benefit of advice of the group without cost to the patient and without disturbance of the relation of patient and physician.

The principal effort that can be put forth by all the doctors, general practitioners as well as specialists, is to make an early clinical diagnosis or if the diagnosis cannot be made without help, then the nearest Tumor Diagnostic Clinic should be used.

The physician cannot too often have called to his attention the necessity of examining patients before prescribing for them. All chronic sores and chronic swellings should be regarded with suspicion. This is especially the case if he is called upon to treat rectal troubles. The rectum should be examined with the gloved finger and also with the proctoscope before the patient should be given advice. Many cases of cancer of the rectum are overlooked until too late. A wide diffusion of the later knowledge of cancer will inspire many to do better work in early diagnosis and more successful treatment.

When a patient comes to the Tumor Diagnostic Clinic it is of the utmost importance to secure a good history from the patient and to put it down in black and white in order that it may be filed away for further reference and study and to make up the very necessary statistics which are of great advantage in the cancer research work which is being carried on at all times. An outline of the essential data which should be secured from the patient follows: Symptom for which sent to clinic; location of tumor. How did it start—trauma, chronic irritation, or other predisposing cause? When did patient first consult doctor? Did he make local examination? What advice did he give? Have other members of family or relatives had tumors? Onset, first symptom, date. Progress—pain, bleeding, discharge. Physical examination. Advice. All can fully realize the value and benefit such records would be.

In meetings of this kind he believes that the speakers do not sufficiently stress a phase of the cancer treatment that causes the loss of many lives and the waste of much money. John Dillinger and the other bandits who occupy the front page of the newspapers for weeks at a time—this is news, sensational news. The same newspapers perhaps are carrying an advertisement for some quack, a cancer cure faker, no less a bandit than John Dillinger. Dillinger preys upon well people at great danger to his own life. The cancer quack preys on the misery and suffering of the afflicted and their worried and troubled relatives and friends. He takes their money as dishonestly as Dillinger does and he is a murderer for he is the cause of many more deaths than a score of Dillingers and for money—but our law protects him.

The doctors present of course have no need for this warning but they have need to be warned against accepting newspaper articles with great headlines saying that Dr. John Doe, in California or Canada, has discovered, through scientific laboratory experiments, an improved treatment or seemingly a cure of cancer. The doctors making these announcements, up to date, have been premature. We of the medical profession should all try to keep such premature announcements out of the papers as lately a very sad spectacle was presented by thousands of persons crossing the continent only to meet with disappointment, many dying on the way or after arrival or on the way home, disillusioned and with depleted purses.

The laity should avoid the advertising doctor. Do not buy patent remedies to treat yourself on your own diagnosis. Go to your family physician first and follow his advice. If you have an ulcer and it is slow in healing your doctor should not be offended if you request a consultation.

What can the medical profession do for cancer patients? Very much if the disease is diagnosed early and treated radically by surgery or radio therapy, depending upon the location.

Bernard P. Widmann, Philadelphia, said in part: The medical profession realizes that it is absolutely necessary, if we are to make any progress with cancer, to make an early diagnosis. It is not always an easy procedure to make an early diagnosis. In all septic cases we treat them as cancer to be on the safe side.

It is not a dread disease to be feared. We should have confidence in a procedure which we know will cure cancer. Roentgen ray will cure certain types of cancer particularly early types. The modern treatment of cancer is surgery, roentgen ray, and radium.

We have had a sufficient experience with the various types of serum, with the various kinds of chemical preparations without any appreciable success.

Röntgen rays and radium are limited in their scope. Cancer of the skin can be cured 100 per cent we estimate.

It isn't always that the case should be treated early but the success in the treatment of cancer is to treat the case correctly at the first treatment. Many persons now have been operated upon successfully and their own families or relatives never know about it. People never hear about those cures. They always hear about the failures.

The public thinks that we should submit to them on a platter a cause and an explanation of cancer and a specific cure.

This problem of treating cancer is a real one. The success of the great crusade, this anticancer crusade which is world wide, will depend on the public knowing that surgery, roentgen ray, and radium will cure cancer in the early stages and that we have no control over any disease in its last stages.

George A. Stewart, Baltimore, expressed Dr. Bloodgood's regret in not being able to be present. This is the type of meeting in which he thinks we accomplish the most good. People are becoming cancer-minded. We hear more persons talking about cancer. There are more than 100,000 deaths every year from cancer. In addition, there are another 100,000 persons who are passing through the various stages of cancer. Then there is at least another 100,000 who are on the border line. It exists in the newborn babies, in childhood, in youth, in middle-age, or in old age. To cure it we must have an early diagnosis; we must educate the doctors; we must educate the people who go to see the doctor.

Some persons try everything that they can find to cure lumps on the body instead of going to see a doctor. Some go to quack doctors who only decrease their chances of getting well by injecting a serum. We know that no one has yet invented a serum which will cure cancer.

PAUL E. LAVELLE, *Reporter*.

CHESTER

May 15, 1934

The meeting was held at the Veterans' Bureau Hospital, Coatesville. Luncheon was served to the members of the medical society as well as the woman's auxiliary. Several of the physicians of the medical staff of the hospital presented various psychiatric cases. Functional types of mental disorders, including dementia precox and paranoia were discussed by Frank W. Schwarz. Meyer K. Amdur presented 12 cases of neurosyphilis, including several cases illustrating parietic manifestations. Two cases of alcoholic psychoses were presented by Dr. Day. Dr. Messinger discussed drug addiction and illustrated with graphs the method of reducing the doses of morphine. Dr. Hirshoff presented a case of food refusal and the patient revealed the various delusions, which prevented him from eating. Dr. Walker presented a case of pellagra without psychosis. Dr. Tighe gave a discussion of the rôle of the otolaryngologist in mental hospitals.

The Executive Committee recommended that: (1) School boards throughout the county be advised as to the proper duties of school physicians, and urged not to permit the school physician to enter into the practice of medicine in the school. (2) The society formulate a resolution protesting against physicians, employed by insurance companies, entering a community and seeing patients without notifying or consulting the family physician. (3) The president appoint a committee to study the matter of a mental hygiene clinic in Chester

County. The Public Health Committee has been very active in the carrying out of the Child Health Program. Printed forms will be supplied the physicians to make examinations of the various children in whom physical defects were found during the campaign last summer. The society opposes the program of the Emergency Relief Board to set up a medical referee in each county for the purpose of supervising the compensation cases in the county. The Chester County Medical Society was not in sympathy with this further attempt to regulate medical practice, and the attitude of the president of the State Society was to be sought at once in this matter.

JOSEPH SCATTERGOOD, JR., *Reporter*.

CLARION

April, 1934

The meeting was held in the Ross Memorial Building in Clarion, President Clement E. Sayers, of Hawthorn, presided; 15 were present.

N. C. McCullough read a paper on "Gastric and Duodenal Ulcer," saying in part:

The 2 lesions, gastric and duodenal ulcer, are apparently quite similar processes.

The medical treatment of peptic ulcer is based entirely on the following principles: (1) The reduction of or the complete neutralization of gastric acidity, which is accomplished by a variety of methods: Giving of alkalis; aspiration of gastric juice; diet, carbohydrates and fats, foods that stimulate little or no acid formation; drugs, tincture of belladonna, which inhibit acid formation; absolute restriction of alcohol and tobacco both of which have produced increased gastric acidity experimentally; psychic factors, the elimination of mental strain and conflict both of which increase gastric secretion; frequent small feedings which prevent a maximum acidity or the collection of a large amount of gastric juice in the stomach; and, antispasmodics allowing duodenal reflux.

(2) A bland nonirritating diet devoid of roughage which is merely a mechanical device to prevent further erosion or the erosion of the healing process in the ulcer. (3) Foods which leave the stomach quickly, a method which gives the stomach a maximum of rest. This method is only employed by Smithies. (4) Removal of all foci of infection. (5) Hot or cold foods or drinks, spices, and condiments are forbidden as they are gastric irritants.

Pylorospasm, which can be definitely demonstrated fluoroscopically during the active stages of peptic ulcer, is a most important factor in the continuation of peptic ulcer symptoms and while one cannot settle upon the order of appearance it is quite possible that pylorospasms follow the appearance of the ulcer, whatever its cause, and precede the hyperchlorhydria.

As to surgery, unless recurrent bleeding compels immediate operation, there is no time at which patients are less well equipped to endure gastric operations; there is no time at which the mortality of gastric operations will be higher than immediately after massive hemorrhages.

It is wiser with all patients, except those with repeatedly recurring hemorrhages to delay operative procedures until the immediate effects of the hemorrhage have been completely overcome and the patient has regained, at least in some measure, his or her vascular balance.

Patients who show bleeding from their ulcers as the result of nonadherence to the dietary régime, should not necessarily be operated upon at the first bleeding,

but should be warned of their danger, urged to adhere strictly to the dietary scheme, and operation be urged if the bleeding recurs whether or not there has been adherence to the scheme of management.

Pyloric obstruction used to be an immediate indication for surgical treatment of gastric and duodenal ulcer. Many cases of pyloric obstruction occurring in patients during the acute stages of their ulcer are the result of edema and spasm at the pylorus, and such a condition is not an indication for immediate surgery, since so many of these cases are relieved of their obstruction by nonoperative measures.

If all gastric ulcers are resected or explored and then resected many patients will have been needlessly operated upon, and of this number, certainly, a few will have died needlessly.

From 6 months to 3 years under medical treatment are required for a chronic lesion to disappear, while acute lesions vanish in as short a time as 2 weeks.

Concerning the treatment of peptic ulcer, supervision covering a period of many years is essential and the price of eternal cure is eternal vigilance whether medical or surgical.

JAMES M. HESS, *Reporter*.

DAUPHIN

June 5, 1934

The meeting was held in the Academy of Medicine Building, June 5, at 8:45 p.m. President E. Kirby Lawson presiding.

John T. Burnite spoke on "Factors Pertaining to Reproduction." The rate of sterility in the United States has increased 20 per cent while the rate of fertility has decreased at an equally alarming rate. If the present situation is not remedied the race faces early extinction.

Fertility was formerly considered a blessing; but with the overemphasis of materialism, selfishness, and the stand that many women take against pregnancy and motherhood, the problem becomes more serious than many realize. The integrity of the home was formerly upheld by its home life, recently, however, home life is taking its place along with other rapidly disappearing institutions.

Syphilis plays a part in sterility. Endometritis causes a thickening of the endometrium with the result that the fertilized ovum is readily cast off. Fibroid tumors that cause the uterus to contract may render it unlikely that the ovum will have a chance to become embedded. Retrodisplacement with venous engorgement may be an unfavorable condition for implantation.

Mental incompatibility may interfere with propagation. There may be physical reasons present. The sperm may lack vitality or motility or even virulence to find its way to the ovum. Gonorrhea is one of the greatest causes of sterility, 25 to 50 per cent caused by this disease.

Josiah F. Reed read a paper on "Contraceptives, Ancient and Modern." He gave a résumé of the various procedures well known to lay and medical groups.

Dr. Reed, in concluding, stated that in collaboration with three coworkers a solution has been developed that if applied to the uterus will assure the patient freedom from impregnation for that month. The solution is harmless not only to the endometrium but also to the abdominal cavity. Since it is necessary to dilate the cervix they have not presented their report on the solution for fear some one would perforate a uterus in dilatation of the cervical canal. This group has been using this solution for a 4-year period with no pregnancies.

SAMUEL B. FLUKE, *Reporter*.

[We are unable to find any justification for the statements made by Dr. Reed in his concluding remarks. If he has been associated with coworkers who have developed a meritorious technic, the medical profession is entitled to a report of the procedure, no less. To say that the report was withheld for fear "some one would perforate a uterus" is an unwarranted slap at the profession at large. What has been accomplished by presenting the paper?—EDITOR.]

LACKAWANNA

April 24, 1934

The meeting was held at the Chamber of Commerce, Scranton, with President Walter W. Propst in the chair. Lewis C. Scheffey, assistant professor of gynecology, Jefferson Medical College, Philadelphia, read a paper on "The Diagnosis and Treatment of Pelvic Malignancy." He said in part:

The first step in the prophylaxis of pelvic malignancy is the immediate and proper care of the lacerated cervix; repair without delay, the sooner after the puerperal state, the better. Cauterization has replaced the operative treatment of cervical laceration. Best results are obtained from multiple scarification with deep crucial cauterization. The nasal cautery tip is best used in the office, but a heavier tip may be employed in the operating room. In 3 to 10 weeks this procedure is generally followed by a clean result. The most common complication of this type of treatment is stenosis of the cervix, which may follow cauterization too deeply into the canal. If this is believed to be the case, pass a bougie or Kelly dilators before cicatricial tissue forms.

Cancer of the cervix may occur at any age and 30 per cent of all cases admitted to the Jefferson Hospital have been under age 40, and there is an increasing number of cases under age 35. The physician must investigate any irregularity of menstrual bleeding at any age. Of the cases seen at Jefferson Hospital, 95 per cent had passed the confines of the cervix when first examined. Too many women are prone to follow "back-fence advice"; many are too modest to mention it; others attribute the condition to "change of life." Far too often, the doctor is too busy to do a careful pelvic examination. There is no reason why the diagnosis cannot be made within 24 hours.

The two most characteristic signs of cancer of the cervix are: Ready bleeding to the touch; and fragility and friability of the tissue. The Schultze test, whereby the cervix is stained with an application of Lugol's solution, white areas showing potential cancer foci, may be of definite value. If in doubt, always take a biopsy. A biopsy can be taken in the office without pain to the patient. Study of the histologic types of cells is of much value in noting progression.

Treatment of cancer of the cervix is primarily by the use of radium in capsules and needles, placing 50 to 100 mg. radium in the cervix with radium needles placed about the external os. Surgical treatment should follow the use of radium, rather than precede it. The physician must personally follow up every cancer case with a complete examination at intervals, in order that return lesions may be immediately irradiated. Complications of such treatment are very few. There may be an acute, fulminating, pelvic inflammatory disease and occasionally, peritonitis. Cancer of the cervical stump has been seen in 0.5 to 5 per cent of cases in various series. The best method of treatment is complete hysterectomy, although cancer of the body of the uterus

is 8 to 10 times less frequent than that of the cervix. If there is any question of cancer of the fundus, do an immediate curettage. Have 50 mg. radium ready and insert. Laboratory studies of the curettings may give an immediate answer, although frozen sections are not always satisfactory. Careful study of paraffin sections should give the final answer.

In discussion, Jonathan M. Wainwright states routine postoperative examinations should be insisted upon. He has seen recently advanced carcinoma in a girl of 24, whose only symptoms was an occasional drop of blood after coitus. Three cardinal signs are: Bleeding; onset of a new discharge; and an increasing discharge with foul odor.

Lewis C. Scheffey, in closing, said that irregular vaginal bleeding is seldom seen until the disease is far advanced. Leukorrhea is so common and so variable that it is rarely considered an actual symptom. The youngest case on record is that of an infant age 22 months with adenocarcinoma of the cervix. Treated with roentgen ray, the child developed colitis and died of hemorrhage.

May 1

The meeting was held at the Chamber of Commerce, Scranton, with President Walter W. Propst in the chair. Howard F. Root, of the Joslin Clinic, Boston, Mass., during the afternoon, gave a demonstration of the oscillometric and thermometric methods of determination of early vascular lesions of the extremities in diabetes, and of dietary adjustments. His subject for the evening was "Practical Problems in the Treatment of Diabetes Mellitus." He said in part:

Diabetes has little to do with age. At age 70, one is no more likely to develop diabetes than at age 20. Actually if we knew more about the period of latency, the peak of incidence would probably be 10 years earlier. Arteriosclerosis, rarely, if ever, has anything to do with diabetes. Hereditary predisposition is the dominant factor in the etiology. Metabolic strain in the form of obesity will produce an increased incidence, but is more likely the precipitating factor in one with an inherited predisposition. In childhood diabetes, 1 out of 4 has diabetic relatives. Upon carefully checking the heredity for 5 years, 40 per cent will show coincident familial cases, and at age ten, 53 per cent have diabetes in the family.

In every hospital, treatment of diabetics is complained of because of its cost and the difficulties in diet kitchen and ward, principally because no 2 physicians have the same dietary régime or method of treatment. Insulin is not used enough. If every diabetic is carefully trained in the administration of insulin and continues in its use, there will be little difficulty with "reactions." There is no such patient as the mild case, for any patient can go into coma within 24 hours. The so-called mild cases are generally undertreated and die sooner than the severe, treated cases. All patients must be impressed with the need for frequent return visits to office or clinic. Should there be a tendency for hyperglycemia or hypoglycemia, it is well to insist upon collection of the urine in 4 periods, in order that a proper insulin régime may be instituted.

Only inadequate or absent insulin therapy will prevent normal growth of a diabetic child. Dwarfism is a complication which is generally caused by long periods without insulin. Hypoglycemia is particularly a problem in children and must be foreseen by frequent period urinary tests. These diabetic patients change their tolerance rapidly and when least expected. General physical examination must not be neglected, as well as

routine laboratory check-up. During the past few years at Joslin Clinic, 78 cases of anemia have been seen complicating diabetes.

Surgical complications increase annually. The same percentage of diabetics develop gangrene of the extremities regardless of climate. Resistance to infection in the tissues is much less than in nondiabetics. Tuberculosis is one of the most frequent complications. Among the children, 43 per cent had a positive Mantoux reaction.

Treatment of diabetes must include careful instruction of the patient. He must understand thoroughly the place of insulin and diet and the need of care when small infections are present. Urinalysis must be made a routine of daily life. Treatment of the feet must be made to assume utmost importance.

Instructions to the patient in regard to the care of the feet should include the following: Wash the feet daily with soap and water. Dry thoroughly, especially between the toes, using pressure rather than vigorous rubbing. When thoroughly dry, rub with lanolin as often as necessary to keep the skin soft and free from scales and dryness, but never render the feet tender. If the feet become too soft, rub once a day with alcohol. If the nails are brittle and dry, soften by soaking in warm water 30 minutes each night and apply lanolin generously under and about the nails, bandaging loosely. Clean the nails with orange-wood sticks. Cut the nails only in a good light and after a bath, when the feet are clean. Cut the nails straight across to avoid injury to the toes. All patients with overlapping toes or toes that are close together should separate them with lamb's wool. Patients with large joints or cramped-up toes should wear shoes without box-toes and only vici kid leather. All patients over age 60, should have daily rest periods at which time the shoes should be removed. Do not wear bedroom slippers, when shoes should be worn, as slippers do not give proper support. Wear shoes of soft leather which fit and are not too tight (neither narrow nor short). Wear new shoes one-half hour only on the first day and increase one hour daily. Do not step on the floor with bare feet. Use bed socks instead of hot water bottles, bags, or electric heaters. Every diabetic should have some one examine his feet every Sunday morning. After age 50 one hears less well, sees less well, and the sense of feeling is diminished.

When corns or callosities have appeared, they may be treated by wearing shoes which fit and cause no pressure. The foot should be soaked in warm, not hot, soapy water. The dead skin about the callus or corn should then be rubbed off with gauze, or filed off. Never tear it off or cut corns or callosities. Do not try to remove corns or calluses with patent or other medicines. Prevent calluses under the ball of the foot by exercises such as curling and stretching the toes 20 times a day and by finishing each step on the toes and not on the ball of the foot.

Cold feet and poor circulation may be treated by exercises: Bend the foot down and up as far as it will go 6 times. Describe a circle to the left with the foot 6 times and then to the right. Repeat this morning, noon, and night. Massage the feet with lanolin or cocoa butter. Do not wear circular garters, or sit with the knees crossed. Any patient who has had gangrene or who has been so threatened, should allow himself to be on his feet only 2 hours in the morning, 2 hours in the afternoon, and 2 hours in the evening.

Proper first aid treatment is of utmost importance even in apparently minor injuries. The physician should

be consulted immediately. Strong irritating antiseptics such as sulphonaphthol and iodine should be avoided. As soon as possible after injury, certain surgeons recommend the application of sterile gauze saturated with medicated alcohol or hexylresorcinol (S. T. 37). Keep wet for not more than 30 minutes. Elevate, as much as possible, until recovery; avoid using the foot.

May 8

The monthly business meeting was conducted by President Walter W. Propst at the Chamber of Commerce. A decided innovation was presented by J. Norman White, of Scranton. Illustrated by dozens of pictures thrown on the screen, Dr. White told the story of the medical background of Scranton and vicinity during the past 70 years. The lives of local pioneers in the profession were recalled by many anecdotes and personal experiences, making the evening one of the most pleasant and unusual of recent years.

FREDERIC B. DAVIES, *Reporter.*

LEHIGH

May 8, 1934

The meeting was held at the Allentown Hospital, Frank Boyer presided. The program was devoted to the diagnosis and treatment of tuberculosis. Frederick M. McPhedran, Henry Phipps Institute, Philadelphia, spoke on "Diagnosis and Roentgen-ray Indications for Treatment of Tuberculosis."

Louis Cohen, department of the chest, Temple University, Philadelphia, and Eagleville Sanatorium, outlined "Treatment of Tuberculosis." He stressed the facts that with the exception of a few early tuberculous lesions and many hopelessly advanced moribund cases, the treatment of pulmonary tuberculosis today rests upon a fundamental principle—compression of open tuberculous lesions. There are 4 major forms of compression procedures, the most efficient form and the one to be tried first is generally agreed to be artificial pneumothorax; internal pneumolysis, the severing of pleural adhesions, is a necessary aid in pneumothorax work and will prevent many thoracoplasties; phrenicectomy is a simple procedure, does not produce marked compression and is generally used as a preliminary to thoracoplasty. Compression therapy in tuberculosis surgery cannot be done in a casual way by individual physicians who refer patients to each other and who do not develop a group or conference system. Tuberculosis today is not a surgical disease as some surgeons would have us believe; it is not a disease which can be treated in an ambulatory way. This work should be carried out in a modern hospital type of sanatorium. The principle in curing tuberculosis is compression. Proceed without wasting time and quickly compress an open lesion. All things being equal, the speed of recovery is in exact proportion to the efficiency of collapse of the lung.

VAUGHAN SPRENKEL, *Reporter.*

LUZERNE

May 16, 1934

The meeting was held in the Medical Building, Wilkes-Barre, with Edward W. Bixby presiding.

A. Burton Smith, Wyoming, read a paper on "Proctology in Its Relationship to the General Practitioner." He said in part: This subject has been neglected by the general practitioner as there are so many sufferers from

diseases of the rectum and anus. There are 5 important symptoms of rectal disease, *viz.*, hemorrhage, pain, discharge, prolapse, and pruritus. Thorough investigation for bleeding from the rectum no matter how slight is necessary. A feeling of relief after bleeding, caused by lessened congestion and pressure on the tissues, is experienced by the patient. A characteristic is periodicity in bleeding with every stool for a few days, followed by absence for a week, a month, or longer. Hemorrhoidal bleeding is the most frequent cause of macroscopic blood in the stools. Failure to examine and determine the source leaves one without foundation upon which to begin treatment. First bleeding in the elderly is apt to be cancerous. First and second degree hemorrhoids are apt to bleed more than third degree. Pain may exist for years with no discomfort until there are changes in the hemorrhoids. It is not characteristic. There may be a burning sensation, or a feeling of obstruction and fullness and incomplete defecation. A sharp cutting pain signifies the presence of other change as fissure; throbbing pain indicates the development of an abscess. Continuous, unrelieved, and excruciating pain indicates strangulation and thrombosis. Discharge of any character must be carefully investigated. Prolapse in the majority of cases means second or third degree hemorrhoids. Pruritus—itching piles, so-called, is frequently a very annoying condition which demands prompt study and treatment.

Some of the things which the ethical practitioner should know and be able to tell his patients about the advertising rectal specialists are: Despite their blatant claims, none of them has any secret methods of treatment not known to the profession at large; and many of their promises and statements are untruthful or exaggerated.

Confidence and coöperation must be obtained. Nearly all patients are embarrassed by the suggestion of a rectal examination. This is due to a feeling of uncleanness. Proper instruments and equipment are necessary for a thorough examination. They must be used skillfully, and the examination made without pain and discomfort. Acquisition of skill and gentleness are important properly to treat the patient.

Sigmoidoscopy and colonoscopy are impossible in a small number of cases because of distortion or fixation of the structures from strictures or malignancy, or inflammations, fecal impactions, or extreme irritability of the bowel in neuropathic or psychopathic states.

Place the patient in a comfortable position. The most common positions are left lateral, genupectoral, lithotomy, and inverted. In the hospital the operating or examining table, and in the home, a blanketed table, are best. The lubricant should be bland, insoluble in water, and have a stiff base. Digital examination should precede the insertion of the proctoscope to detect any obstruction. If there is a fissure, laceration, ulcer, or foreign body, the instrument should be kept away from them. An anesthetic is not necessary and the patient's feelings are a useful guide in the amount of pressure it is safe to use. Relaxation of the patient is necessary, too.

Inspection of the bowel is carried out when the instrument is inserted and withdrawn. Pain may be reduced by the quick removal of the instrument in the region of the sphincter muscle.

Bulky soft stools caused by the use of a generous diet of fruits, vegetables, and liquid petrolatum and agar if necessary, are important and harmless in the pregnant woman. The latter 2 accomplish the desired result without irritation anywhere along the intestinal canal and in addition exert a protective influence on the mucous membrane. Hemorrhoids are a complication of first importance in pregnancy. Their treatment falls

into 3 groups; during pregnancy, during labor, and during the puerperium. In the first period relief is obtained by a daily evacuation of a nonirritating stool. If there is a hard, rounded tumor, which is painful, it should be removed under local anesthesia. A fissure or ulcer are distressing in pregnancy. Treatment is necessary.

In discussion, Herbert B. Gibby said that judging from the number of cases of carcinoma that come too late, he thinks the profession is at fault or the laity has not been educated. So many of the patients are embarrassed at having a rectal examination and will put up with a great deal of discharge and pain before consulting their physician. Many of the minor conditions can be treated in the office. If any symptoms show themselves the patient should have a rectal examination. If the medical schools do not give any more instruction now than they did when he was a student, many of the men will not recognize what they see when they look through the sigmoidoscope. He prefers the inverted position unless contraindicated. This is practically without pain to the patient and gives a good view because the air balloons the intestine. The most important feature of the rectal examination is the early diagnosis of malignancy or conditions that will lead to it.

Stanley L. Freeman considers in the general examination of a patient, it is as important to examine the rectum as any other part, and no examination is of value without it. Hemorrhage from the rectum is an important sign, particularly if there is no pain. A man, age 28, had only one symptom and that was a few drops of blood from the rectum. Another man was just over 30. Both had cancer. In this country not as much attention has been paid to rectal examination as abroad.

MARJORIE E. REED, *Reporter*.

LUZERNE (HAZLETON BRANCH)

May 21, 1934

The Hazleton Branch met together with the local Dental Society at the Elk's Home. The scientific program was devoted to an address by J. K. Wampler, D.D.S., of Pittsburgh, who spoke on "The Necessity of Children's Dentistry and Visual Education."

He stated that many dentists neglect children's teeth. They extract an aching tooth without considering that deformity may result, or that the tooth might be saved with not too great an effort. While showing films demonstrating the development of the first dentition, he showed why the extraction of a deciduous tooth allows adjacent teeth to grow towards each other and causes obstruction to the growth of the permanent tooth. Additional films demonstrated deformities of the jaw resulting not only from extractions of deciduous teeth but also from pernicious habits such as bottle or thumb sucking.

In noting characteristics of the deciduous teeth it is interesting to observe a ring which sometimes forms about the 6-year molar. This results from any of the severe acute infectious diseases which may attack the child at about age 5 months. It is due to temporary cessation of metabolism (especially calcium) during the course of the disease.

He has frequently seen diseased and abscessed teeth, and occasionally Vincent's angina in children between age 8 and 24 months. If such a disease is not corrected by treatment (including extraction) the infectious process will destroy the bud of the permanent tooth. Parents should be encouraged and not discouraged in having their children's teeth examined. If pits or fissures are

the only signs of trouble found, they should not be ignored, but filled. Use metallic fillings rather than cement, because they last longer.

If extractions are necessary, adjacent teeth must be held apart by wires or bridges. Films were shown demonstrating the best methods for accomplishing this. It is recommended that similar pictures, as well as models, be shown the parents in explanation of the necessity for such treatment. Models also are advised to demonstrate why extraction of wisdom teeth is necessary to prevent deformity, and why sufficient excavating of cavities is essential if cavities are to be filled properly. Visual education of parents by lantern slides, motion pictures, or models not only "sells children's dentistry" to mothers, but ultimately makes for good health, prevents permanent deformities, and brings children into your offices.

In discussion, Manfred H. Kudlich asked whether lancing of gums is advisable in helping the eruption of teeth. George W. Taggart asked what items in diet are to be recommended to give children the best tooth development. John R. Dyson asked what treatment the practitioner should expect from a competent dentist when children with very badly diseased teeth are referred to him.

In conclusion, Dr. Wampler stated that lancing of gums is irrational, ill-advised, and should only be done as a last resort. He prefers to let the physician prescribe dietary measures, but believes calcium, all vitamins, and anti-anemic items should be used for the benefit of children's teeth. The physician referring children with badly diseased teeth to a dentist, should not be satisfied unless treatment includes roentgen-ray studies, fillings, and extractions, the latter followed by wire or bridge retainers.

June 6

The meeting was held at the Valley Country Club near Hazleton. The annual banquet was held following the scientific program. The guest speaker was Francis C. Wood, of the Robinette Foundation of the University of Pennsylvania Hospital, Philadelphia, who gave an address on "Coronary Disease," saying in part:

Little is known about the etiology of coronary artery disease except that it is a degenerative disease, common in persons between age 40 and 60, and seen rarely except in civilized races. Heavy responsibility, tension, and worry (especially in the Jewish race) favor its development. Hypertension and diabetes undoubtedly are predisposing factors. In some instances a tendency to develop the disease seems to be inherited since young persons who die of it frequently have children who do the same.

Since the trouble is caused by obstruction of the arteries supplying the heart, the symptoms depend on how this obstruction takes place. Thus, there may be angina pectoris or acute coronary occlusion if the vessels are unable to carry more blood, when more blood is needed. Or, there may be the symptoms of congestive heart failure if the obstruction is due to slow occlusion or slow fibrosis. Then again there may be no symptoms, when there are no sudden occlusions, no areas of precariously low blood supply, and no infarctions large enough to make the heart fail.

Angina pectoris is characterized by a dull, aching, heavy, pressing pain, or a burning discomfort. It is caused by effort, cold, walking in the wind, or overeating. It is relieved by rest, and followed by no "hang-over." It is of brief duration, and not sharp or knife-like as some authors would have us believe; it may be substernal and not precordial; it is not necessarily se-

vere nor radiating, and is not always relieved by nitrites. Treatment of angina pectoris is familiar and should include the following: Nitrites, such as nitroglycerin, gr. 1/150, under the tongue, and metaphyllin, gr. 1½, three times a day. These drugs are valuable in the effort to prevent attacks. Anemia and focal infections should be thoroughly treated.

Discussion of the day's activity of the patient will give an idea of what exertion brings on the attacks. Effort should be kept below the point of pain production. The newest therapeutic effort aimed at the prevention of angina is total thyroidectomy as described by Blumgart (*Arch. Int. Med.* 52: August, 1933, p. 165). Based upon the results at the University Hospital, it is a very valuable adjunct, but because of its difficulties and limitations should be done only by competent surgeons in selected cases. If it is tried in any and all cases of heart disease it will certainly prove dangerous, and even fall into great disrepute.

A typical case of coronary occlusion gives rise to the picture of: Previous angina, sudden onset, substernal or precordial pain, duration of several hours, restlessness, fall of blood pressure with clammy, sweaty, gray skin, and shock. This is followed on the next day by fever, tachycardia (or arrhythmia), leukocytosis, and a friction rub, in many cases. The pain of coronary occlusion may not be only substernal or precordial, but also is frequently epigastric, giving rise to difficulty in distinguishing pancreatitis. It may sometimes be felt in both arms and nowhere else, or in the neck and shoulders. Blood pressure does not always drop at once, but generally after several (even 12) hours. Coronary occlusion may be difficult to differentiate from gripe, or indigestion and gas.

A patient is often seen in whom the condition is suspected but not proved. Here the electrocardiogram becomes useful, for the diagnosis must be known in order to prescribe 6 weeks' bed rest, and not allow the patient up and run the risk of sudden death. Treatment must include 6 weeks in bed and 6 months of recuperation because of the dangers of ventricular fibrillation, rupture, embolism, and aneurysm of the heart. Details of treatment include morphine, which should not be given, however, in such large amounts that respiration is depressed. The digestive tract demands respect, and care should be used with other drugs to prevent gastric distress. Metaphyllin is used early. Nitroglycerin and adrenalin may be used as indicated. Digitalis is best deferred for 6 weeks unless congestive failure ensues. The patient should be allowed up either in 6 weeks, or at such a time as the sedimentation test returns to normal.

Persons with coronary disease should rearrange their habits, and abide by certain rules of living somewhat as follows: Avoid exercise that causes dyspnea or pain; avoid overweight; avoid overeating, eat 6 small meals rather than 3 large ones; avoid intemperance of all sorts; the use of tobacco should be stopped or reduced only if it definitely causes symptoms; avoid rush, tension, and worry; and avoid cold climates in winter if at all possible. Not all the patient's enjoyment of life should be spoiled; therefore, allow some work, fresh air, exercise, and alcohol provided symptoms do not develop.

JOHN M. DYSON, *Reporter*.

LYCOMING

May 11, 1934

The annual spring clinic meeting was held in Medical Hall. Edward A. Schumann, associate professor of

obstetrics, University of Pennsylvania School of Medicine, and Arthur M. Shipley, professor of surgery, University of Maryland School of Medicine, held clinics from 10:00 a. m. until noon.

Dr. Schumann spoke on eclampsia. The urea clearance test now is considered the most reliable means of distinguishing a true nephritic eclampsia from that of the pure toxemia of pregnancy. In the true nephritides the duration of life, if eclampsia is a factor, is on an average in the forties. After the second or third pregnancy they usually die. True nephritides having had previous eclampsia barring religious belief should be aborted or prevention practiced.

He gave a résumé of the various cycles through which the treatment of eclampsia has passed, and stated that careful studies in Philadelphia do not corroborate the work of Fay and Arnold on this subject. Dr. Schumann believes that: Every eclamptic should be individualized as to treatment; the treatment should combine the sedative and eliminative features; gastric lavage should always be done at the outstart, inasmuch as these patients usually practice dietary indiscretions; colonic lavage should then be done and it should be a real lavage, consisting of from 6 to 12 gallons of water *via* a 2-way tube until the colon is clean. Such a lavage requires nearly an hour and is one of the most important measures in his experience. It appears that following the colonic lavage a transudation of fluids by way of the kidney takes place. The urine immediately becomes lighter in color and albumin less. The patient should be kept warm. Convulsions are combated by morphine, gr. ¼ by hypodermic and chloral hydrate, 20 to 30 grains by bowel, this combination being repeated as often as necessary, and as long as the pulse and blood pressure do not grow worse. If there is no improvement after 12 hours of vigorous treatment, or the condition becomes worse, the uterus should be emptied. Simple rupture of the membranes will do in some; others require the introduction of catheters or a bag. In a primipara with a long uneffaced cervix and a long labor imminent, cesarean section should be done, preferably under local anesthesia. The baby in these cases is really of little importance inasmuch as the ratio of dead babies is in direct proportion to the severity of the eclampsia. More babies will be saved by the early induction of labor or cesarean. Lumbar puncture as a method of treatment was given a 3 years' trial at the Philadelphia General Hospital but showed no advantages to prove its worth in these cases.

A case of placenta previa was presented. Dr. Schumann stated that he knows how to treat the condition if the child is viable but knows nothing of how to treat the condition before viability. Generally speaking there is no expectant treatment of placenta previa. The treatment depends on: Multiparity of the patient; the extent of the pregnancy; and the position of the placenta. In central placenta previa do not use the bougie because of hemorrhage. The use of the bag to tamponade the bleeding placenta or even Braxton Hicks' version causes asphyxiation of the baby. Cesarean section performed the day the diagnosis is made in the central cases is safest. If hemorrhage has been severe, transfuse before operation, whether delivered by cesarean or vaginally, packing adequately to prevent postpartum hemorrhage. Dr. Schumann stated that if placenta previa took place in his family and was discovered as early as the sixth month he would terminate pregnancy.

Dr. Shipley gave a clinic on circulatory diseases of the lower extremities. He also discussed a case with the chief complaint of growth in the mouth.

Luncheon was served to about 70 members and guests.

At 1:30 p. m., Dr. Schumann gave a discourse on occiput posterior position, narcosis anesthesia, carcinoma of the cervix, and vaginal hysterectomy with clamps done in three minutes. He is enthusiastic about the use of morphine and scopolamin narcosis supplemented by local anesthesia in those under age 60. He detailed vaginal hysterectomy performed in record breaking time with clamps. In this operation he makes no effort to elevate the bladder and patients recover in 7 to 10 days and are discharged from the hospital with little or no postoperative defects when compared with the other forms of operation.

Dr. Shipley discussed diseases of the peripheral circulation. He stated in part that if we could get the parenchymatous organs outside the body they could be treated similarly to the extremities. In general we are really talking about the changes that take place as one passes from youth to old age. Involuntional changes in the arteries do not usually take place to the same extent in all parts of the body at the same time. One factor in common in all these cases is interference with the flow of blood into the extremities. Peripheral circulatory disease can be classified as follows: (1) Those in which the lumen is narrowed because of vasoconstriction or spasm. Examples are (a) Raynaud's disease, (b) stupor arterielle, (c) spasm of vessels in crushing injuries. In the latter case a limb may look dead but a little later improve. The same thing occurs after periarterial sympathectomy and in acrocyanosis. In the latter condition the patient will present cold blue hands and feet, especially in cold weather, but the pulse will be good and the vessels not hard. This is due to spasm. (2) The organic cases are those with definite arterial disease, such as senile arteriosclerosis, some cases of thrombo-angiitis, thrombus, embolus, pressure from tumor or a fracture and following ligation of arteries. Between the spastic group and the organic there is (3) a middle group which may be a combination of both, the extent of either varying in one direction or another.

Thrombo-angiitis obliterans is a classical example of this group, there being an element of spasm plus arterial disease. Recent work has been done to discover in each individual case how much spasm occurs. The posterior tibial nerve is injected with novocaine and the surface temperature is estimated with a thermocouple following injection. Normally the surface temperature is 24° C. In a room with a constant temperature it has been shown that if the surface temperature of the foot will be elevated 6 or 7° C. following the injection, spasm is a strong factor in the case and sympathectomy is the treatment of choice. If the elevation is only 2 or 3° C., occlusion is a factor in addition to the spasm and sympathectomy would be of less value. The fate of the limb depends upon the race between occlusion and collateral circulation. If the latter can be encouraged to the point of handling the circulation the limb would be saved. When gangrene is actually present it is too late. The drift today is toward less and less radical procedures. In spasm, periarterial sympathectomy does not affect those sympathetic nerves below the cuff which is removed.

Arterial massage is the direct result of Bier's work and that of a Frenchman. The latter had used a machine for this purpose. Mont Reid has developed such a machine in this country. The leg is placed in a boot which is air-tight and to which a tube is attached. An electrically driven pump is used to drive air into the tube under positive and negative pressure. Six changes a minute with a positive pressure of 20 mm. of mercury and a negative pressure of 80 mm. of mercury are caused by the pump. The positive pressure drives the

venous blood out of the limb and the negative sucks in arterial blood. Dr. Shipley has seen phenomenal results in bad cases of frost bite of the hands and feet in which treatment was started within 2 to 8 hours after the injury. These are treated 8 or 10 times during the first 24 hours for 30 or 40 minutes at a time and the treatment continued for a week but gradually decreased. The epidermis and the nails may be lost but the limb saved. In the middle group above mentioned the leg may be much improved by this means but the dorsalis pedis and posterior tibial pulses will not return. In the Buerger's cases the veins are affected and hence one must watch the positive pressure. An embolus might be pushed off into the circulation. In the senile cases it is even of more value.

Volkman's contracture, if seen early, can be cleared up promptly. Beginning causalgia caused by a tight splint can be cleared up in several weeks. In cases of nonunion caused by destruction of the nutrient vessel much benefit can be given. Also cases of poor callous formation should be an indication. It is not so useful in cases of Raynaud's disease and acrocyanosis because here the collaterals may be affected by spasm too. Generally speaking the lower extremities have less collateral circulation than the upper. Raynaud's may be self-limited.

Other factors in Buerger's disease, such as avoidance of tobacco, avoidance of injury to the parts, external warmth, less strenuous exercise but repeated small exercise, and sympathectomy if the Morton's test shows an elevation of 6° C., following novocain injection of the posterior tibial nerve, are the important factors in the treatment. Other forms of treatment such as diathermy, typhoid inoculation, intravenous fluids, etc., have not yielded the desired result. The racial factors seem continuously less important.

LARUE M. HOFFMAN, *Reporter.*

MONTOUR

May 18, 1934

The annual Mental Health Meeting was held at the Danville State Hospital.

The meeting convened at 10:30 a. m., for inspection of the hospital and the new Diagnostic Clinic. Luncheon was served. The scientific session convened at 2:00 p. m., J. Allen Jackson, presiding.

Moses Behrend, Philadelphia, president-elect of the State Medical Society, expressed the thought that the depression had been the cause of an increase in mental disease, and that prevention must be the keynote in the treatment of mental illness.

William C. Sandy, chief of the Bureau of Mental Health, described the important place that the Danville State Hospital occupied as a leader in the management of mental illness, outlining the numerous contributions which this clinic had made.

J. Bruce McCreary, deputy secretary of the Department of Health, extended the greeting of his department.

E. Roger Samuels, councilor for this district, extended the greeting of the Fourth Councilor District. He reminded the meeting of the regional Councilor's Conference to be held at Eaglesmere, July 18.

Lester P. Fowle welcomed the visitors at the meeting in the name of the Montour County Medical Society.

The scientific paper of the day was "The Medicosocial Problem of Drug Addiction," by Walter L. Treadway, assistant surgeon-general, Division of Mental Hygiene of the United State Public Health Service.

He pointed out the fact that cocaine, marahuana, and mescal differ from the opium group because they do not produce narcosis. There are a number of narcotic drugs that are not habit forming in the same sense as morphine. Contrary to general opinion, those able to obtain the necessary amount of the drug remain normal in appearance and are able to do their usual work. The immediate symptoms of withdrawal of the drug are fear, nervousness, insomnia, loss of appetite, cramps, twitching, and convulsions. The acute symptoms last about 72 hours. This is followed by a period of several weeks during which the patient's inhibitions are lost and he must be carefully watched. There are no adequate theories to account for tolerance.

It is estimated that there are about 100,000 addicts in the United States. People of all social ranks are found among the addicts. Control of the habit must be through segregation rather than punishment.

Discussion was opened by Mr. Harold Smith, chief of the Division of Drug Control of the Pennsylvania Department of Health, who stressed the difficulty which is sometimes met in deciding between the legal and illegal use of drugs. The problem of prevention is economic as well as moral and medical.

HENRY F. HUNT, *Reporter.*

PHILADELPHIA

May 23, 1934

At the joint meeting of the Obstetrical Society of Philadelphia and the Philadelphia County Medical Society, the report of the Committee on Maternal Mortality was presented by Philip F. Williams. The survey responsible for this report formed the basis for the I. P. Strittmatter Award to Philip F. Williams at a previous meeting of the Society. The end result of the work covered by this report was the analysis of 717 obstetric deaths in Philadelphia during the 3-year period covered by the survey. The work was made possible through the material support furnished by Mrs. B. Strauss, Mr. A. Fleisher, Mrs. Amy Swift, Mrs. J. C. Martin, Mr. P. B. Hammer, and Mr. Erwin Clague, as well as the yeoman service of Dr. Ruth H. Weaver and the obstetricians affiliated with the project, especially Alice W. Tallant, Edward A. Schumann, Collin Foulkrod, Norris W. Vaux, and William Nicholson.

One of the outstanding features of this report was the fact that 162 out of the 717 maternal deaths were due to abortions, illegal or otherwise. Of this group, 114 were among married women and only 48 among unmarried women. The estimated population of Philadelphia during the survey averaged 1,978,879, of which 1,743,496 were whites and 235,383 were Negroes. Of the 99,579 births recorded 15.0 per thousand were white and 21.3 per thousand were Negroes. Of the 717 deaths, 639 were from causes relating directly to childbirth and 78 definitely nonobstetric. The white race furnished 529, the Negroes 110, of the maternal deaths. As to obstetric care, the record showed that adequate care was furnished in 216 cases, inadequate in 193, and unknown care in 11 cases. The number of births in the 10-year period 1923-1933 was 41,343, a decided drop in the birth rate without a corresponding drop in maternity rate. The latter in 1920 was 6.23 per thousand living and still births. In the past few years it has increased to 7.5, dropping in 1931 to 5.75, and then increasing in 1932 to a figure (6.29) higher than in 1920, but in 1933 dropped to 4.4 per thousand.

The difficulties in this survey were increased by incomplete records and the disparity in the mortality statistics furnished by the accepted bureaus. Despite this, the Committee determined that 407 of the 717 deaths were associated with controllable causes. The detailed analysis given by Dr. Williams was quite elaborate and this will be published in connection with the full report now in press.

In discussion, Ruth H. Weaver added a few of the outstanding recommendations of the Committee. She particularly urged education of the laity on the subject of the dangers of abortion, and placed this responsibility directly on the shoulders of the medical profession and its affiliates. Alice W. Tallant reiterated the suggestions of the previous speakers as regards abortions and sepsis. Septic deaths after 28 weeks she believed could be attributed to the medical profession. A better and more complete record of maternity cases was also advised. Edward A. Schumann reviewed the manner in which the Committee proceeded in the analysis and reached the general conclusion that obstetric education needs revision. Collin Foulkrod stressed the patient's resistance or lack of resistance as a factor in maternal mortality. No one outside of trained obstetricians, in his opinion, should in the future attempt to care for the pregnant woman. Prenatal care should receive greater consideration. Norris W. Vaux attributed much of the maternal mortality to the failure of the hospitals, organized medicine, and the allied agencies to grasp fully their responsibilities and opportunities.

SAMUEL HORTON BROWN, *Reporter.*

WARREN

May 21, 1934

J. L. Waterman, of Bradford, read a paper on "Hematuria." He spoke mainly on diagnosis. If blood appears in the urine it may be due to: Systemic cause, 25 per cent; adjacent genito-urinary lesions, 12 per cent; urinary tract proper, 63 per cent. Systemic causes are such diseases as hemophilia, scurvy, leukemia, Hodgkin's disease; and overexercise, high protein diet, vicarious menstruation. Adjacent lesions are those of the genitalia proper; appendicitis with adhesions affecting ureters; dermoid cysts causing constrictions about the urinary tract or producing congestion in the kidney. The conditions arising in the urinary tract are: Renal causes, such as polycystic kidney, tuberculosis, ptosis with congestion, hypernephroma, malignancy, nephritis, suppurative pyelitis, calculi, and circulatory lesions (thrombi).

In the ureter, calculi and strictures may give rise to blood; in the bladder, benign and malignant growths, calculi, and tuberculosis. In the urethra, adenomas and malignant growths in the prostate in man; and carcinomas in women.

Pyelograms were shown to illustrate case reports. Diagnosis is uncertain in many cases unless a complete laboratory analysis preceded the cystoscopic and roentgen-ray examinations. So-called essential hematuria may exist, but usually a definite lesion can be found if the search is made with diligence.

In spite of all modern diagnostic procedures, an exploratory operation is sometimes necessary to reveal the true source of hemorrhage.

Twenty-four members attended the meeting. Dinner was provided by William H. Shortt, Charles W. Schmehl, Floyd G. Shuler, and Hiram B. Russell. The meeting was held at the Conewango Club.

MICHAEL V. BALL, *Reporter.*

YORK

June 16, 1934

President James F. Wood in the chair.

Mr. Franklin M. Crispin, executive secretary, Philadelphia County Medical Society, spoke on "Practical Economics in Medical Practice."

He said, in part: Most difficulties arise with physicians through selfish gain rather than through philanthropic motives; primary motive of medical economics is to safeguard the medical profession under supervision.

Three problems confront the profession: State medicine; hospitalization insurance, and difficulties of practice, local in character.

The American Medical Association is opposed to state medicine; the Milbank Memorial Fund Plan was read; a quotation from the April issue of the *Survey Bracket*, and the injection of a third party in state medicine is not advisable; hospitalization insurance is undesirable.

Difficulties of practice local in character, pertaining to hospital practice, certain forms of contract practice, enmeshment of lay workers on medical health problems, medical representation on hospital boards, the solicitation of patients as interpreted by the State Society, were discussed.

In discussion, James H. Comroe asked should a third party (specialist), be admitted to a community if invited by a civic organization; and what method should be used in order to place physicians on hospital boards.

Mr. Crispin replied that he would prefer to refer his answers to Dr. Samuel H. Brown, Philadelphia, who attended the meeting, as Dr. Brown is a physician. He said the admission of a specialist to a community when invited by some lay organization was entirely a local society problem; the appointment of physicians on boards of hospitals should be arranged so that the hospital staff should have complete control of medical and surgical matters; further that a medical economics committee from each hospital staff should work in conjunction with a similar committee of the County Society.

Samuel H. Brown, Philadelphia, elaborated on Mr. Crispin's address.

Dr. Roy H. Holmes, of Muskegon, Mich., explained medical economics in Muskegon County, Michigan, and went into some detail regarding the "Detroit Plan," Senator Couzens' Foundation, the Kellogg Foundation, and the handling of baby clinics in Muskegon County.

George E. Holtzapple, York, spoke of the difficulties experienced in the staff of the hospital contacting the Board of the hospital locally.

H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

PUBLIC HEALTH EDUCATION

Dauphin.—An outstanding meeting of the year was the annual public health relations meeting held, May 15, at the Harrisburg State Hospital, at which time Dr. Howard K. Petry, superintendent, spoke on "Mental Diseases."

Members of the auxiliary together with guests representing about 50 organizations for women of the county were in attendance, numbering about 175, who after the meeting inspected the hospital and were served tea by Mrs. Petry and other members of the auxiliary who live at the hospital. The interest shown by the laity was evidenced by the fact that most of the representatives of the different clubs asked Dr. Petry if the privilege of holding a similar meeting would be given them.

Mrs. Merle V. Hazen, chairman, Public Health Education and Periodic Health Examination Committee, was responsible for this "red letter" day.

Luzerne.—The early part of March, Mrs. Edward W. Bixby, chairman, Public Health Education Committee, was in charge of a Public Health Program at the Kirby Health Center, Wilkes-Barre. This building houses every health organization in the city, including Visiting Nurse, Social Hygiene, Mental Hygiene, Dental Hygiene, Crippled Children, and other organizations.

Dr. Charles B. Crittenden, who has charge of the Health Center, was the speaker, and later conducted a tour through the different health agencies.

During the winter, a Social Hygiene Program was sponsored with the leading doctors and nurses on the program.

A one-day mental hygiene program was given; beginning at 9:45 a.m., in the Luzerne County Medical Society Building, followed by a 100-member luncheon at noon. (For an account of this meeting, see p. 447, this JOURNAL, February, 1934.)

Luzerne County may be justly proud of the work done for Public Health Education. State President Mrs. Edward Lyon rates it at 100 per cent.

MILLIE BAIRD (MRS. E. KIRBY) LAWSON,
Chairman, State Committee on Public Health Education.

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

The report of the work of the Committee on Public Relations, Allegheny County, Mrs. D. N. Bulford, chairman, is of interest to members of other auxiliaries because of valuable suggestions of work that can be done.

Seven meetings have been held by the chairman during the past year either with the entire committee or different members of same to further the work. The first task was the promotion of the sale of tuberculosis seals from Dec. 13 to 22, 1933, a booth in the foyer of the Oliver Building being assigned to us. Those acting as chairmen for various days were Mrs. David B. Ludwig, Mrs. George A. Holliday, Mrs. John R. Conover, Mrs. Robert C. Hibbs, Mrs. Howard A. Power, and Mrs. Homer W. Grimm in addition to the members of the Public Relations Committee. The result was the sale of seals amounting to \$33.38.

An article was written by the chairman, at the suggestion of the president, for the *Allegheny County Med-*

ical Society Bulletin summarizing this work. So much interest was created both locally and through communications received concerning the article that the arrangements were made for the board to visit the Tuberculosis Hospital. We were conducted by Dr. C. Howard Marcy, director of the institution. This was a step in an educational program for our members.

A transportation committee was formed to assist workers under Dr. Henry T. Price, of Emergency Child Health Committee, in getting to various points in the county to carry on the program of service. Those volunteering to serve on the committee were Mesdames George Holliday, Theodore Baker, and Homer W. Grimm. Mrs. Baker served in this capacity, April 23, going to Elizabethtown and surrounding country. Twenty-three children were examined in various public points and 16 in private homes.

At the request of Governor Pinchot, your chairman has served as a member of Dr. Price's executive committee. She has attended 3 meetings of the General Health Council and 4 meetings of Child Health Council.

Your committee followed a new venture this past year in securing some study envelopes and pamphlets published by the State Medical and American Medical Societies and having the board of our auxiliary become acquainted with the material and how it could be used by the public. To accomplish this, various publications were given to Mesdames C. Howard Marcy, David B. Ludwig, John R. Conover, and Hibbs, who reviewed them at 2 board meetings. Your chairman was desirous of having the membership at large, however, know of the materials; so an article on this aspect of our work was written for the *Bulletin* appearing in the issue of May 12.

Perhaps the most outstanding aspect of the work of the committee has been compiling a scrapbook which is a summary of the health work carried on by the outstanding agencies in Allegheny County. Mrs. George Leibold has acted as chairman of this work. It is hoped that this book may be of value for reference work by future public relations committees, that it may show us where we fit into the health picture as a whole, and the scope of work carried on by our Medical Society. It is not the intention of the committee to make this book all inclusive but rather to outline, in order that with this knowledge our society can cooperate more intelligently with other groups and realize more fully the weak as well as the strong points in the county's health program. This book will be sent by the committee to the State convention. All reports requested by State chairmen and officers have been compiled and sent; including report to State Committee of Child Care and Recovery.

The Public Relations Committee had charge of the work of the Medical Auxiliary in serving, on May 19, at Kaufmann's Department Store, when the Children's Hospital observed "Tag Day." The following members helped the committee in this work: Mesdames George Holliday, Clarence H. Ketterer, Lester L. Bartlett, and C. Howard Marcy.

Your chairman secured the mailing list of representatives to be invited to our program for Reciprocity Health Day and helped in the mailing of programs and letters. She has given 4 health talks before various groups during the year and at the November meeting of the auxiliary spoke of the new plan for maternity care conducted under the direction of the Allegheny County Medical Society covering need, procedure, compensation, scope of work, and method of supervision.

From the experience of the past year the committee makes the following suggestions:

Closer relationship between our group and other health organizations by.

1. Combined meetings such as our "Health Reciprocity Day."

2. Assisting others through supplying approved speakers or suggested health materials.

3. Study of the objectives of our Medical Society's Public Relations Committee before beginning this committee's work for the year.

4. Greater opportunity afforded the committee to contact the general membership with helpful suggestions.

As chairman, I wish to express my indebtedness to the members of my committee who served so well. I further wish to acknowledge the fine cooperation of various members of the auxiliary as well as the support and encouragement of the president, Mrs. Howard A. Power, and the board in helping to further our committee work during the past year.

COUNTY AUXILIARY REPORTS

Allegheny.—On May 21, the auxiliary sponsored a "Reciprocity Health Day Meeting" at the College Club, Pittsburgh.

The following program was presented: "Rehabilitation of the Anterior Poliomyelitis Patient (Reference to Use of Local Swimming Pools)," Dr. E. R. McCluskey.

"Message," Dr. Thomas B. Carroll, *chairman*, Public Relations Committee, Allegheny County Medical Society.

"Remarks," Mrs. D. N. Bulford, *chairman*, Public Relations Committee, Woman's Auxiliary to the Allegheny County Medical Society.

"Preventable Deaths from Appendicitis," Dr. John W. Shirer, Appendicitis Mortality Committee, The Medical Society of the State of Pennsylvania.

"Women in the Emergency Child Health Conservation Program," Mrs. Berthold Strauss, vice chairman, Emergency Child Health Committee of the State of Pennsylvania; Member, State Committee, Mother's Assistance Fund.

Berks.—The auxiliary met at the State Hospital, Wernersville, May 14.

Mrs. Wellington D. Griesemer, president, conducted the regular monthly meeting. The names of the new officers were announced: President, Mrs. Howard U. Miller; president-elect, Mrs. Paul C. Craig; first vice president, Mrs. William E. Krick; second vice president, Mrs. Frank P. Lytle; treasurer, Mrs. Ralph L. Reber; recording secretary, Mrs. Leon C. Darrah; corresponding secretary, Mrs. Arthur A. Bobb.

A paper on "St. Vitus Dance" was given by Mrs. Robert J. Phipper. Mrs. Howard U. Miller has completed the writing of a history of the Berks County Auxiliary.

Dr. Hill conducted a tour of the hospital. Mrs. Hill served refreshments.

At the Reading Country Club, Monday afternoon, June 4, at 1 p. m., 67 members and guests of the auxiliary held their first reciprocity luncheon. Following luncheon, Mrs. Wellington D. Griesemer called the members together for the final business meeting of the season. At this time the annual report was read to the society by the president, after which Mrs. Griesemer presented a new gavel to the succeeding president, Mrs. Howard U. Miller.

Mrs. Howard U. Miller greeted us with the hope that our goal would continue to be friendship and service, that we would be able to create a deeper sympathy, one

with the other, and thus enlarge understanding among us all.

A program was presented by Mesdames Le Roy W. Frederick, Edward C. Edgerton, and Paul R. Hess. The guests from West Chester were Mesdames John A. Farrell and U. Grant Gifford; and from Montgomery County, Mrs. Herbert B. Shearer. Each of these women told us of the work being accomplished in her county organization.

A poster, designed and executed by a local senior high school pupil, Miss June Phipper, was exhibited. This poster was sent to the American Medical Convention at Cleveland by Mrs. Cecil Freed. It depicts the work being done in Berks County to further the cause of preventive medicine. Radio talks, prepared by the American Medical Association, are broadcast by members of the auxiliary every Wednesday and Friday at 9:10 a. m.

Mrs. Leon C. Darrah deserves much credit for this successful luncheon meeting. As a tribute to her initiative and thoughtfulness in planning it, we hope it may become an annual event.

Mrs. Ralph L. Reber, treasurer, hopes for a banner year in the prompt payment of dues. Early payment of dues facilitates her bookkeeping and banking. Let us all try to help in this way.

Mrs. William F. Krick is in Philadelphia, staying close to the University Hospital, in which her son, William, is extremely ill. Dr. and Mrs. Krick have our sincerest sympathy, in this, their dark hour.

Bucks.—The auxiliary conducted their meeting at the Nurses' Home, Grand View Hospital, Sellersville, with a good representation of members in attendance.

The *Hygeia* Committee reported 10 subscriptions already on hand for the beginning of the year's work. Bucks County Auxiliary claims distinction for this work in so far as the *Hygeia* fund is known as the Corinne Keen Freeman Memorial Fund and was established before the national fund was created.

The guests and speakers were Mrs. John A. Farrell, councilor, Second District, and Mrs. Howard Mellor, president-elect of the Chester County Auxiliary.

Mrs. Farrell spoke on the work being done by auxiliaries in other counties, showing ways and means of raising money, but warned not to have the "tail wag the dog," but rather wait until assigned a project by our parent society.

Mrs. Mellor outlined the work of the Chester County Auxiliary, in which the doctors have asked the members to assist in arranging "Community Health Meetings" in order to put on a campaign for the prevention of maternity mortality, and also the danger of neglecting to consult the physician for "stomach ache" and the danger of giving purgatives under such conditions. In this way the doctors hope to bring to the public valuable information and also educate the public to consult medical practitioners rather than cults and isms so prevalent in Pennsylvania.

The next meeting will be conducted in September; there are only 4 meetings a year.

Chester.—In an effort to conduct an educational campaign against the increasing high mortality from appendicitis and the high mortality and morbidity resulting from childbirth in Chester County, the auxiliary at the May meeting held at the U. S. Veterans' Hospital, Coatesville, entertained the presidents of the federated clubs of the county and representatives of Parent-Teacher Associations to present the plan the Medical Society is sponsoring.

Luncheon was served with the visiting women as guests of the organization, followed by the meeting. Dr. Howard B. F. Davis, president of the County Medical Society, gave a résumé of the history of medicine. Statistics were presented showing the alarming increase in the death rate from appendicitis, also the high mortality and morbidity resulting from inadequate care in maternity work. The feasible plan and one approved by the Medical Society is that a committee from its group outline definite information on these subjects and have a local physician in each community present the subject before a meeting arranged by the local club group.

The guests were given the privilege of an inspection of the Hospital while the business meeting was held. The president, Mrs. U. Grant Gifford, announced the following officers had been elected: President, Mrs. Howard Mellor; first vice president, Mrs. U. Grant Gifford; second vice president, Mrs. John A. Farrell; secretary, Mrs. Michael Margolis; treasurer, Mrs. Robert Hughes.

Mrs. Mellor gave a report of the Health Institute held by the Philadelphia County Auxiliary; plans were also discussed for aiding the Medical Benevolence Fund.

Lehigh.—Mrs. Halbur H. Earp, president, entertained the auxiliary at her home in Catasauqua, on June 12. A short business meeting was held at which reports of all committees were read. Mrs. Cora Gange were, treasurer, was authorized to send a check for \$100 to the Medical Benevolence Fund. This was made possible by using the proceeds of the spring card parties. Bridge followed and refreshments were served; Mrs. Harry J. Keim and Mrs. Paul W. Ramer, past presidents, pouring tea.

The annual outing was held on Tuesday, July 10, at Riverview Lodge. Dinner was served at 1 p. m., contract and auction bridge following. Mrs. C. K. Rose, chairman of the Ways and Means Committee, was in charge of the arrangements. Two new members were welcomed to the auxiliary in June. There will be no August meeting.

Luzerne.—On June 23, the auxiliary completed its second year. During that time the auxiliary has been active in both a social and educational nature. The following is a résumé of the work accomplished:

At the organization meeting, June, 1932, the following officers were elected: President, Mrs. Charles H. Miner, Wilkes-Barre; first vice president, Mrs. C. W. Prevost, Pittston; second vice president, Mrs. Edward Dougherty, Ashley; recording secretary, Mrs. V. P. Edwards, Edwardsville; corresponding secretary, Mrs. W. C. Stiff, Plymouth; treasurer, Mrs. Julian S. Long, Wilkes-Barre.

On July 14 of the same year, the auxiliary met and voted upon the constitution and by-laws which had been prepared by the advisory board of the Medical Society. Chairmen of the committees appointed at that time are: Membership Committee, Mrs. T. R. Gagion, Pittston; Publicity Committee, Mrs. Albert R. Feinberg, Wilkes-Barre; Program and Legislative, Mrs. Edward W. Bixby, Wilkes-Barre; *Hygeia* Committee, Mrs. H. Gordon Guyler, Wilkes-Barre; Health Examinations, Mrs. J. Irving Roe, Dallas; Entertainment, Mrs. Stanley D. Freeman, Wilkes-Barre.

It was decided to have regular meetings every two months on the evening of the third Wednesday of the month, and the months selected were January, March, May, September, and November, omitting the summer month, July.

After the preliminary organization meetings, there was a social with the main thought of becoming acquainted. The executives then ruled that something constructive and educational should be done.

In November, 1932, Dr. Paul Heath, pastor of the First Presbyterian Church and chairman of the dependency division of the Welfare Council, gave a very interesting and illuminating talk on the problems of transient men and boys.

At the next meeting, February, 1933, Mrs. A. C. Williams, chairman of production in the Wyoming Valley Chapter of the American Red Cross, talked on the work of her committee in handling thousands of yards of material which were cut and distributed to sewing societies, girl scouts, school sewing classes, *etc.*, to be made into garments for the Clothing Exchange. At this meeting sewing was begun on these garments. During the spring of 1933 the auxiliary sent 48 completed garments to the Clothing Exchange, and hundreds of gauze dressings were completed for the General Hospital.

At the March meeting, Dr. Peter P. Mayock and Miss Nellie G. Loftus spoke on the genito-urinary work done in this city under the State Department of Health. Dr. Mayock appealed to the auxiliary to establish an institute of social hygiene which would be of great value to mothers of growing children in teaching them how to safeguard themselves, and the importance of clean living. The auxiliary pledged its interest and support to such an institute, and it is expected to be carried out in this year's program.

The first year was brought to a close with a Spring Luncheon Meeting in May, 1933, at which the attendance was more than 100.

The fall meetings were opened in September, 1933, and election of delegates to the State meeting was held. This was followed by an address from Mrs. E. W. Bixby on the proposed work of the Woman's Crusade. She was a chosen representative at the White House Conference and gave the first talk of her Crusade to the auxiliary. Many of the members volunteered their services in the crusade and proved to be valuable workers. They also offered their help to the Emergency Child Health Committee and are ready to be called on at any time.

The November, 1933, meeting at which Dr. Jessie Janjigian read a paper on "Mental Health and Its Problems," opened the way toward the Mental Health Institute which was proposed, undertaken, and put over by Mrs. Charles Long.

On Dec. 4, the morning session was held in the Medical Society Building. A luncheon and afternoon session were held in the Sterling Hotel. Mrs. Long gathered together a group of educators and social workers who gave a program which aroused and awakened very great interest in those who attended. There was an estimated attendance of 400 persons. Contributions to the Wyoming Valley Welfare Federation were pledged again for 1934.

A luncheon on Jan. 17, 1934, with 90 members and guests in attendance brought to a close the first fiscal year. At this meeting the following officers were elected for the ensuing 2 years: President, Mrs. C. W. Prevost, Pittston; first vice president, Mrs. V. P. Edwards, Edwardsville; recording secretary, Mrs. Stanley L. Freeman, Wilkes-Barre. Reinstated for an additional year were: Second vice president, Mrs. Edward Dougherty, Ashley; corresponding secretary, Mrs. W. C. Stiff, Plymouth; treasurer, Mrs. Julian Long, Wilkes-Barre.

A tour of the Kirby Memorial Health Center and an address by Dr. Charles B. Crittenden, principal health

officer of the City of Wilkes-Barre and manager of the Kirby Health Center were outstanding events of the March 21 meeting. In his address, Dr. Crittenden explained the many uses of the Health Center, and pointed out its very important part in the health program of the community.

The annual spring luncheon with nearly 100 in attendance was held on May 16. Plans and committee chairmen were named for the State Convention to be held in Wilkes-Barre the week of Oct. 1, 2, 3, 4. Mrs. Charles H. Miner, State Convention chairman, discussed these plans in full.

Northampton.—The meeting was held, June 13, at Mountain Inn, at Scot Run in the Poconos. There were 46 members and guests present. After luncheon, the business meeting was held, President Mrs. Arthur Fox presiding. The treasurer reported a balance of \$128.73. The total profit on the card party held on June 6 at the Northampton Country Club was \$85.

It was voted to send as the yearly contribution \$100 to the Medical Benevolence Fund. The delegates to the State Medical Convention in October were appointed as follows: Mrs. Francis J. Conahan and Mrs. J. Edward Brown; alternates, Mrs. Herbert J. Schmoyer and Mrs. Carl Yelden.

The hostesses for September will be: Mrs. J. J. Groner and Mrs. Glenn G. Klock, Easton; and Mrs. J. Edward Brown, Hellertown.

Medical News

Birth

TO DR. AND MRS. WILLIAM T. LEMMON, Ardmore, a son, William Thomas Lemmon, Jr., June 11.

Engagements

MISS MARGARET AMELIA ELLIS, daughter of Dr. and Mrs. William T. Ellis, Swarthmore, and Mr. E. Everett Pierce, Bath, Maine.

MISS VIRGINIA PRESTON MILLER, daughter of Dr. and Mrs. Casper Wistar Miller, Wallingford, to Mr. Robert Hare Davis, Philadelphia, June 14.

Marriages

MISS ROSE MIKLINSKI to Dr. Felix Shubert, Erie, May 29.

MISS JEAN FLORI to Dr. J. W. Kennedy, both of Philadelphia, April 14.

MISS HELEN GILBERT, Philadelphia, to Dr. George E. Becker, Erie, May 14.

MISS BETTY CEIL CURRY, Washington, to Dr. Joseph H. Gerdes, Harrisburg, May 24.

MISS HELEN SUSAN BROWN to Dr. Alexander Carlyle Cameron, both of Erie, April 28.

MISS ELEANOR SUMNER FISHER, Media, to Dr. Allan Dinsmore Wallis, Malvern, June 30.

MISS EUDORA FRY, Montoursville, to Mr. George Walton Lyon, son of Dr. and Mrs. Edward Lyon, Williamsport, April 15.

MISS MARTHA CLARE SCHOFIELD, Philadelphia, to Dr. Eldred Burder Teague, Birmingham, Ala., Jan. 27. Dr. Teague received his degree this year from the University of Pennsylvania School of Medicine and is now an intern at Roxborough Memorial Hospital.

Deaths

MRS. JONES, Shamokin, wife of Dr. Adna Sawyer Jones, recently.

PHILIP GEORGE BIDDLE, Dushore; Jefferson Medical College, 1897; aged 67, May 21.

LILLIAN D. BRADFORD, daughter of Dr. and Mrs. George M. Bradford, Philadelphia; May 24.

MARTIN LUTHER FINKBINER, Philadelphia; Medico-Chirurgical College, 1906; aged 64; May 30.

ALBERT MILTON BUZARD, Munson; University of Pittsburgh School of Medicine, 1891; aged 78; April 16.

ELI HARMAN PORCH, Philipsburg; Medico-Chirurgical College of Philadelphia, 1896; aged 69; April 7.

PRESTON M. EDWARDS, Philadelphia; University of Pennsylvania School of Medicine, 1893; aged 66; March 23.

GILBERT LA FAYETTE CLARK, Centerville; Miami Medical College, Cincinnati, 1875; aged 85; April 19, arteriosclerosis.

CHARLES C. DOLL, president of the Zemmer Company, Pittsburgh, manufacturing chemists to the medical profession; May 17.

HOWARD HENRY DRAKE, Norristown; Jefferson Medical College, 1878; member of his county and State medical societies, and Fellow of the A. M. A.; aged 77; May 19.

JOHN HUSTON JOHNSON, Glen Moore; Jefferson Medical College, 1907; member of his county and State medical societies, and Fellow of the A. M. A.; aged 58; April 26.

HARRY ARTHUR VOSBURG, JR., Du Bois; Jefferson Medical College, 1912; member of his county and State medical societies, and Fellow of the A. M. A.; aged 45; May 18.

CHARLES IRA WALKER, Sharon; University of Pittsburgh School of Medicine, 1901; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 64; May 5. His widow and son survive.

GEORGE TOWNLEY PRYOR, Sheffield; University of Buffalo School of Medicine, 1882; member of his county and State medical societies and a Fellow of the A. M. A.; aged 74; recently.

LILLIAN ATKINS MOORE CLARK, Philadelphia; Woman's Medical College of Pennsylvania, 1923; member of her county and State medical societies, and a Fellow of the A. M. A.; aged 36; March 21.

JOHN PATRICK GALLAGHER, Philadelphia; University of Pennsylvania School of Medicine, 1909; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 49; June 5.

SAMUEL SAFFIELD RODGERS, Pittsburgh; University of Pittsburgh School of Medicine, 1931; aged 28; March 1, bronchopneumonia, at Children's Hospital, in which he was resident physician.

EDWARD ALOYSIUS TREACY, Philadelphia; Jefferson Medical College, 1913; aged 50; June 1, in the Frankford Hospital. His widow and 2 daughters survive. Not a member of his county medical society.

JOSEPH A. MOORE, Philadelphia Medical College, 1902; pathologist and member of the staff of St. Mary's Hospital; member of the American Society of Clinical Pathologists, his county and State medical societies, and a Fellow of the A. M. A.; aged 54; May 24. His widow, a daughter, and 3 sons survive.

JAMES LESTER JUNK, Connellsville; University of Pennsylvania School of Medicine, 1907; completed postgraduate course in medicine at Harvard; served in Medical Corps of the U. S. A.; captain in the Penn-

sylvania National Guard, and became major in 1922, which grade he held at death as regimental surgeon; aged 55; May 20.

THOMAS C. ROSS, Philadelphia; Medico-Chirurgical College, 1905; served in the World War with the 110th Ambulance Corps, and captain in the 28th Division of the A. E. F.; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 57; June 6. He is survived by his widow, 2 daughters, 2 sisters, and 4 brothers.

CHARLES WILHELM EISENHOWER, York; Jefferson Medical College, 1903; aged 62; May 21, of a self-inflicted bullet wound. Dr. Eisenhower was a former president of the York County Medical Society, and at the stated meeting of the Board of Trustees of the State Society, May 9, 1934, he was elected first vice president, to fill the vacancy caused by the resignation of Dr. George C. Yeager, Philadelphia.

FREDERICK WALKER ST. CLAIR, Indiana; University of Pittsburgh School of Medicine, 1913; aged 48; June 6, malignant endocarditis. Dr. St. Clair was born in Indiana, Oct. 6, 1885, the son of the late Dr. Charles M. and Sarah Taylor St. Clair. His father at that time was associated with his grandfather, Dr. Thomas St. Clair. He received his early education at the Elder's Ridge Academy, Washington and Jefferson College, and Johns Hopkins University. He served his internship in the St. Francis Hospital, Pittsburgh, and started practice in Indiana in 1915. During the World War he was stationed at the Yale University War Laboratory at New Haven, Conn. He was a former president of his county medical society and for years was editor of the society's bulletin; member of his State Medical Society; Fellow of the A. M. A.; county coroner for the third term. He is survived by his widow and four children.

Miscellaneous

DR. LUTHER C. PETER, Philadelphia, received the honorary degree of Sc.D., conferred by the Susquehanna University at the annual commencement, June 4.

A BEQUEST of \$5000 was made to the Delaware County Hospital, Drexel Hill, Philadelphia, for the maintenance of 3 beds, according to the will of Mrs. Louise Mende Hembold.

A TESTIMONIAL DINNER was given to Samuel P. Glover, Altoona, April 19, to celebrate his 50 years in the practice of medicine. Fifty-three physicians and dentists were present.

DR. FREDERICK GRANT BANTING, Montreal, Canada, was made a Knight of the British Empire in the King's honor list published in London, June 4, in recognition of Dr. Banting's work pertaining to insulin.

DR. WILLIAM H. KUNSMAN, Morrisville, aged 75, celebrated his fiftieth year as a practicing physician, May 14. Dr. Kunsman has been practicing at Morrisville for 38 years. He served as coroner of Bucks County for 9 years.

THE SEVENTH ANNUAL CONVENTION of The Association of Physicians' Square Clubs of America was held June 2, at Concourse Plaza Hotel, Bronx, New York, under the jurisdiction of the Physicians' Square Club of the Bronx, Inc. Herbert M. Goddard, Philadelphia, presided.

MERCK & Co., Inc., announces the publication of the sixth edition of the *Merck Manual of Therapeutics and Materia Medica*, completely revised and rewritten. Available only to members of the medical profession, pharmacists, chemists, and those in allied professions, at the price of \$2 per copy.

THE EIGHTY-SIXTH ANNUAL COMMENCEMENT of the Hahnemann Medical College and Hospital of Philadelphia and the Hahnemann College of Science was held in the Academy of Music, June 7. There were 95 graduates in medicine. The commencement address was de-

livered by Dr. Wilmer Krusen, president of the Philadelphia College of Pharmacy and Science, upon whom was conferred the honorary degree of Master of Arts in medicine.

HERMAN B. COHEN was recently appointed senior attending otolaryngologist at Jewish Hospital, Philadelphia, to succeed Robert F. Ridpath who resigned. Ralph Goldsmith and Mitchell Bernstein were appointed senior attending surgeon and senior attending physician, respectively, in the medical department to fill the vacancies caused by the resignations of Leon Brinkman and Ludwig Loeb, respectively.

Dr. Cohen, who has been secretary of the Philadelphia Laryngological Society since 1926, was made vice president at a meeting of the society, June 5.

THE ALUMNI ASSOCIATION of Hahnemann Medical College held its annual dinner and reunion at the Bellevue-Stratford, Philadelphia, June 7. George Raiguel and Wilmer Krusen addressed the 350 attendants. The following officers were elected: President, Walter E. Long, Westboro, Mass.; Charles Hollis, James D. Schofield, and William Bennett, all of Philadelphia, vice presidents; Carl Fisher, Philadelphia, secretary; Richard Larn, Philadelphia, treasurer; Wayne Killian, James M. Godfrey, and William D. Culin, trustees.

NURSES' TRAINING SCHOOL COMMENCEMENTS:

Women's Homeopathic Hospital, Philadelphia, May 22, 13 graduates.

Montgomery Hospital, Norristown, May 23, 11 graduates, address delivered by Frank C. Parker, president of the hospital staff.

Misericordia Hospital, St. Joseph's Hospital, St. Mary's Hospital, and St. Agnes Hospital, Philadelphia, May 22, 119 graduates. Cardinal Dougherty presided at the joint exercises.

THE FIRST POSTGRADUATE SEMINAR held by the counties of Bradford, Sullivan, Susquehanna, Tioga, and Wyoming at the Robert Packer Hospital, Sayre, Pa., June 7, was attended by 65 physicians. Edward J. G. Beardsley, clinical professor of medicine, Jefferson Medical College, Philadelphia, conducted this clinic. The subject was "Cardiovascular Renal Disease." There was dinner at the Wilbur Hotel at 6:15, followed by an evening address by Dr. Beardsley on "Psychology as Related to the Physician." The seminar was received very enthusiastically. Other seminars will follow on the next five Thursdays, afternoon and evening.

THE ONE HUNDRED AND TWELFTH Annual Commencement of the Philadelphia College of Pharmacy and Science was held in the auditorium of the college, June 6. The commencement address was delivered by Oscar W. Bethea, professor of therapeutics, Graduate School of Medicine, Tulane University, New Orleans, La., upon whom was conferred the honorary degree of Master of Pharmacy. The same degree was conferred upon Drs. Walter Bastedo, of New York, and Horatio C. Wood, of Philadelphia. Dr. Bethea's address was "The Interdependence of the Various Departments of Science."

THE AMERICAN COLLEGE OF PHYSICIANS will hold its Nineteenth Annual Clinical Session in Philadelphia, April 29 to May 3, 1935. Announcement of these dates is made particularly with a view not only of apprising physicians generally of the meeting, but also to prevent conflicting dates with other societies that are now arranging their 1935 meetings. Jonathan C. Meakins, of Montreal, Que., is president of the American College of Physicians, and will arrange the program of general sessions. Alfred Stengel, vice president, in charge of Medical Affairs of the University of Pennsylvania, has been appointed general chairman of local arrangements, and will be in charge of the program of clinics. Mr. E. R. Loveland, executive secretary, 133 S. 36th Street, Philadelphia, Pa., is in charge of general and business arrangements, and may be addressed concerning any feature of the forthcoming session.

THE NINETEETH ANNUAL MEETING of the American Psychiatric Association was held at the Hotel Waldorf-Astoria, New York City, May 28 to June 1. The following officers were elected for the year: President, Charles F. Williams, superintendent of the South Carolina State Hospital and professor of psychiatry at the South Carolina Medical College; president-elect, Clarence O. Cheney, director of the New York State Psychiatric Institute and Hospital, New York City; vice presidents, A. A. Brill, New York; William A. White, Washington, D. C.; John H. Bell, Virginia; secretary-treasurer, William C. Sandy, director of the Bureau of Mental Health, Pennsylvania State Department of Welfare, Harrisburg; councilors for 3 years, George H. Kirby, New York; Forrest C. Tyson, Maine; Glenn E. Myers, California; Winfred Overholser, Mass.

THE TORONTO (Canada) Academy of Medicine in June, marking a century of medical progress in that city, established a historic museum in which medical apparatus of days of yore used there will be exhibited. The centenary was celebrated at the Hart House Theater with a reception and a pictorial review, "Historic and Hysteric Medicine," including a motion picture reproduction of the administration of the first anesthetic. Among the museum exhibits will be the bleeding bowls and the microscope and slides with which Sir William Osler did his first natural history work in Toronto. Glass cases will contain the diplomas, prescriptions, and notes of early outstanding physicians, as well as relics including the skull which Dr. John Rolph used in teaching at Toronto's first medical school.

THE MEDICAL CLUB of Philadelphia held its annual outing, May 24. The outing consisted of a train ride to Jersey City, where a palatial steamer of the Keansburg Steamboat Company was boarded for a most delightful trip up the Hudson River to Bear Mountain. A box luncheon was served on board. The headquarters were made at Bear Mountain Inn, where dinner was served. The numerous diversions at the Park surrounding the Inn are an outdoor swimming pool, a small zoo, beautiful walks where the glorious scenery of the famous Hudson can be viewed. After dinner return trip was made by the steamer to Jersey City, where the participants were transferred to the train for home. No ladies were included on the trip. No one can appreciate the enjoyment manifested on the annual outing of the Medical Club of Philadelphia unless they have shared its hospitality.

THE NINETEENTH ANNUAL MEETING of the Pennsylvania Radiological Society was held at Pocono Manor Inn, Pocono Manor, May 18 and 19, President W. B. G. Ray, Pittsburgh, presiding. The two-day program was well attended by physicians and guests from Pennsylvania, Maryland, Ohio, and New York. There were about 100 members and guests present.

The following officers were elected: President, J. W. Fisher, Pittsburgh; first vice president, H. B. Davis, Lancaster; second vice president, H. Wilson Morrow, Swissvale; secretary-treasurer, L. E. Wurster, Williamsport; editor, A. L. Benson, Philipsburg; censors, P. B. Mulligan, Ashland, and J. E. Ginter, Du Bois.

The annual banquet and dance were held at the Inn. After the banquet, W. E. Reiley, Clearfield, was presented with a wrist watch in remembrance of his services as secretary-treasurer during the past 17 years. Gerald Bliss, Altoona, resigned as editor, acting in this capacity for a like period of time.

THE THIRTEENTH annual scientific and clinical session of the American Congress of Physical Therapy will be held in Philadelphia at the Bellevue-Stratford, Sept. 10 to 13. This year's session will be especially noteworthy because of the excellent program which has been arranged. Outstanding clinicians and teachers will present the results of the newer researches in the field emphasizing short-wave therapy, hyperpyrexia, light

therapy, remedial exercise, massage, and other interesting subjects.

On Wednesday evening, Sept. 12, a joint session will be held with the Philadelphia County Medical Society.

Special features will be scientific and technical exhibits and the small group conferences. The latter have been arranged for Tuesday morning. Every specialty of medicine and surgery will be represented. The technical application of physical measures will be demonstrated and the fundamentals emphasized. The general sessions will be taken up with symposia on cancer, arthritis, poliomyelitis, industrial surgery, etc.

Friday, Sept. 14, has been set aside for hospital teaching clinics which will be held in the leading institutions of Philadelphia.

You should plan now to attend this very important medical gathering. Physicians and their technicians, properly vouched for, are eligible to attend. Send for preliminary program. Address American Congress of Physical Therapy, 30 North Michigan Ave., Chicago, Ill..

ROBERT H. IVY, professor of maxillofacial surgery in the School of Dentistry and in the Graduate School of Medicine of the University of Pennsylvania, has been elected to membership in the Imperial German Academy of Natural Sciences. The academy, which was founded in Halle in 1652 and is the oldest existing society of natural sciences in the world, includes among its membership outstanding investigators and teachers in the fields of mathematics, astronomy, physics, geology, botany, zoology, chemistry, and various branches of medicine.

Dr. Ivy, who was graduated from the School of Dentistry at Pennsylvania in 1902 and from the School of Medicine in 1907, is the author of several textbooks and numerous articles on maxillofacial surgery. During the World War he served in France as a major in the United States Army and is now a colonel in the medical reserve corps.

Other living members of the university faculty who have been honored by election to the Imperial German Academy of Natural Sciences are Charles H. Frazier, professor of surgery and a trustee of the University, and Herman Prinz, professor of pharmacology in the School of Dentistry.

DURING 2 WEEKS in June the Berks County Medical Society conducted its annual campaign to immunize children of preschool age in Reading against diphtheria. This year there was added a drive covering the last 2 weeks of April, during which time the members of the society agreed to immunize children in their offices for a reduced fee. The May drive was for those children of indigent families who could not afford to pay any fee to a physician. The leading pharmacists of Reading agreed to sell toxoid to physicians at a much reduced price. The Visiting Nurse Association and the physicians attending the Baby Welfare Stations cooperated.

In the county, Dr. Focht, county health officer, has been making every effort to secure adequate supplies of toxoid for all communities to carry on the same preventive measures as were executed in Reading.

In line with the action of the society, the school physicians of Reading sent to parents and to guardians a notice asking that all school children be immunized by their own family physician if possible; if unable to pay for the service, the parent could sign a permission slip attached to the notice, giving his consent to have the child immunized by a school physician.

THE EXECUTIVE BOARD OF TRUSTEES of the University of Pennsylvania voted on May 25 to establish a second professorship of medicine at the University and elected Dr. O. H. Perry Pepper to that post, marking the first time since the School of Medicine was founded 169 years ago that provision has been made for more than one professor of medicine.

In addition the term of Alfred Stengel, present professor of medicine, was extended by the board for 3

more years, although Dr. Stengel has reached the age of retirement after 41 years on the faculty of the School of Medicine.

The action taken by the executive board, as announced by Dr. Thomas S. Gates, president of the University, followed recommendations recently made by the medical faculty and later approved by the trustees' board of medical affairs, of which John E. Zimmermann is chairman.

Dr. Pepper, who is a brother of Dr. William Pepper, dean of the School of Medicine at Pennsylvania, is the third member of his family to be elected professor of medicine at the University.

His grandfather, who was Dr. William Pepper, held that position from 1860 to 1864, and his father, Dr. William Pepper, who died in 1898, also was professor of medicine for a number of years as well as provost of the University.

A graduate of the College at Pennsylvania in 1905 and of the School of Medicine in 1908, Dr. Pepper has served successively as assistant instructor in medicine, associate in medicine, associate in research medicine, assistant professor of medicine, and professor of clinical medicine at the University.

During the World War he was in the medical corps of the United States Army, attained the rank of lieutenant-colonel, and was in charge of the medical service at base hospital 69, Savenay, France.

He is a member of many medical organizations and has made important contributions to the field of medical literature, including an outstanding textbook on diseases of the blood.

THE TENTH ANNUAL SESSION of the Pennsylvania Public Health Association was held at the Warwick Hotel, Philadelphia, May 23 and 24. C. B. Crittenden, Wilkes-Barre, president, in the chair. The following program was observed:

May 23, Morning Session. Greetings were extended by Honorable J. Hampton Moore, mayor of Philadelphia; J. Norman Henry, director, Philadelphia Department of Health; and Walter S. Cornell, president, Philadelphia County Medical Society. President's Address, Dr. Crittenden, director, Angeline Kirby Memorial Health Center, Wilkes-Barre; "Food Poisoning," Clement S. Brinton, chief, Field Station, Food and Drug Administration, United States Department of Agriculture, Philadelphia; "Health and the School Child," J. Bruce McCreary, deputy secretary of health, Pennsylvania State Department of Health; "The Marihuana Cigarette Menace," Harold V. Smith, chief, Narcotic Section, Pennsylvania State Department of Health. At the luncheon meeting an address on "Eating in All Languages" was delivered by Charles H. LaWall, dean, Philadelphia College of Pharmacy and Science.

Afternoon Session. "The Public Health Day Movement in Pennsylvania," James M. Anders; "Physical Health Education in the Health Program," A. W. Thompson, director of physical education, West Chester Normal School; "The Present Status of Diphtheria Control," W. T. Harrison, surgeon, U. S. Public Health Service, Washington, D. C.; "Diphtheria Immunization," G. Foad McGinnes, epidemiologist, State Department of Health, Richmond, Va.; "The Work of the Pennsylvania Emergency Child Health Committee," Samuel McC. Hamill, chairman, Pennsylvania Emergency Child Health Committee; "Limitations of Official Medicine," Theodore B. Appel, secretary of health, Pennsylvania State Department of Health; "Public Health Nursing Supported by Public and Private Funds," Mrs. Mildred LaDue, director of health service, Community Health and Civic Association, Ardmore; and "Employment and Health," Mark M. Walter, director, Bureau of Rehabilitation, Pennsylvania Department of Labor and Industry.

May 24, Morning Session. "The Necessity of a Sterilization Law for the State of Pennsylvania," Mrs. Edward W. Bixby, Wilkes-Barre, trustee, Wilkes-Barre Welfare Federation; "The Functions of a County Health Association," H. A. Fritschman, president, Dela-

(Concluded on page xii.)

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MEDICAL NEWS

(Concluded from page 876.)

ware-Montgomery Counties Public Health Association; "Industrial Health," Mervyn Ross Taylor, medical officer, Bell Telephone Company, Philadelphia; "A Summary of the Agglutination Tests for Undulant Fever in the Pennsylvania Department of Health Laboratories," Ruth I. Purcell, State Health Department Laboratories, Philadelphia; "Health and the Public Health Nurse," Mrs. Mary S. Evans, R.N., chief, Bureau of Nursing, State Health Department Harrisburg; "Health Work in the C.C.C. Camps," Lieutenant-colonel L. W. Webb, Jr., assistant professor of military science, University of Pennsylvania; "Municipal Milk Control," George W. Grim, V.M.D., milk control officer, Milk Control District No. 1, Ardmore.

Afternoon Session. "Future Possibilities of the Relief Program in a Preventive Way," Harold A. Miller, director, Emergency Medical Relief, State Emergency Relief Board, Harrisburg; "A City's Milk Supply," James R. Smith, health director, Erie; "The Work of a Mobile Laboratory," Walter F. Heintzelman, epidemiologist, State Department of Health Laboratories, Philadelphia; "Scholastic Athletics and Tuberculosis," R. H. McCutcheon, medical director, Mont Alto Tuberculosis Sanatorium; "The CWA Diphtheria Survey in Philadelphia," Harriet L. Hartley, chief, Division of Child Welfare, Philadelphia Department of Health; "Typhoid Carriers," Mrs. Cora B. Gunther, bacteriologist, State Department of Health Laboratories, Philadelphia; "The Efficiency of the Health Dollar," Carl E. Buck, field director, American Public Health Association, New York.

One of the Philadelphia newspapers misquoted Dr. Appel, State Secretary of Health, in his address. The quotation in the paper is, "State medicine in some form is inevitable under the present economic system." Dr. Appel did not make this statement, and it is most unfortunate that he was misquoted.

DR. ROSS V. PATTERSON has been elected Sutherland M. Prevost professor of therapeutics at the Jefferson Medical College to fill the vacancy caused by the resignation of Dr. E. Quin Thornton, who was made emeritus professor of therapeutics. Dr. Patterson was graduated from Jefferson Medical College in 1904. For a number of years he was associated in the department of medicine at Jefferson Medical College, and more lately in the department of cardiology. For a considerable time he has been dean. He is a former president of The Medical Society of the State of Pennsylvania and at the present time is president of the Association of American Medical Colleges.

DR. ELIZABETH B. BRICKER, Lititz, head of the Industrial Hygiene and Sanitation Section, Department of Labor and Industry, Harrisburg, was discontinued June 16, 1934. Reorganization of the section was the reason given by the department. Dr. Bricker had been in State service for 21 years. She has been succeeded by Dr. William B. Fulton, Pittsburgh. Dr. Bricker was named inspector in the department in October, 1931, and was advanced through the various grades until she reached the position from which she was discontinued. The new section chief is a graduate of the University of Pittsburgh and for several years was attached to the faculty of the university's medical school. Dr. Fulton will have 2 chemists as assistants.

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ACUTE NEPHRITIS IN CHILDREN*†

Rational Treatment

JOHN D. LYTTLE, M.D., NEW YORK CITY

Discussion of any phase of nephritis usually begins with a classification. The one used by Addis gives a good working basis for clinical use and discussion. It is a modification of the Volhard and Fahr classification and divides kidney disease into three large groups: (1) Hemorrhagic Bright's disease; (2) degenerative Bright's disease; (3) arteriosclerotic Bright's disease. The two common kidney conditions met with in children are acute glomerular nephritis (hemorrhagic Bright's disease) and nephrosis (degenerative Bright's disease), and their management frequently offers interesting problems. This discussion will have to do with the treatment of these two diseases and their complications. There is no treatment aimed directly at the diseases or their cause. The multiplicity of measures and drugs used in treating Bright's disease is proof of their inadequacy. Therefore, there will be mentioned many forms of therapy for which good evidence of usefulness is lacking, and about which I have no firm convictions. This is inevitable because of our ignorance of etiology and pathogenesis and the mechanism of healing and repair. These children must be treated and we have some knowledge of the principles of nutrition and physiology. The basis of our treatment should be to do everything in our power to help the child fight his disease, and to refrain from those measures which may do him harm.

NEPHROSIS

The definition of nephrosis is best given by listing the positive and negative clinical findings.

<i>Positive</i>	<i>Absent</i>
Insidious onset without preceding infection	Hematuria
Edema	Hypertension
Albuminuria	Cardiac hypertrophy
Oliguria with high specific gravity	Retention
Low serum protein	Uremia
High blood cholesterol	
Low basal metabolic rate	
Chronic course	
Pathologically tubular degeneration	Significant glomerular or vascular changes

Except in those cases that follow prolonged suppuration (amyloid nephrosis) or syphilis, nothing is known of the etiology. Hence, there is no prophylactic or specific treatment and we must treat the patient as a whole.

The outstanding feature is edema, and the majority of procedures discussed here have for their object delivery of edema. First, some general principles of management may be mentioned. Rest in bed is important, especially if edema is extensive or increasing. If edema is not disabling, some activity may be allowed. Sweating is not very effective and is exhausting; hot baths are harmless, though of questionable value. Magnesium sulphate is the most useful cathartic.

Every effort must be made to avoid infection. Since these patients are very susceptible to infection, this is a difficult problem. Its importance can be judged by a statement made by Leiter: "The vast majority of deaths in nephrosis may be attributed to infection of peritoneal, pleural, or subcutaneous transudates by pneumococci or hemolytic streptococci and to respiratory diseases, perhaps developing on the basis of congested edematous mucous membranes with inefficient respiratory mobility of the lungs caused by increased intra-abdominal or intra-

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

† From the Babies' Hospital and the Department of Pediatrics, College of Physicians and Surgeons, Columbia University, New York City.

pleural pressures." In addition there is some reason for believing that infection plays a rôle in the development of glomerular nephritis, and it is a common clinical observation that following bouts of infection these patients frequently develop hematuria, hypertension, and nitrogen retention. A glomerular nephritis superimposed on a nephrosis makes the prognosis much worse. Prophylaxis of infections is very important. So we cut down as far as possible all contacts and especially contacts with those harboring an infection. "Building up resistance" is a common expression in this connection. Most of us believe that the diet should be adequate in every respect, and that the patient should have fresh air and sunshine, should avoid fatigue, chilling, or exposure. The climate of the Southwest offers more advantages, as a rule, than that of the East. If anemia is present, transfusion may be indicated. You are no doubt familiar with many other measures for "building up resistance." Nothing definite can be said about these procedures because there is so little critical or controlled work behind them.

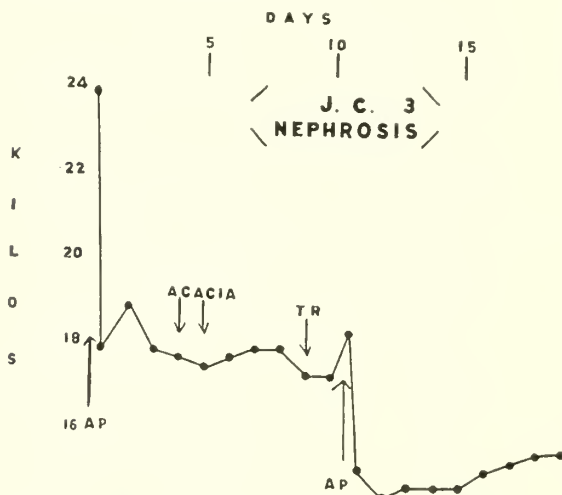


CHART 1.—J. C., a boy, age 3, who, at the time these observations were made, had nephrosis for 6 months. During this time the edema never subsided spontaneously and had resisted all forms of dietetic and medicinal therapy. The chart shows the initial loss after abdominal paracentesis, followed by a gain. The injections of 20 grams each of gum acacia in 24 hours were followed in a few days by a transfusion. More than enough acacia was given to raise the osmotic pressure to normal levels. There was no diuresis and edema remained the same, except for the loss incident to paracentesis.

Foci of Infection.—Spectacular cures have been reported following drainage and irrigation of the paranasal sinuses. We have been unable to get results this way, but infected sinuses occurring in any condition should be treated. Diseased tonsils and adenoids should be removed, in a remission if possible, or at a time when they are not acutely inflamed. I have seen them removed at all stages of the disease without any apparent effect on the course of the disease.

Belief that tonsillectomy lessens the incidence of respiratory infection is the reason for the operation in most cases.

Liquid Intake.—Most children do not bear rigid restriction of liquid well. Except for occasional dry days, it is best to allow enough water to keep them comfortable. This seems to do no harm and has little effect on the edema.

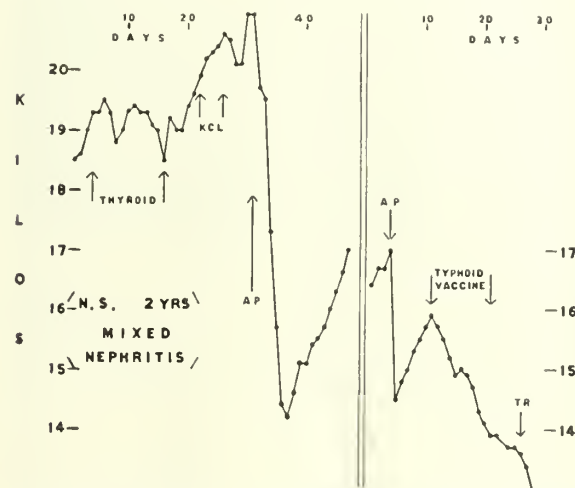
Diet.—There is every indication for a high protein diet in nephrosis. The chief cause of the serum protein deficit is the persistent heavy albuminuria. Since the ability of the kidney to excrete protein waste material is not impaired, a high protein diet can be given with safety. The object of the diet is to replace the protein lost in the urine and to promote protein retention and so raise the serum protein to normal levels. Peters and Bulger have found that if their patients are given an excess of protein in the diet they will store this excess within certain limits. It is difficult to get children to take this diet. It is easy to order a high calorie, high protein diet, but if the refusals are weighed, one can see how difficult it is to obtain even an adequate protein intake. When the diet is well taken the results are not always what one hopes for. To get these patients to eat calls for all the ingenuity and resources that the nurse and dietitian may have. There is some evidence that insulin, in addition to stimulating appetite, promotes nitrogen retention. This should be investigated.

A salt-poor diet has always been advocated in nephrosis and on the basis of clinical evidence seems indicated. It is, however, almost impossible to get the salt intake lower than 3 grams per 24 hours. The subject of low ionic diets is being investigated with respect to their relation to edema, and some of the results seem of value to the clinician. In children, the simplest way to institute this diet is to give 25 per cent glucose for periods of 1 to 3 days. It is not safe to give this for long periods. Lashmet reports good results with an acid ash diet and added hydrochloric acid.

Blood transfusion has been advocated to raise the level of serum protein and therefore increase the colloid osmotic pressure of the plasma. It is obvious that not enough protein can be given in this way to have any significant effect on the serum protein level or the oncotic pressure. It would seem that serum transfusions might be of some use or that a method might be developed for injection of concentrated serum protein. Hartmann has recently reported good results with infusion of gum acacia to raise the colloidal osmotic pressure of the plasma. Our experience with the method has not been so successful as his. The question always arises as to how long

these substances can stay in the system and exert their effect if the kidney is abnormally permeable to colloids. Unfavorable reactions have occurred because of impurities in the acacia. Another point which seems to have been forgotten is that while nephrotic edema may be largely dependent on the levels of serum protein and colloidal osmotic pressure of the plasma, these are not the only factors in its formation. Nevertheless, further investigation along these lines would seem worth while.

Surgical Procedures.—Cardiac or respiratory embarrassment are the indications for abdominal paracentesis or thoracentesis. In extreme cases Southey's tubes or multiple skin incisions may be used to drain the extremities, but the danger from infection often outweighs the benefit obtained. Most observers agree with Gainsborough that decapsulation is quite useless.



CHARTS 2 and 3.—N. S., a boy, age 2, began as a pure nephrosis, but because of recurrent upper respiratory infection developed glomerulitis. The first observation shows no effect on the weight curve with large doses of thyroid and potassium chloride. The immediate loss in weight following paracentesis was followed by further losses due to drainage through paracentesis wound. The second observation shows the loss in weight that accompanied injections of typhoid vaccine followed by transfusion. The injections were given every other day and the temperature was as high as 103° F. The weight went from 16 to 12 kilograms in 20 days. During these periods

Many diuretics have been used in nephrosis, and diuresis has been observed during or following their use. There is no diuretic or group of diuretics that can be relied upon to set up diuresis and deliver edema, nevertheless, one cannot say offhand that diuretics are of no use in nephrosis, and in spite of the variability of their action they should all be tried.

Salyrgan and novasurol in combination with ammonium chloride have been used with good results. There is no doubt that these are powerful diuretics but there is good reason for believing that they injure already damaged kidneys. Bismuth compounds have been used as

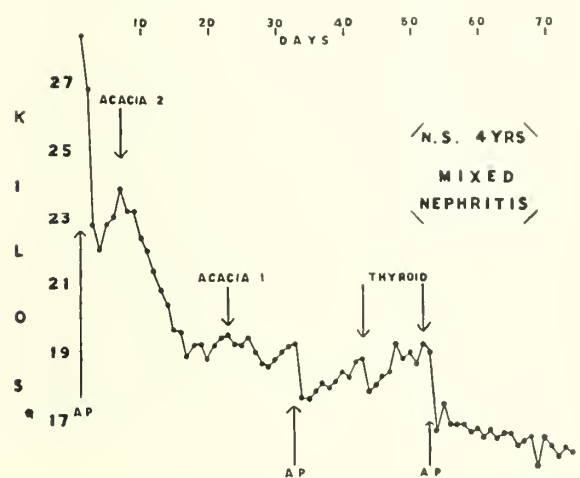
diuretics, but according to Fishberg they are not as efficient as salyrgan.

Saline Diuretics.—In a certain number of cases, potassium salts have induced a definite diuresis. Barker stresses the point that if these salts are given the diet must contain a low ratio of sodium to potassium. Acid-forming salts (ammonium chloride, calcium chloride) are sometimes effective, possibly through the acidosis produced.

Urea is occasionally useful as a diuretic in nephrosis. It should be given in large doses, 10 to 20 grams 2 to 4 times a day. There is a moderate rise in blood urea, but this is harmless.

The purine derivatives are probably useless in nephrosis.

Among other drugs used is thyroid. The low basal metabolic rate and the anatomic changes in the thyroid reported by some observers serve



there was no significant decrease in albuminuria or other urinary findings and no rise in serum albumin. We lost sight of him until he was age 4, at which age the disease was somewhat more advanced. The second chart shows the loss in edema following 2 injections of 20 grams each of gum acacia. Considerable edema was still present and a second injection of acacia 2 weeks later gave no results. Thyroid pushed to 10 grains a day had no effect. A month after these observations bronchopneumonia developed with renal insufficiency and he died. There was no necropsy.

as the basis for this form of therapy in nephrosis. Dosage should be small at first and rapidly increased to from 10 to 15 grains a day. In some cases edema and albuminuria have been controlled by this drug, but failure is more common than success.

Parathyroid extract has been used by various workers with good results. In the few cases that I am familiar with in children it has been a failure.

Many of us have observed edema subside after a severe infection such as pneumonia, measles, pneumococcus peritonitis, etc. This brings up the question of foreign protein ther-

apy, diathermy, and radiothermy. Investigation along these lines deserves notice.

Complications.—There is no agreement as to the best way to treat pneumococcus or streptococcus peritonitis if it develops. Simple incision and drainage would seem to have no advantage over removing infested fluid by means of a trocar. Some patients recover though nothing is done. Upper and lower respiratory infection and cellulitis are to be treated along the usual lines.

ACUTE GLOMERULAR NEPHRITIS

The clinical picture of acute glomerular nephritis is familiar to you and probably needs little discussion. In the severe cases the onset following an infection (usually streptococcal) with edema, hematuria, and hypertension as the cardinal symptoms is striking and cannot fail of diagnosis. It should be emphasized, however, that the majority of cases of this type of nephritis are not recognized or diagnosed. Addis states that "particularly in adults, the patients that a physician sees are apt to have the disease in an unusually intense form, while those in whom the symptoms are less pronounced quite frequently elude all observation." In my experience this statement applies equally well to children. While there may be no constitutional symptoms, edema or hypertension, and only microscopic hematuria, even the ordinary routine urinalysis will show a definite nephritis. All the weight of clinical evidence seems to show that this type of nephritis is associated with the hemolytic streptococcus, but the etiology and pathogenesis have not been proved.

TREATMENT

There is no treatment which can be said to have a direct effect on the course of the disease, nothing which is aimed at the lesions in the glomeruli, tubules, and capillaries or the infection which has set up the damage.

Prophylaxis.—Given a child with scarlet fever or streptococcal infection, how can the development of glomerular nephritis be prevented? I believe with Schick that "it is settled early in the councils of the disease which cases will get nephritis." Nevertheless, procedures honored by tradition may have some truth in them.

Avoid exposure to cold and wet. This is done with any ill child, no matter what the disease. There is some clinical evidence that cold is an important predisposing factor in the onset of acute glomerular nephritis. Addis tells the story of the "nephritis bed" in a scarlet fever ward. Many of the children in this bed developed nephritis. Then some one observed that the bed

was so situated near a ventilator that a draught of cold air was directed against the backs of the patients if they sat up. When the ventilator was closed, the nephritis rate of the bed dropped to normal. Be that as it may, many children carefully protected during convalescence develop nephritis.



CHART 4.—F. V. D., a boy, age 2, had nephrosis for 5 months preceding this observation. The history states that without treatment the edema had 4 times been eliminated. The chart shows the variations in weight that occurred spontaneously or in relation to infection and treatment. Blood was taken just before and 8 hours after the first injection of acacia. On the chart at this point the cell volume (C. V.) and serum protein value before and after the injection are indicated. The drop in cell volume and serum protein is more than can be accounted for by dilution, since only 60 c. c. of liquid were injected. We must assume that there was withdrawal of liquid from tissues into the blood stream. Throughout this period there has been no significant change in the albuminuria or level of serum protein. It is interesting in view of the frequent and severe infections he has had that he has never shown evidence of glomerulitis (no hypertension, nitrogen retention, or hematuria). He has remained a pure case of nephrosis.

Scarlet Fever Antitoxin.—It is claimed that the use of antitoxin will diminish the incidence of glomerular nephritis in scarlet fever. There is no good basis for this claim.

Tonsillectomy and Adenoidectomy.—Since infection is less frequent in children who have had their tonsils removed, it can be said that this operation may prevent some cases of glomerulonephritis. It is a difficult matter to prove. Of 44 patients with nephritis over 3 years of age, 15 had their tonsils and adenoids removed before onset.

Diet During Convalescence.—For years it was believed that in scarlet fever a milk diet or a low protein diet prevented the onset of nephritis. This has done much harm, and investigation has proved that it is of no value in preventing nephritis.

Briefly, about all one can do is to treat the acute infection in the most rational manner and keep the patient under observation during the latent period following the infection.

It is reasonable to believe that avoidance of infection, exposure, and chilling will tend to prevent recurrent attacks of nephritis, though there are no figures to prove this. Many children who have had nephritis go through subsequent infection without demonstrable kidney damage.

We are as yet unable to prevent the development of chronic glomerular nephritis.

TREATMENT IN THE ACUTE STAGE

General Measures.—Bed rest is important for the period of the acute attack, as activity increases the albuminuria and hematuria. This period usually lasts from 4 to 6 weeks. If at the end of this time there is no hypertension, and the urine shows only slight changes, the patient may be allowed up. The patient should be watched carefully and if a gradual resumption of normal activity causes definite persistent increase in urinary changes, oliguria, or hypertension, he should go back to bed. If one waits for an entirely normal urine before allowing the patient to be up, one may wait a long time. It is important that the patient be kept warm and out of draughts. He should avoid contact with any type of infection. Instead of sweating and hot packs it is better to use the warm bath, 20 to 30 minutes once or twice a day, followed by warm blankets in a warm bed to promote perspiration. There may be some doubt as to the efficacy of the warm bath in promoting a freer circulation in the kidney. That the capillaries in the skin and kidney react consensually was proved for animals by Cohnheim and Roy and others. The best cathartic to use is 50 per cent magnesium sulphate, one-half to one ounce, once or twice daily.

Medicinal Treatment.—There is no medicinal treatment worth mentioning. Magnesium sulphate, in addition to its laxative effect, tends to

lower blood pressure, and according to Aldrich, will prevent the development of pseudo-uremia (cerebral edema). Diuretics are of little or no use, may do harm, and should not be given.

Diet and Liquid Intake.—For the first 24 to 48 hours after onset, the best diet is 25 per cent glucose in water and as much orange juice as the child desires, up to 1 liter. This gives an opportunity to make the necessary diagnostic studies and determine kidney function. There is no reason for any rigid restriction of liquid. No rule can be laid down, but in general, no harm will be done by giving liquids as the patient wishes. There is no virtue in forcing liquids.

All are agreed that the diet during the acute stage should be such as to spare the kidneys as much as possible and that the caloric needs of the child may be disregarded for the first 4 to 7 days. This means a diet low in protein and salt and rich in carbohydrate and fat. This is met by a diet containing cereals, vegetables, rice, butter, cream, fruit juices, and cooked fruit. If diuresis sets in, and blood pressure comes down to normal, and there is no nitrogen retention (usually this occurs at 7 to 14 days after onset), the diet may be made adequate in every respect, with enough protein to maintain nitrogen equilibrium, and a total salt intake of 3 to 5 grams daily. If there is steady improvement, with only slight changes in the urine at 4 to 8 weeks, the usual diet considering age, weight, and activity should be instituted. This is sometimes difficult to do, because Bright's disease to the laity (and the profession) has meant "no meat, no salt." A trace of albumin with a few casts and cells indicates that the lesion is not entirely cured, yet if the specific gravity of the urine shows that kidney function is adequate, we have no real basis for any restriction of the diet. Anemia and undernutrition do not help this disease.

Certain special forms of diet may be mentioned at this point. Vollhard advocates hunger and thirst for the first 3 to 5 days of the attack. This is rather vigorous treatment and difficult to carry out in children. Eimer and Voigt recommend a diet of uncooked food—fruits, vegetables, olive oil, egg yolk, cream, and condensed milk with liquid intake about 1 liter. This is a low protein, low salt, alkaline diet and is readily taken by the patient. The authors report good results, especially in the acute cases.

There are a number of cases in which edema is a troublesome feature. Instead of the few pounds of edema ordinarily seen, there may be 20 to 30 pounds, with liquid in the chest and

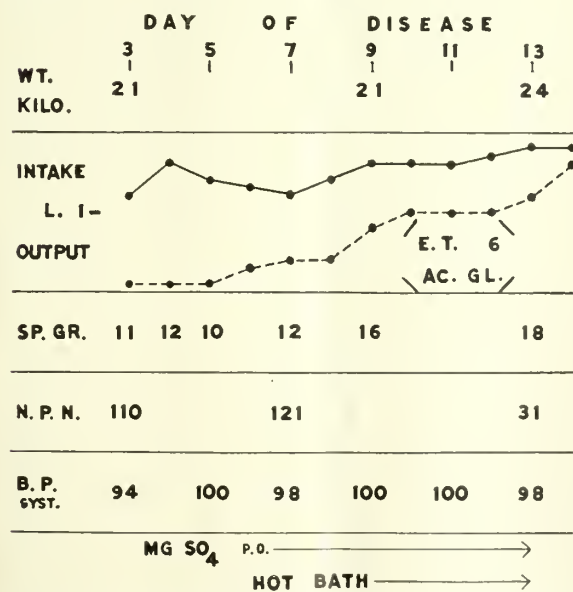


CHART 5.—E. T., a boy, age 6, with acute glomerular nephritis following tonsillitis. Oliguria and nitrogen retention with good response on conservative treatment. It is interesting to note the low specific gravity of the urine in spite of the low volume and heavy albuminuria and hematuria. Complete recovery followed for 1½ years.

abdomen. If this is the case, it will usually be found that there has been a persistent and heavy albuminuria and that the serum protein is low with a reversal of the A:G ratio. Clinically this makes the case a mixed nephritis or nephritis with a nephrotic component. Yet subsequent events show that this is not a true nephrosis.

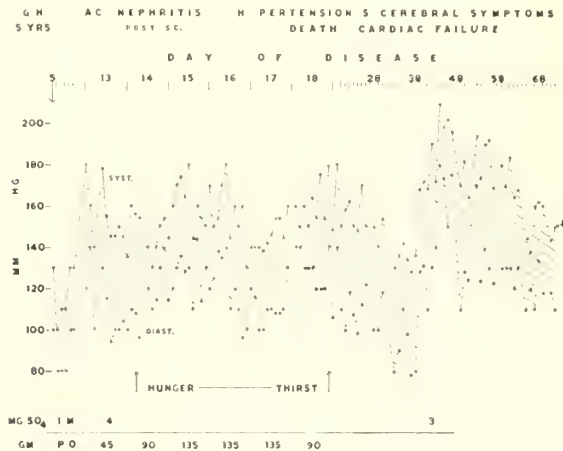


CHART 6.—G. II., Negro boy, age 5, admitted on the fifth day of a postscarlatinal nephritis. There was generalized edema, more than to be expected with this type of nephritis, and the serum protein was low with reversal of A:G ratio. The nonprotein nitrogen content was 76 mg. per 100 c. c. The urine showed many casts, 1111 benzidine, and albumin 10 grams per liter. The moderate hypertension present on admission dropped the next few days, but on the ninth and tenth days the systolic pressure had risen to 130 mm., with diastolic, 100 mm. For some reason blood pressure was not taken for 2 days. Routine examination on the thirteenth day showed a systolic pressure of 180 mm.; diastolic, 140 mm. This was not accompanied by symptoms of any sort—he was rational, without headache, visual disturbances, or gastro-intestinal symptoms. The fundi were normal, there was no oliguria or increase in weight. In the absence of cerebral symptoms it was thought that the hypertension was due to generalized vasoconstriction. There was little change in his clinical condition or urinary findings.

Various measures used to control the hypertension were without success. He died from heart failure on the seventy-second day of disease. Necropsy showed subacute glomerular nephritis and cardiac hypertrophy and dilatation. There were no vascular changes.

Instead of the usual chronic course, diuresis sets in, edema disappears, and the serum protein becomes normal. Recovery under the ordinary régime is the rule. In other cases oliguria may be troublesome, and in some cases anuria may develop. These are the cases in which various stunts are tried. Volhard thinks the hunger and thirst régime is of benefit, and if that fails he gives large amounts of water in a short time. Roentgen radiation of the kidneys has been recommended by Savioli. Eppinger has used diathermy of the kidney region and reports immediate diuresis in two cases with extreme oliguria. Decapsulation is always considered and sometimes carried out. Without experience with these methods, a conservative régime has been found satisfactory. In children, oliguria is very variable, in many cases it is not present, in others it may last only a few days, while in some it may persist for 7 to 10 days. The vast

majority of cases respond to ordinary care with magnesium sulphate, colonic irrigations, and hot baths. None of the measures employed has anything to do with freeing plugged glomeruli or altering the circulation in the kidney. True uremia (renal insufficiency) is a very rare occurrence in acute glomerular nephritis in children. When it does supervene the protein and salt intake should be rigidly restricted, but liquid should not be restricted. The bowels should be kept open with magnesium sulphate, and warm baths and colonic irrigations may be tried. Good results have been reported with hypertonic glucose intravenously. Symptoms may be treated as indicated, but no attempt should be made to control diarrhea. It must be admitted that we have no means of forcing the kidney to increase excretory activity.

COMPLICATIONS

The complications are perhaps the most important part of acute glomerular nephritis and according to a colleague they are the only excuse for a doctor to see a patient with this disease. There may be some truth in that statement, since the mortality in the acute stage is due entirely to these complications. We will consider hypertension with cardiac failure, hypertension with cerebral symptoms, and infection.

Hypertension is said to be one of the cardinal symptoms of acute glomerular nephritis, yet in children it is present in little more than half of the cases. If the disease takes its ordinary course the moderate hypertension present at onset drops rapidly to normal levels with the clinical improvement in other symptoms. In some cases the hypertension persists and becomes more severe, gradually coming down in some cases, in a few others persisting until cardiac failure supervenes. This type of hypertension in children is not accompanied by cerebral symptoms or signs of increased intracranial pressure, and oliguria is not a feature. The cause of the hypertension is not known. It is usually thought to be due to generalized angiospasm but examination of the fundi reveals no abnormalities. Treatment is unsatisfactory. In addition to the dietary régime and other measures mentioned, one has recourse to venesection, lumbar puncture, magnesium sulphate intramuscularly, the nitrites, and the various sedatives, such as chloral hydrate and morphine. My impression from the few cases of this sort under my care is that the less done the better it is for the patient. If you can insure absolute rest you will do more for the patient than will be accomplished by many questionable pro-

cedures. We might as well admit we do not know how to handle this problem and treat symptomatically as best we can.

There is another group of cases showing hypertension but associated with cerebral symp-

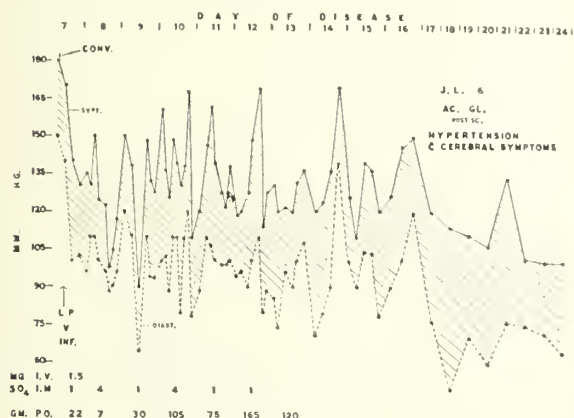


CHART 7.—J. L., a boy, age 6, admitted on the twenty-second day of scarlet fever with a history of edema of the ankles 7 days, and convulsions 2 days before admission. On admission he did not seem acutely ill; there was questionable pretibial pitting, fundi were negative. He voided 18 oz. of bloody urine on admission; he was rational but complained of headache. The blood pressure was 180 mm. systolic, 150 mm. diastolic. Two c. c. of 50 per cent magnesium sulphate was given. The medication was vomited when given by mouth. Four hours later he was blind and in convulsions. These were controlled by magnesium sulphate in the vein, muscle, by mouth and by lumbar puncture, venesection, and infusion of 50 per cent glucose. The next few days was drowsy and irritable and complained of headache. The hypertension fluctuated, possibly because of the magnesium sulphate used intramuscularly. There were no cerebral symptoms after the tenth day, but the hypertension continued and varied with no relation to treatment.

toms. This condition was formerly thought to be uremia, but the work of Volhard and Blackfan has shown that renal insufficiency is seldom present in this syndrome and when it does exist it is not the cause of the symptoms. It is discussed under various terms, acute uremia, pseudo-uremia, eclampsia; Fishberg calls it hypertensive encephalopathy, while Blackfan prefers the term cerebral symptoms of acute glomerular nephritis. According to Blackfan the necropsy invariably shows cerebral edema, the brain weighs 20 to 30 per cent more than normal, the convolutions are flattened, and the medullary cone phase may be present.

This condition accounts for more than half of the 4 to 6 per cent mortality in acute glomerular nephritis. Since it is so serious and since early treatment is so successful, the diagnosis deserves discussion. The onset can occur at any time during the acute stage of the disease. The prodromal symptoms are vomiting, headache, drowsiness, and visual disturbances. Objectively there is hypertension, slow pulse and respiration, coma, delirium, and convulsions. Convulsions may occur without any prodromes. Oliguria may or may not be present and there is usually an increase in edema, though this is

often shown only by the weight curve. The fundi may or may not show changes. Blood urea is usually normal but may be elevated. It should be emphasized that there is no relation between these attacks and nitrogen retention. The most important sign is a rising blood pressure; this is a danger signal not to be ignored. In any child with convulsions this diagnosis must be considered. In going over my cases the admission diagnoses in 5 of the cases were epilepsy, tuberculosis meningitis, encephalitis, brain tumor, and convulsions of gastro-intestinal origin. Routine urinalysis and a physical examination which included blood pressure determinations led to the proper diagnosis.

The management of this complication is important since if the patient can be carried over the convulsive stage, complete recovery is the rule. In the prodromal stage with rising blood pressure, headache, and vomiting, 30 to 60 c. c. of 50 per cent magnesium sulphate by mouth or by rectum, repeated every 4 hours, will bring down the blood pressure and relieve symptoms. If the desired effect is not obtained or the symptoms become more severe, Blackfan recom-

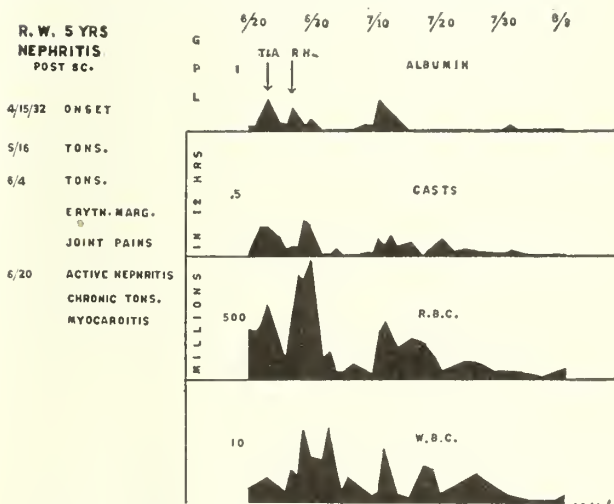


CHART 8.—R. W., a boy, age 5, developed postscarlatinal nephritis on April 15, 1932. The urinary changes did not improve and were made worse by two attacks of tonsillitis. Following the second attack, erythema marginatum and vague joint pains developed. He was referred to the Babies' Hospital for tonsillectomy, June 20, 1932, two months after the onset of nephritis. Examination at this time showed a moderately active subacute nephritis with good kidney function, chronic tonsillitis, clinical and electrocardiographic evidence of myocarditis and erythema marginatum.

Was considered to be a rheumatic subject likely to develop an acute rheumatic attack at any time, and almost certain to develop one if tonsillectomy were performed. Nevertheless it was thought that the tonsils should be removed and that there was enough cardiac and renal reserve at this time to carry him through. Tonsillectomy was performed on June 23. The urine improved somewhat for a few days following the operation and there was no unusual immediate reaction. On the fifth day postoperatively a typical rheumatic attack developed with fever, leukocytosis, endocarditis, and myocarditis. There were no joint manifestations. There was an exacerbation of the nephritis. Was acutely ill for 7 days and then began to improve rapidly. Discharged in August, clinically much improved, and the electrocardiogram showing only marked sinus arrhythmia. Four months after tonsillectomy the nephritis was completely cured and there was no clinical or electrocardiographic evidence of carditis. Follow-up examinations to date (1½ years) show no evidence of cardiac or renal disease.

mends the intramuscular injection of the drug, the dose being 0.2 to 0.4 c. c. of 25 per cent solution per kilogram of body weight. If necessary this can be repeated in 2 to 4 hours. The blood pressure is the safest guide in regulating dosage.

If coma and convulsions are present, the intravenous injection of 2 per cent solution of magnesium sulphate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$) will relieve symptoms and decrease blood pressure promptly. The amount required is from 100 to 150 c. c. The injection must be given slowly, 3 to 5 c. c. per minute, and the blood pressure must be followed during the injection. Blackfan has given up the use of intravenous injections since he has found that the action is almost as prompt by the intramuscular route. I have seen no bad reactions following the use of large amounts of this drug. If respiratory depression develops it can be relieved by the use of calcium chloride (2 to 5 per cent solution parenterally).

Other measures used for the relief of this condition are infusion of 50 per cent glucose, venesection, and lumbar puncture. In my experience it has seldom been necessary to use these. In connection with lumbar puncture it must be remembered that in the presence of increased intracranial pressure the sudden withdrawal of large amounts of fluid may induce the medullary cone phase. The use of magnesium sulphate intramuscularly followed by appropriate doses by mouth or by rectum will in most cases control symptoms.

In all cases of acute nephritis the problem of infection arises at some time. First will be discussed the management of infection occurring during the acute stage of the nephritis, and then the questions of whether and when to attack foci of infection.

If during the acute stage of the nephritis a pneumonia or sepsis develops, or acute appendicitis, a mastoid requiring surgical intervention, an empyema of the antrum, or an otitis, we are perfectly safe in following the major indications, treating the condition along the usually accepted lines, and disregarding the nephritis. Fortunately, in the majority of children with nephritis, there is a safe measure of kidney reserve and these interferences cause little more than a temporary setback. Even if some degree of renal insufficiency exists, it is safer to do what is urgently indicated. Oral hygiene and dental care are the right of every child whether he has nephritis or not. The majority of these conditions are best cared for in the convalescent period. Acute conditions of the teeth and gums such as alveolar abscess should be treated as indicated regardless of the nephritis. The treatment

of infection of the paranasal sinuses is always a subject for discussion. An infected antrum should be drained and irrigated through the natural opening if possible. The generalized sinusitis that accompanies every upper respiratory infection in children should be treated along conservative lines. None of us is vigorous enough in the use of simple measures, such as blowing the nose, nasal irrigation and suction, and the use of local applications which will promote drainage. It is by no means certain that such treatment has a beneficial effect on the nephritis, but it does no harm.

There is a difference of opinion in some cases whether tonsillectomy and adenoidectomy should be performed. In a patient with a history of frequent sore throats, with enlarged and diseased tonsils, and adenitis there is no difficulty in deciding on a tonsillectomy. Recurrent sore throats and adenitis during convalescence indicate a tonsillectomy, and in any case that does not show marked clinical and urinary improvement 4 weeks after onset the question should be considered. A child who has had nephritis after an attack of tonsillitis should have tonsillectomy whether he has any discoverable evidence of disease or not. Guild, in analyzing the cases at Harriet Lane Home, concluded: "Although many of the patients are now entirely normal in spite of neglect of foci of infection following the attack of nephritis, the fact that several of those now showing some abnormality are among those neglected makes one feel that it is wise to attend to such foci promptly in all cases." The grounds for this vigorous attack on foci of infection do not rest on a very firm foundation. Our lack of accurate and complete knowledge of the etiology and pathogenesis of both acute and chronic nephritis permits no one to take a secure position. Yet those of us who are studying the disease and who have to treat these children cannot ignore the weight of clinical evidence which is rapidly being backed up by careful immunologic studies. Addis says we cannot write: Hemolytic streptococcus + patient = nephritis. This is quite true but in all carefully studied series of cases there is substantial agreement that infection appears in close relation to the acute nephritis. Of 66 cases at the Babies' Hospital, 60, or 90 per cent, gave a definite history of preceding infection. Of these, 97 per cent were infections of the upper respiratory tract or its appendages. Our chief object in removing foci is to prevent the development of chronic nephritis. This is based on the theory that chronic nephritis is due to the continued presence in the system of some unknown toxic material, from foci of infection, which is continu-

ally damaging the kidneys, or rendering tissues more susceptible to damage. It is true in my experience that chronic nephritis is always associated with chronic infection. Against this theory we have the well established fact that if chronic nephritis has developed, treatment or removal of foci does not alter the course of the disease or the activity of the process, and also the well-known fact that many children who have had acute nephritis go through subsequent recurrent or chronic infection without developing chronic nephritis.

tion of the throat is of more importance than the activity of the nephritis in deciding on the time for tonsillectomy. In the ordinary case that under a rational régime shows a prompt decrease in albuminuria and hematuria, has no hypertension or nitrogen retention, and has good concentrating ability, if the throat is not acutely inflamed, tonsillectomy is done in the period from 3 to 8 weeks after onset, even though moderate urinary changes are present. In some instances operation is performed earlier. Each case calls for individual study. In those cases that have recurrent sore throats or adenitis during the acute stage or convalescence, tonsillectomy should be carried out as soon as the condition of the throat permits, no matter what the urinary changes are. If a case of acute nephritis shows no marked improvement at the end of 2 or 3 weeks and there is any evidence or history of diseased tonsils, prompt tonsillectomy should be done.

The chief objections to the removal of tonsils during the acute stage are, specifically, that it causes a flare-up in urinary findings and, generally, that "it makes them worse," "stirs up trouble," etc. If we make careful clinical studies, we can see that the flare-up in the urine following operation is not the same thing that occurs following a recrudescence of tonsillitis or adenitis. It does not last as long and is not accompanied by edema, hypertension, or nitrogen retention, whereas, the reaction following recurrence of tonsillitis usually means a real exacerbation of the nephritis in all its manifestations. It is another attack of acute nephritis. There may be some question as to the benefits that follow tonsillectomy in these cases, but the objection that the operation does harm when performed in the acute stage, in the light of my experience, does not seem a valid criticism.

In making a plea for early removal of foci, the experimental and clinical evidence is not too strong. My own series of cases of chronic glomerulonephritis is too small and has not been followed long enough to allow any conclusions to be drawn. Of 15 cases of chronic nephritis, 5 had tonsillectomy before the onset of acute nephritis and 10 had the operation during the subacute or chronic stage of the disease. The failure of this procedure to alter the course of the disease led us to consider the possibility that early removal of foci would lower the incidence of chronic nephritis. It will take observations from many clinics over a long period of years before the fact can be established.

Babies' Hospital.

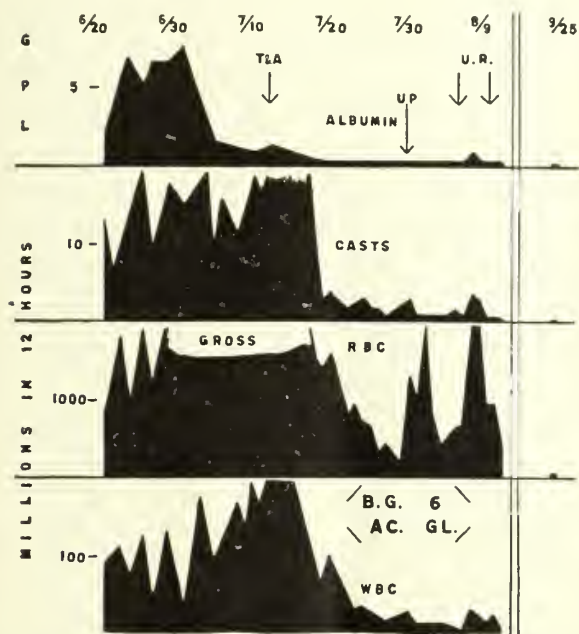


CHART 9.—B. G., a boy, age 6, with acute glomerular nephritis following tonsillitis. Our observations began 2 days after onset. Instead of improving with rest in bed and a suitable régime he became worse. The edema increased, blood pressure increased from 100/66 to 136/100 and the nonprotein nitrogen increased from 59 mg. to 78 mg. per 100 c.c. The urinary findings became progressively worse. For reasons given in the text, tonsillectomy was done on the twenty-third day. This was followed by improvement in clinical and urinary findings. Was allowed to be up July 31. This was followed promptly by an increase in hematuria and a few days later by an upper respiratory infection which caused a flare-up in the urine. Three months after the operation the boy is clinically well and going to school. The routine urine analysis is normal but the Addis count shows the nephritis to be in the latent stage. We cannot say that the observed clinical improvement is due to the tonsillectomy, but we can say that the operation performed at the height of the acute nephritis did him no harm.

Fishberg states that "even if the tonsils are definitely diseased and the nephritis follows an attack of tonsillitis, tonsillectomy should not be carried out during the acute stage of glomerulonephritis." This is the generally accepted practice. In the practice of medicine there are very few hard and fast rules, and in certain cases in children this rule should be disregarded. For reasons which are discussed later it has been my practice for some time to do tonsillectomy as early in convalescence as possible. The condi-

ously of sterile tap water has yielded essentially the same result.

Mention follows of a few observations indicating that the quantity of water entering into injections employed in small volumes may and frequently does have an important bearing upon the interpretation of the effects produced.

Experience, for instance, shows that within 24 hours after injection of distilled water, saline solution, and many other agents which by volume consist almost entirely of water, a considerable increase in the red cell count is observed and further injection at suitable intervals yields a further increase. Obviously, therefore, any increase which does not exceed that concerned here cannot be ascribed to the substances contained in the water.

The injection of distilled water, of saline solution, or of tap water, is in reality the injection of water alone, of water to which has been added the particular minute amount of salt, or water containing the various substances entering into tap water. Since the injection in appropriate amount of either of these agents elicits therapeutic effect, it should be expected that the same effect would follow the injection of any of the agents, in the same amount, to which is added either a small quantity of morphine, atropine, strychnine, epinephrine, or other substance. The results obtained in a large number of cases have fully justified this expectation. An illustrative case is cited.

H. G., male, age 61, stated that for 17 years he has suffered from asthma, that at no time during the past 2 years had he been free from wheezing, or escaped 2 to 4 paroxysms a day. Seen for the first time during an attack. Subcutaneous injection of 1.5 c.c. normal saline solution (*i. e.*, an amount of this agent estimated to elicit therapeutic response) to which was added 5 minims of epinephrine solution, was followed in 8 minutes by the usual relief afforded by epinephrine, within 12 hours by a definite decrease in the wheezing and then complete freedom from this symptom excepting at night for a period of 10 days.

Experience has shown that the injection of either distilled water, saline solution, or tap water, in fractions of the advised or intensifying dose, repeated at 24 hour or shorter intervals, is followed by an intensification of the symptoms when the sum of the fractions exceeds the known intensifying amount. It should be expected, therefore, that the same results would follow such repeated injection of either of these agents to which has been added a small quantity of either morphine, strychnine, atropine, epinephrine, or other substance, *i. e.*, should follow the repeated use of the commonly employed hypodermic medication. This expectation too has been fully justified by the results obtained

in many cases. Two are cited illustrating this feature, also what has been often demonstrated, that intensification evoked on injection, unless appearing in too marked a degree, may be followed by therapeutic response if further injection is discontinued until that effect has disappeared.

E. T., middle-age female, had suffered bronchial asthma for 3 years. History of frequent paroxysms, beginning about 3 weeks previously, which were relieved on the injection of 1 c.c. doses of epinephrine solution, but which gradually became more and more frequent until 9 injections were averaged daily. That is, repeated injection of 1 c.c. amounts of an aqueous solution at short intervals, day after day, was followed by marked intensification. Further treatment by injection was, therefore, ordered discontinued to avoid greater intensification. Ephedrine by mouth was given for attacks of which only 2 were experienced the first night, one the second night, none thereafter for 10 days. That is, after removing the cause of intensification the symptoms promptly abated.

Mrs. A. D., age 24, two months' pregnant. History of vomiting which was gradually becoming worse and, during the past 3 days, in spite of being put to rest in bed and receiving hypodermic injections of strychnine sulphate, gr. 1/30 t. i. d., and atropine sulphate, gr. 1/200 q. 3 hr., no food or liquids could be retained and marked prostration supervened. That is, marked intensification followed repeated injection of small amounts of aqueous agents. Further injection was ordered discontinued. Ginger ale, the last thing retained, was allowed as wished; was able to retain ginger ale after 24 hours; ginger ale and broths after another 24 hours. Third morning awakened with an appetite; retained food and liquids thereafter.

A considerable percentage of asthma sufferers are very susceptible to taking cold and on doing so the latent cases are immediately reactivated and the active cases are immediately intensified. Until 8 years ago, my attempts to produce immunity to cold in this class of cases, by means of mixed stock preparations of the so-called respiratory or catarrhal vaccines in the dosage usually advised, were followed either by reactivation or intensification of the asthma in practically all cases. Proceeding on the basis that unusual sensitiveness existed to the proteins concerned (no skin tests were employed) and that immunity might be achieved by beginning with a decidedly smaller initial dose, the same result nevertheless was obtained until the vaccine was diluted in order to obtain a sufficiently small initial dose. Here the use, while asthma was active, of such small initial amount of vaccine in 1 c.c. of saline solution was followed by an altogether unlooked for result, namely, marked improvement in the asthmatic symptoms within 24 hours in a considerable percentage of the cases. Intensification, however, was evoked on using 1.5 c.c. of saline as diluent. No im-

TABLE I.—Comparison of Results Obtained Clinically with Distilled Water Intravenously and Normal Saline Subcutaneously

		†Doses	Number Cases	Decided Relief	No Relief
Localized Infections	Boils	{ 2.5	42	30	3
		{ 3	36*	28	3
	Carbuncles	{ 2	6	3 Seen	2 Seen
		{ 2.5	4*	2 early	1 late
	Peritonsillar abscess	{ 2.5	30	22 Seen	6 Seen
		{ 3.5	28*	21 early	5 late
‡Neuritides	Brachial neuritis	{ 2.2	52	38	4
		{ 2.7	21*	8	12
	Facial neuralgia	{ 2.5	12	6	2
		{ 2.7	3*	1	2
	Sciatica	{ 2.2	26	12	8
		{ 2.7	8*	1	6
	Trifacial neuralgia	{ 1.2	9	6	0
		{ 1.5	3*	0	1
Allergies	‡Bronchial asthma	{ 1.5	138	64	2
		{ 1.8	31*	10	2
	Hay fever	{ 1.5	132	70	5
		{ 1.8	21*	8	7
	‡Angioneurotic edema	{ 2.5	6	6	0
		{ 3	2*	1	0
Infectious Diseases..	‡Urticaria	{ 2.5	21	20	.....
		{ 3	16*	12	.....
	Pertussis	{ 1	49	42	3
		{ 1.5	24*	18	2
	Scarlet fever	{ 1	23	19	2
		{ 1.5	53*	41	5
	Scarlatinal arthritis	{ 1	4	4	0
		{ 1.5	4*	3	0
Miscellaneous	‡Rheumatic fever	{ 2.5	4	3	0
		{ 3	5*	3	0
	‡Chronic rheumatism	{ 2.5	18	11	1
		{ 3	7*	4	1
	Cyclic vomiting	{ 1	6	6	.....
		{ 1.5	1*	1	.....
	Eczema in infant nursing from mother	{ 5	8	7	0
		{ 5	7* Mother injected, not child	5	0
Miscellaneous	Furunculosis in infant nursing from mother	{ 5	2	2	0
		{ 5	7* Mother injected, not child	2	0
	Diarrhea in infant nursing from mother	{ 5	0	0	.....
		{ 5	11* Mother injected, not child	11	.....
	‡Pruritus ani	{ q.s.	5 Focally injected	5	.....
			21*	21	.....

* Indicates saline has been administered.

† The dosage mentioned is the average initial amount stated in cubic centimeters. The quantities mentioned for pertussis, scarlet fever, scarlatinal arthritis, and cyclic vomiting are those that would be given a child age 6; otherwise they are amounts for adults. (For pruritus, amounts according to area involved.) Dosage is adapted so as to be inversely proportional to severity of symptoms.

‡ Recurrences unless focal pathology eradicated.

provement followed on using only a few drops. The same unsatisfactory result was obtained when the amount of vaccine was varied. After numerous trials, a combination was found that was followed by improvement in the asthma almost without exception and which persisted for days and sometimes weeks.* This is 35 millions of killed bacteria (or a $\frac{1}{2}$ minim vaccine) to 1 c. c. of saline solution. Its* use, which is subcutaneous, involves no subjectively appreciable reaction. It was found that in those cases responding but slightly to a series of these injections or of either distilled water or the saline injections previously discussed, alternation of the two classes of injections yielded more gratifying results. Used alone this injection has proved beneficial in the treatment of sinusitis, of hay-

*The quantity of bacteria concerned here has proved a satisfactory initial dose for immunization purposes in the class of cases in question.

fever during the active stage, and of colds in nonasthmatics as well as asthmatics. Marked improvement has been produced in influenza if this injection was employed in double amount but only if used early. In so far as repetition of dosage is concerned here, the same principles were followed as when employing distilled water or saline injection. If improvement failed to follow injection, the quantity of both vaccine and saline was decreased then cautiously increased.

To summarize, the injection of distilled water and saline solution in considered small volumes constitutes a nonspecific device. The quantity of water entering into injections employed in small volumes may and frequently does have an important bearing upon the effects produced.

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MANAGEMENT OF SEROPOSITIVE LATENCY IN SYPHILIS*

JOHN H. STOKES, M.D., PHILADELPHIA

To the majority of us, in this hard pressed, highly specialized medical life, the positive Wassermann blood test and its precipitation equivalents spell syphilis and indicate treatment. Enough of us, however, have questioned the therapeutic necessity in the face of apparent good health in the patient, to make the mode of procedure upon the finding of a positive blood test one for pertinent discussion. Ten years ago such discussion was largely opinion flavored a bit with the logic of the situation. Today the beginnings of objective evidence make it possible to define a little more clearly what should be done about a positive Wassermann reaction if it is discovered in a person otherwise in apparent good health or seeking relief for an obviously nonsyphilitic condition. It should be emphasized that all first positives be repeated. A positive blood test should no more be accepted without confirmation than should a negative. Only if the first positive is confirmed by additional serologic evidence, should the diagnosis of seropositive latent syphilis be made.

Four groups of contributions from the literature are selected to assist in the orientation of the problem of the management of seropositive latency. First of all, is a positive blood test always a potential death warrant? Bruusgaard, between the years 1925 and 1927, collected from

the clinical material of the late Cæsar Boeck, a large group of patients who, thanks to Boeck's presuppositions in the matter, had received no treatment for their syphilitic infections from the time their primary and secondary lesions were recognized. Their disease had, therefore, run its biologic course. The outcome, allowing for elements of statistical criticizability, indicated that untreated syphilis in general is by no means necessarily the rampantly destructive and fatal disease it has been thought to be. Of 473 patients under observation, 164 had died; 22 per cent, from other than syphilitic causes. Of 304 who were critically examined, most of them 20 or more years after infection, only 37 per cent had developed lesions of late syphilis. In 14 per cent no evidence of the disease except a positive blood test remained; 28 per cent had become clinically and serologically negative; 14 per cent had syphilis of the heart and blood vessels; 2.8 and 1.3 per cent approximately, had paresis and tabes, respectively. It is evident that untreated syphilis has a marked self-curative tendency. The second group of observations was inspired by Ravaut, one of the foremost syphilologists of France. Ravaut sent his intern to the soldiers' home at Ivry, in which were gathered many of the aged but still physically sound veterans of the wars of France. He there identified a group of Wassermann positive syphilitic latencies in otherwise healthy old men, who

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at least had not suffered by being left to their physiologic defense. The third group of contributions is from the experimental side—the demonstration of the extraordinary persistence and completely asymptomatic character of the syphilitic infection in many animals. Kolle has carried this interpretative possibility over into human syphilis, and by the concept of the asymptomatic carrier, has supplied a still somewhat undefined but highly plausible explanation for at least a part of the syphilis discovered by test in middle life, of which no clinical sign has appeared, and no history can be obtained from the patient through what must have been years of absolutely unruffled latency.

COÖPERATIVE CLINICAL GROUP RESULTS

The final group of observations is comprised in the recently published papers of the Coöperative Clinical Group* and the United States Public Health Service. With Moore, as spokesman, these studies of latency based on some 2000 cases have confirmed by statistical observation the theoretical generalizations in which a number of us have indulged. From them there stands out as from Bruusgaard's work, the importance of cardiovascular disease, which dogs the latent syphilitic through the earlier decades of his asymptomatic period and the toll that asymptomatic latency in the syphilitic woman exacts from the unborn child. The essentially final value as an evidence of freedom from neurosyphilis which a negative spinal fluid examination has when it is found in an established latency, even though the blood be positive was conclusively shown. The approximate optimum amount of treatment which a seropositive latent case should receive to be protected from late lesions, for purposes of life insurance, so to speak, was clearly defined.

PHYSICAL CHARACTERISTICS OF LATENCY

In order to follow the more detailed statement of the results obtained in this last series of studies, it is necessary to recall the standard definition of latency in syphilis—a positive serologic test, a negative spinal fluid, and an essentially negative physical examination. The more rigorous the search for physical evidence of syphilis, the fewer patients will be admitted to the category of true latency. If an average standard of examination is accepted, it appears that seropositive latency presents a total absence of physical signs in 76 per cent (1936 cases); generalized lymphatic enlargement in 10.7 per

cent; suggestive but not diagnostic physical signs of cardiovascular syphilis in 2.9 per cent; and similar clinically suggestive signs of neurosyphilis in 13 per cent. The moment, however, that the roentgen-ray examination of the cardiovascular stripe is added to the physical examination, a dilated aorta appeared in 56 per cent of the examined cases, showing early physical signs; even among those showing no physical signs, the dilated aorta was recognized in 7.5 per cent. The relative unimportance of the neurologic and the greater progressive significance of the cardiovascular signs again place cardiovascular syphilis to the front in the evaluation of clinical latency.

SIGNIFICANCE OF THE NEGATIVE SPINAL FLUID IN LATENCY

Since no patients with abnormal spinal fluids were considered latent, the Coöperative Clinical Group material on latency was compared with that of Moore and Hopkins with asymptomatic neurosyphilis, and it was found that once a patient had achieved true latency and was found to have a negative spinal fluid, there was a 97.5 per cent probability that he would remain free of neurosyphilis in spite of his positive blood test; whereas, if the spinal fluid was abnormal when examined in apparent clinical latency, the probability of the patient's remaining free from clinical evidence of neurosyphilis fell to 54.5 per cent.

LATENT SYPHILIS AND PREGNANCY

The effect of latent syphilis on the outcome of pregnancy as observed by the Coöperative Clinical Group in 1467 pregnancies among 642 women, fully confirmed the gloomy estimate of Jeans as to the seriousness for the infection of the child, of seropositive latent syphilis in the mother. There is only a 16 per cent chance that an untreated seropositive syphilitic woman will give birth to a healthy child, as compared with a 76 per cent chance in the average non-syphilitic woman.

EXAMINATION OF LATENT SYPHILIS

Thus far, the latest clinical study of the subject shows that the positive serologic test alone does not identify true latency or serve as a practical guide to its treatment. When a positive serologic test is discovered, the first step must be, not treatment, but a critical examination of the patient for signs of the two aspects of the disease which have the highest mortality and the greatest adeptness at concealment under a mask of temporary good health. Cardiovascular syphilis must be eliminated, not alone by the absence

* The Syphilis Clinics of Johns Hopkins, Western Reserve, The Mayo Clinic, The University of Michigan, and The University of Pennsylvania.

of symptoms such as precordial stress or pain, paroxysmal nocturnal dyspnea, and diminishing cardiac reserve; or such signs as the tambour quality and accentuation of the aortic second sound; and by the increased retrosternal dullness, but also by the fluoroscopic examination of the heart and aorta for signs of diffuse dilatation and abnormal pulsation. Asymptomatic neurosyphilis (excluding certain seronegative vascular complications) must be eliminated by examination of the spinal fluid. Not until these things are done and well done is it justifiable to give the patient an opinion on his prognosis or to apply the rule presently to be given as to the amount and kind of treatment which he should receive for his positive blood serologic state.

RESULTS OF TREATMENT IN LATENT SYPHILIS

What can we expect to accomplish by treatment for the patient with a genuinely latent syphilitic infection, proved to be such by the basic examination just insisted upon? It is in general true that seropositive latency should be treated. Comparing the outcome in treated latent syphilis with the hypothetical outcome in untreated latent syphilis, the Coöperative Clinic Group investigation showed that the probability of "cure" or "arrest" in the seropositive latent patient had been increased from 35 per cent in the untreated to 85 per cent in the treated; the percentage of persistently Wassermann positive but otherwise quiescent cases had been reduced from 35 per cent to 7.5 per cent (nearly four-fifths); and the probability of clinical progression or relapse in the latent patient had been reduced from 20 to 30 per cent in the untreated to from 2 to 5 per cent in the treated (or nearly 90 per cent). The earlier in latency the treatment is begun, the better the results (50.8 per cent completely satisfactory results in early, 33.7 per cent in late latency). Better clinical results are obtained in women pregnant during or after treatment, than in women who have never been pregnant. Treatment increased fourfold, from 16 to 65 per cent, the chance of the latent syphilitic mother's giving birth to a healthy baby.

AMOUNT AND KIND OF TREATMENT REQUIRED

In early latency the best results are obtained, as in early syphilis, by continuous combined treatment with the arsphenamines and heavy metal. By continuous treatment is meant treatment without rest intervals. In late latency, the continuity of the treatment is less important. Maximum good results were apparently obtained by about 20 arsphenamine injections combined with large amounts of heavy metal, the latter prolonged over long periods of time.

FIXED POSITIVE BLOOD TEST—SEROLOGIC FASTNESS

Only too frequently the fixed positive is reluctantly recognized after the patient, lacking the necessary preliminary examinations of his cardiovascular, nervous, and special sense mechanisms that should follow the original finding of his positive Wassermann and precede his treatment, has been pushed to the limit of tolerance by repeated series of neoarsphenamine injections totaling into the dozens, the twenties, and even the fifties or hundreds. The physician in perplexity over this therapeutic resistance, and the patient on the verge of syphilophobic collapse over the "impurity" of his blood, or with a broken treatment tolerance, then seeks advice only to find that the persistence of the blood positive is founded on an early but clinically overlooked or misinterpreted cardiovascular lesion, or a paretic formula in the spinal fluid. Though such oversights are becoming rarer, they point the moral that no positive blood test, whether in first instance or after any amount of treatment, can be interpreted without a full syphilologic examination, including a study of the spinal fluid. To ask a consultant what course to follow in a given case without such an examination is to put an unanswerable question, regardless of the amount of treatment which the patient may have received for his positive blood test as such.

PREVENTION OF WASSERMANN FASTNESS

Granted that completely negative clinical examinations prove the case to be one of genuine seropositive asymptomatic latency, and 20 arsphenamine injections and a year of heavy metal therapy have shown the test to be serologically fast or irreversible, what shall the next step be? Shall we suspend treatment, leaving the person to his fate; shall we continue our therapeutic battering; shall we try new devices; shall we prescribe lifelong periodic treatment bouts, year after year? Before deciding, let us inquire preventively into the causes of the irreversible positives that seem so distressingly frequent today, and so discouraging to those of us who thought we had met fully for our patients all the requirements of a complex modern arsenic-heavy metal therapy. The causes of the fixed positive blood test in the patient who began treatment in the primary and secondary stages of the disease, have been studied in the past by that section of the Coöperative Clinical Group investigation for which I acted as spokesman—the treatment of early syphilis. From this investigation, based on approximately 3000 cases, it appears that

fixed positiveness in the latency following treated early syphilis is the result primarily of the use of intermittent or irregular as distinguished from continuous or "no-rest interval" treatment in the early weeks and months of the disease. Even a little treatment, if continuously given, is twice as effective as if lapses or rest intervals are introduced, and four times as effective in securing a lasting negative as if treatment is totally irregular. Shortening or premature stopping of the first course, and specially of the arsphenamine phase, is the second great cause of fixed positives as the early case comes to latency. Much arsphenamine and much heavy metal, crowded into the first 3 months on a continuous schedule, is 4 to 7 times as effective as little arsphenamine and little heavy metal in the same period. Some minor obscure predisposition factor, in the production of the fixed positive treated early syphilis also exists, but cannot be clearly defined. Additional influences favoring the development of fixed positives include also over-strenuous as well as insufficient treatment; and the use of neoarsphenamine instead of arsphenamine in shortened courses. It will, however, comfort the users of neoarsphenamine to know that the combined use of the less effective arsenical and a heavy metal, properly carried through, will largely compensate for the weaknesses of the arsenical. The combination of arsphenamine and bismuth is more effective in preventing Wassermann fastness than is that of arsphenamine and mercury, and this is especially true of continuous treatment. In fact, continuous treatment with an arsenical and bismuth either simultaneously or with alternation or overlap without rest intervals is the sovereign preventive of the therapeutic disappointment of Wassermann-fast latency as the sequel of early syphilis.

TREATMENT OF WASSERMANN FASTNESS

Granted that we find ourselves, after late recognition of the patient's latent infection and his resistance to a minimum of 20 arsphenamine injections and a year of heavy metal, or as a result of ineffective treatment for an early infection, confronted with a genuine Wassermann-fast case, what course shall we pursue? The answer demands a high degree of individualization in judgment. Time does not permit discussion of the elements of age and duration of infection, the technical appraisal of the situation in the light of the biology of the disease, which should always have consideration as in untreated seropositive latency before a schedule is made out. Fifteen methods of attack on the fixed positive serologic state are now recognized, in-

cluding the preventive one which has been discussed. These are summarized in Table 1.

TABLE 1.—*Recognized Methods of Treating Wassermann-fast Patients*

- 1.—*Preventive* (already discussed).
- 2.—*Evaluation* (complete examination) and *expectancy* with periodic (usually annual) reëxamination and quarterly tests.
- 3.—*A rest period*. The test may become spontaneously negative in 3 to 12 months and remain so, especially after bismuth and fever.
- 4.—*Change of drug*. This is probably the most important element in the whole range of possibilities (Burke, Belding, Stokes, *et al.*).
- 5.—*Rest followed by change of drug* (Burke; Tobias).
- 6.—*Bismuth*—regarded as specially effective by Grund, McCafferty and MacGregor, Belding, Sutton, Levine and Schwartz, Tobias, *et al.*, probably as an example of (4).
- 7.—*Bismuth arsphenamine sulphonate* (Kolmer; Stokes, Miller and Beerman).
- 8.—*Mercury intravenously*, preferably as colloidal mercury sulphide.
- 9.—*Sodium iodide intravenously* (Burke, Vercellino, Beinbauer, Schwartz, and Busman). One to 10 grams daily, 10 per cent solution.
- 10.—*Sodium thiosulphate intravenously*, 10 to 20 c. c. of a 20 per cent solution for 12 to 15 injections Ravaut; Flurin, Beinbauer and Jacob, Weringlik (see Tobias, *et al.*). Also with addition of Lugol's solution.
- 11.—*Milk injections* (5 to 10 c. c. milk boiled 5 minutes) or aolan, once or twice weekly intramuscularly (Burke, Greenbaum and Wright, Stokes).
- 12.—*Autohemotherapy*. Physical therapy (ultraviolet light) in addition (special methods of Radjka and Radnai).
- 13.—*Balnotherapy*—sulphur baths, Turkish baths (Burke, Prosser, White, Cady, and Everhardt).
- 14.—*Fever therapy*—with sulphur in oil (Schroeder, Flurin); Ducrey vaccine (Gougerot, Sicard, *et al.*); typhoid-paratyphoid vaccine (Kemp and Stokes); malarial therapy.
- 15.—*Experimental and unevaluated methods*:
 - a—Pluriglandular therapy. Total dosage of various mixtures ranging from 1.2 grams of the more active (thyroid) to 12 grams of the less active preparations (ovary) by mouth or injection (Michaelides and Klissiumis, Photinos).
 - b—Irradiation of the spleen (Gougerot).
 - c—Cerium compounds (Bertillon).

The methods usually most accessible under American conditions of practice, and least likely to do harm, are the rest period after prolonged use of bismuth; a simple change of drug; milk injections alone or in alternation with bismuth; and sodium iodide or sodium thiosulphate.

LIFELONG OBSERVATION IN LATENCY

The seropositive latent patient who is treated to the standards set by the experience of the Coöperative Clinic Group investigation (20 ars-

phenamine injections and prolonged heavy metal therapy) and who has obtained therefrom repeated negative blood serologic tests, is not to be regarded as cured and dismissed from observation. The recognition of a positive Wassermann test, confirmed by repetition and acceptable as evidence of syphilis, carries with it the obligation to hold the patient if possible, to periodic observation and reexamination throughout life. We have seen that this reexamination need not include a spinal fluid test if the one performed as part of the full evaluation of the case at the start was negative. The cardiovascular and neurologic physical signs should be carefully checked year after year, and the more complete roentgenologic study made at such intervals and under such indications as may appear, including sharpening of the aortic second, enlargement of the heart, or the isthmus percussion dullness, symptoms such as dyspnea, *etc.*, already enumerated.

If the physician in his contacts with seropositive latency would spend the energy and patient's money in adequate preliminary and repeated annual check examinations which now go into systematic, needless, and sometimes injurious overtreatment, the outlook for the latent syphilitic patient would be materially bettered.

OVERTREATMENT AND UNDERTREATMENT IN LATENCY

The statement that most latent syphilis is underexamined and overtreated, applies with even greater force to those who prove to have irreversible serologic tests. The trend of present investigation is to show not only that an adequate continuous, no-rest-interval combined arsenic and heavy metal therapy in early syphilis prevents serologic fastness by "curing" the largest portion of infections, but also that the completely asymptomatic though serologically irreversible latent infection, once routine treatment for latency plus a reasonable selection of special methods has been applied, may be placed on observation for

life. The yearly repetition of treatment courses, the chronic poisonings, the syphilophobias, the financial impoverishment, and spiritual demoralization produced by physician and patient in their mad pursuit of two and three instead of four pluses, and of paper negatives and a "pure" blood, are unnecessary if not actually pernicious. Though the disposition to overdo treatment in latency at large should be emphasized (recalling the sharply critical experience of Moore), the seriousness of underestimating the necessity for treatment in the seropositive latent syphilitic woman should be reiterated. If she contemplates pregnancy or is pregnant, recognition of her status by the routine Wassermann test and treatment of the infection by modern methods for the protection of the child seem as established in sound syphilologic procedure as they tend to be neglected in general medical and too often in special obstetric practice. As a final principle, treatment even of the totally asymptomatic latent case should begin and end with a heavy metal and not with an arsphenamine, to avoid the disturbed immunity relations and the therapeutic shock and therapeutic paradox induced in unrecognized but vital structural lesions by the arsphenamines.

To compress the conclusions into a single sesquipedalian sentence: Let no positive test stand sole or uninvestigated, to serve merely as a red flag unloosing a blind *furor therapeuticus* upon a terrified and too coöperative patient: forthwith examine the heart completely and do so repeatedly; the spinal fluid if negative, once; treat early syphilis without rest periods, using arsphenamine and bismuth to prevent serologic fastness; treat true latency itself with 20 arsphenamine injections and a year of heavy metal and stop; protect the child by treating the latent syphilitic mother, *always*; discharge the latent patient, seropositive or seronegative, from the obligation of yearly complete physical examination—*never*.

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INOPERABLE VESICOVAGINAL FISTULA*†

Bilateral Transplantation of the Ureters into the Sigmoid Rectum

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Occasionally a vesicovaginal fistula is encountered which cannot be repaired by plastic

procedures. The fistula in our case followed neglect during labor, the greater part of the anterior wall of the vagina and the base of the bladder having sloughed. The constant escape of urine and encrustation of the vaginal outlet with phosphatic deposits resulted in total invalid-

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

† From Surgical Service B, Pennsylvania Hospital, Philadelphia, Pa.

ism. In certain cases of this type diversion of the urine into the lower bowel in which it can be controlled by the anal sphincter offers more than any attempt at plastic repair. This can be accomplished either by severing the ureters from the bladder and anastomosing them with the sigmoid rectum, or by making an additional fistulous opening between the vagina and the rectum and closing the introitus by a plastic procedure.

The first recorded operation for this purpose was performed in 1851 by Sir John Simon of St. Thomas' Hospital, who established a fistula between the ureter and the rectum by means of a tight ligature passed through their adjacent walls with an ingenious instrument which he devised for the purpose. Later he ligated the lower end of the opposite ureter before introducing the ligature. The operation was not entirely successful for, though some urine passed by the bowel, the ureteric orifices were not completely obliterated. It is interesting to note that Coffey's latest technic (and the one which has been more successful in dogs than any other) is similar in principle to the second operation devised by Simon more than 80 years ago.

The next attempt was made 27 years later by Sir Thomas Smith. He transplanted the right ureter into the posterior surface of the ascending and the left ureter into the posterior surface of the descending colon, and to him belongs the credit for the first operation of this nature. Although it failed, it deserves recognition as the work of a pioneer and a brilliant surgeon. He first operated on the left ureter, but the ureter tore away from the bowel and unknown to him its lumen was obliterated by scar tissues and the kidney atrophied. The patient recovered, however, and, being in good health 14 months later, transplantation was done on the right side, but unfortunately, the ureter was so compressed by the sutures that occlusion of the ureter took place on the third day.

After an interval of 13 years without a single case being recorded, although some may have been attempted, surgeons suddenly awoke to the possibilities of the operation, and between 1891 and 1897 a number of cases were reported in which the operation was done for growths, tuberculosis and fistula of the bladder, and exstrophy. Urinary leakage, stenosis, and renal infection were common complications, and many methods were devised to overcome them. Thus Trendelenburg used a button of vesical mucosa; Borai used a metal button; Tuffier used ureteral catheters, and Rein placed tubes of glass and of nickel in the ends of the ureters, but those pa-

tients who did not die of shock or peritonitis sooner or later developed pyelonephritis.

In this period the transplantation was effected by the direct method with little or no attempt at valve formation until 1896 when Krynsky and later Martin placed the ureters between the walls of the bowel in imitation of their vesical course. Fowler made a valve with a flap of rectal mucous membrane. Though many surgeons reported cases operated upon by one or another of these methods, the immediate mortality was high and most of the survivors died of renal infection within 2 or 3 years.

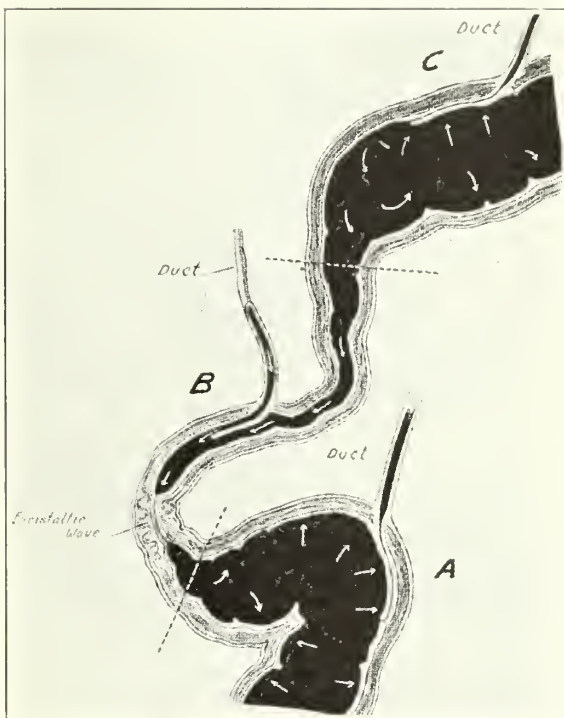


FIG. 1.—Coffey. The modus operandi in the delivery of a secretion into the intestines. Illustration from *Surgery, Gynecology & Obstetrics*, 45: Dec. 1, 1927.

A review of the literature in the Surgeon General's Library prior to 1910 showed approximately 250 articles dealing with experimental attempts to transplant the ureters. In no instance was there scientific evidence to show that success had been obtained. The experiments of Franklin H. Martin were the most important up to that time, but as Coffey has pointed out he failed to distinguish between sphincteric and valvular action. Fowler made a valve but failed to realize its importance. The problem, as conceived by Coffey, is to deliver liquid from the duct of an organ which works under low pressure into a receptacle in which the pressure is higher. The principles underlying successful implantation were formulated in 1909 when Coffey

found that the bile duct always dilated if transplanted into the duodenum without valve protection, whereas such transplanted ducts did not dilate if protected by a valve. The principles and technic used in the transplantation of the bile duct were adapted to the transplantation of the ureter into the large intestine with the result that in 1910, five undamaged kidneys and non-dilated ureters in which transplantation had been done at varying intervals of 60 to 157 days prior

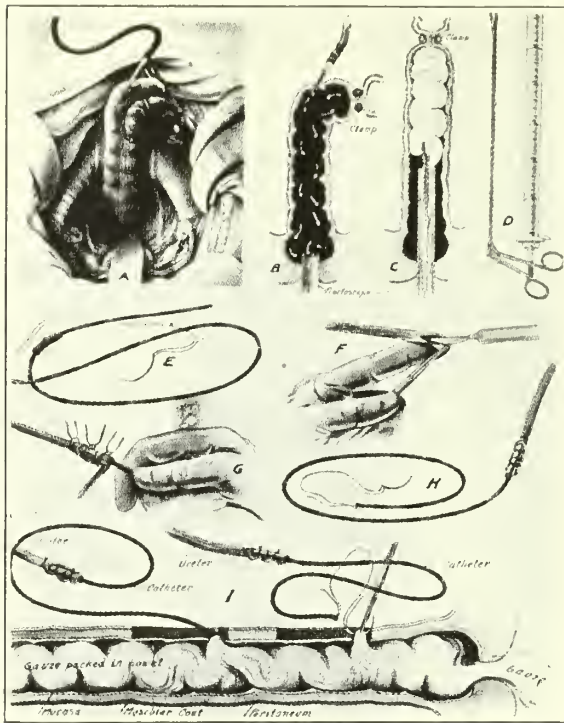


FIG. 2.—Coffey. The technic of transplantation of ureters into the rectum. Illustration from *Surgery, Gynecology & Obstetrics*, 45: Dec. 1, 1927.

to the removal of the specimen, were reported before the American Medical Association by Coffey. Charles Mayo was the first to recognize the importance of this work and the first to adopt the principles and apply them to human patients. Mayo showed by his records that with regularity and relatively low mortality he had been successful in transplanting ureters at separate operations in children with exstrophy of the bladder.

Notwithstanding the many cases treated successfully by the tube method (second technic) of Coffey and Mayo's modification of this method, an ideal technic of uretero-intestinal anastomosis remains to be developed. In the recent proposal of Coffey (third technic) fistulization is delayed until the anastomosis is complete; this may eliminate some of the difficulties heretofore encountered.

Coffey recommended the procedure in the following conditions which may require elimination of the bladder as a reservoir of urine:

1. Incurable carcinoma of the bladder, urethra, or prostate for palliative purposes.
2. Advanced carcinoma of the bladder, urethra, or prostate, in which it is impossible surgically to remove the growth, or in which it is possible by the use of large and even ruthless doses of radium to destroy the growth.
3. Early carcinoma of an essential part of the operative field requiring total cystectomy, which may include prostatectomy in the male, or hysterectomy in the female.
4. Carcinoma involving the urethra.
5. Incurable vesicovaginal fistula.
6. Contracted bladder caused by scars of ulceration or other cases.
7. Extensive incurable multiple perineal urinary fistulae resulting from various causes.
8. Tuberculous ulceration of the bladder in which only one kidney remains good, the other to be removed.
9. Traumatic injuries which make the use of the bladder impractical.
10. Exstrophy of the bladder.

For this purpose the following technic was developed by Coffey:

"Coffey (second) Technic."

"The bowel is thoroughly cleared with castor oil the day before operation. It is flushed out thoroughly from below, two hours before operation. The abdomen is opened low down and near the mid-line. The small intestine is packed back with gauze; the sigmoid is pulled down into the field of operation. The upper end of the movable sigmoid is clamped in a rubber-covered, thin-bladed stomach clamp. A sigmoidoscope with its obturator is inserted into the lower rectum. A pointed cannula of sufficient caliber to admit the passage of a considerable stream of water is attached to the tube of an irrigator. The cannula is inserted through the wall of the sigmoid just below the anastomosing clamp, after which the obturator is removed from the sigmoidoscope. In this way the pelvic colon below the clamp is thoroughly irrigated until clear water escapes through the sigmoidoscope. A germicide, such as acriflavine or mercurochrome, may or may not be used in this irrigating solution. After the irrigation is completed through the sigmoidoscope, an assistant reinserts the obturator into the sigmoidoscope and advances it under the guidance of the hand of the operator until it almost reaches the level

of the anastomosing clamp. Then by means of a long handled thumb forceps, a strip of gauze is packed into the rectum and as the rectum is filled the sigmoidoscope is gradually withdrawn. The gauze absorbs all the remaining fluid in the bowel and also establishes a contour which makes

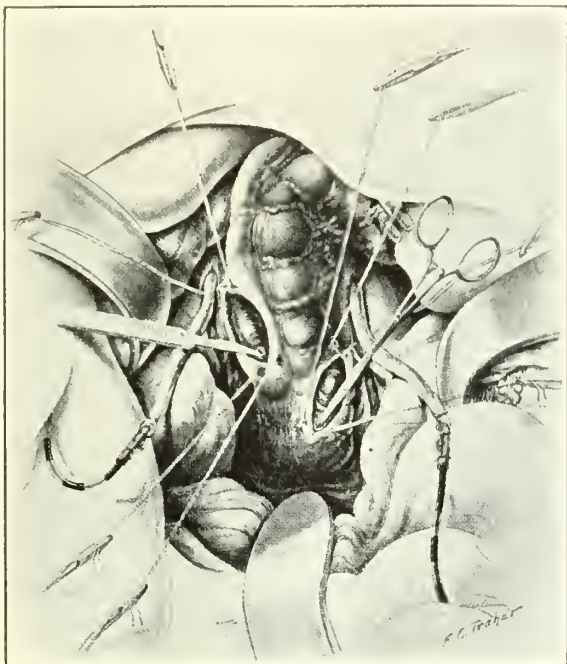


FIG. 3.—Coffey. Catching up gauze in rectum through a stab wound in the mucosa. Illustration from *Surgery, Gynecology & Obstetrics*, 45: Dec. 1, 1927.

the operation much easier and subsequently provides a tractor to pull the catheter out of the anus.

The ureter is now located and severed between artery forceps as near to the bladder as possible. The distal stump is cauterized with carbolic acid and is ligated. The proximal end of the ureter is liberated for 3 or 4 inches by slitting the peritoneum overlying it and the tip of as large a ureteral catheter as possible is introduced into its lumen, preferably a No. 12, although No. 8 will answer. A piece of rubber tubing about $\frac{3}{4}$ inch in length and of sufficient caliber to pass over the catheter is threaded on it at a point about 4 to 6 inches distal to its tip. Several strong linen threads are now tied about this rubber cuff to anchor it on the surface of the catheter and to which and upon its outer surface the ureter is to be attached. A fairly small cutting edge needle armed with strong linen thread is made to take a bite of one wall near the distal end of the catheter (figs. 1 and 2). This is knotted, leaving free a loop 3 or 4 inches long. Gauze is packed into the pelvis around the sigmoid and around the end of the ureter. Because the tube is liable to become

blocked by debris, it is sometimes necessary to remove it before it comes away spontaneously. Therefore, the ureters should be planted as low down in the rectum as possible so that they may be cut loose through a speculum or proctoscope, if the necessity arises. An obstructed catheter rapidly destroys the kidney.

To avoid too much narrowing, one implantation should be made at a higher level in the bowel than the other (fig. 3). The incision should begin near the mesenteric edge and extend downward and obliquely forward toward the antemesenteric border so as to avoid as many large vessels as possible. The incision should be made about an inch and a half in length and should go through the peritoneum and muscles, permitting the mucosa to pout out through the distal one-third. After both incisions are made, any considerable bleeding is controlled.

The anterior wall of the ureter is split with a knife for a distance of about one-half inch, which allows for the insertion of the catheter, which is so introduced that the end of the ureter will cover the rubber cuff on the catheter. A strong linen thread is passed twice around the split ureter and tied tightly with a square or surgeon's knot. A similar suture is tied around the ureter below the rubber cuff so as to prevent infection ascending the ureter from the bowel.

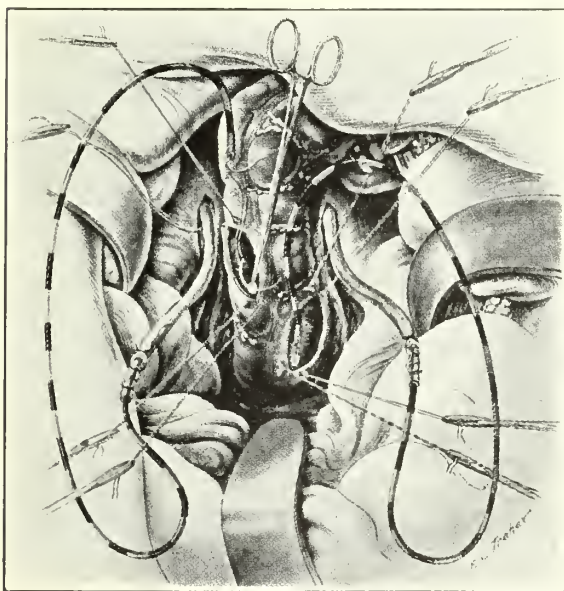


FIG. 4.—Coffey. Attaching the ends of catheters to gauze within the bowel. Illustration from *Surgery, Gynecology & Obstetrics*, 45: Dec. 1, 1927.

Urine usually begins to escape from the catheter at once. A curved needle with No. 0 chromic catgut is used to pick up the intestinal mucosa and the muscle and peritoneum, great care being used, however, not to include the gauze within

the intestine in the suture. This suture is tied, leaving a free end about 4 inches long. Four of these sutures are inserted, two at each end of the incision, and the free ends are used as



FIG. 5.—Coffey. Ureters buried in the wall of the rectum by sutures. Illustration from *Surgery, Gynecology & Obstetrics*, 45: Dec. 1, 1927.

traction sutures and provide perfect control of the mucosa during the subsequent steps of the operation (fig. 2). A small stab wound is made in the mucosa between these traction sutures, at the lower end of the incision. With a mosquito forceps a small portion of the gauze is pulled through the opening in the intestinal mucosa and through this gauze the suture previously placed in the end of the catheter is passed (fig. 1). After the end of the catheter is attached by means of its loop of silk to the gauze, traction is made upon the distal end of the gauze protruding through the anus, and in so doing the tip of the catheter and then the end of the ureter are drawn down through the opening in the mucosa and into the lumen of the bowel (fig. 4). After the ureter is drawn past the upper linen ligature, the free ends of the lower two traction loops are tied across the ureter so as partially to close the opening. These traction loops are very important in handling the intestine. Finally a needle threaded with triple 0 chromic catgut, doubled, is made to pick up one edge of the cut mucosa, pass across the incision, picking up the ureter and then pass through the other side of the cut mucosa (fig. 4). This suture is tied and effectually holds the ureter in place and closes the stab wound around

it. Another suture closes the serosa and muscular coats and also picks up a bite of the ureter as it crosses. This holds the ureter very effectually within the wall of the rectum. It is not necessary to have more than one or two of the sutures penetrate the wall of the ureter. A second row of intestinal sutures may be inserted to reinforce the first row (fig. 5). When the operation is completed the displaced ureters are covered by peritoneum.

COMPLICATIONS

Obstructed Catheters.—Urine passing through a rubber tube soon begins to form deposits inside the tube. This gradually encroaches upon the caliber of the tube until it finally causes total obstruction, and this deposit forms more rapidly should the urine become alkaline or infected. For this reason, Coffey specified that woven wax catheters, No. 13, should be used. They should remain in place for about 15 or 16 days. In some instances the catheters require irrigation with a mild antiseptic solution, such as boric acid, and the administration of acid sodium phosphate tends to diminish the formation of alkaline deposits. When the latter have formed and cannot be removed and complete blockage

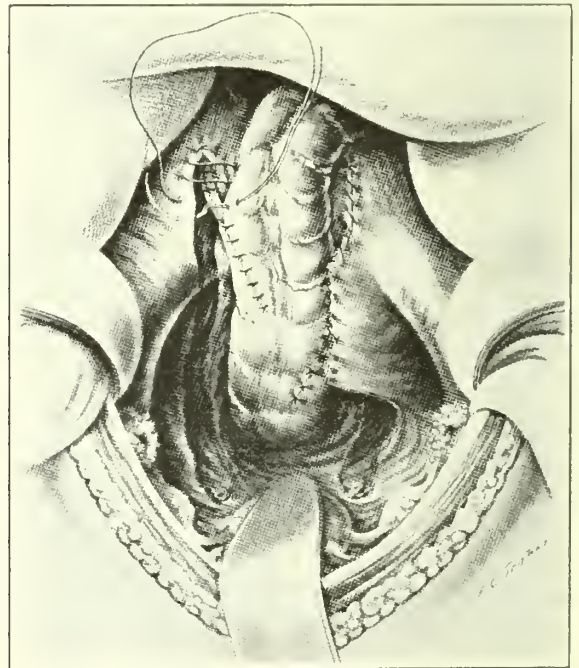


FIG. 6.—Coffey. Ureters being covered by drawing the peritoneum over the suture line. Illustration from *Surgery, Gynecology & Obstetrics*, 45: Dec. 1, 1927.

develops, damage to the kidneys supervenes very rapidly, and if unrelieved, leads to total dysfunction. Coffey, in the transplantation of 66 ureters, reported 8 of the catheters having become com-

pletely blocked. In addition, 3 had to be removed by cutting the ureters as they entered the rectum, and in 5 it was necessary to do extra-peritoneal ureterostomy proximal to their entrance into the rectum. The catheters usually become loose in from 10 to 16 days. Coffey said that contrary to expectations the ureters usually slough off where they penetrate the mucous membrane and not at the point at which the linen ligatures surround the ureter. This he found took place in all cases. No great amount of pull should be placed on the catheter in an effort to remove it.

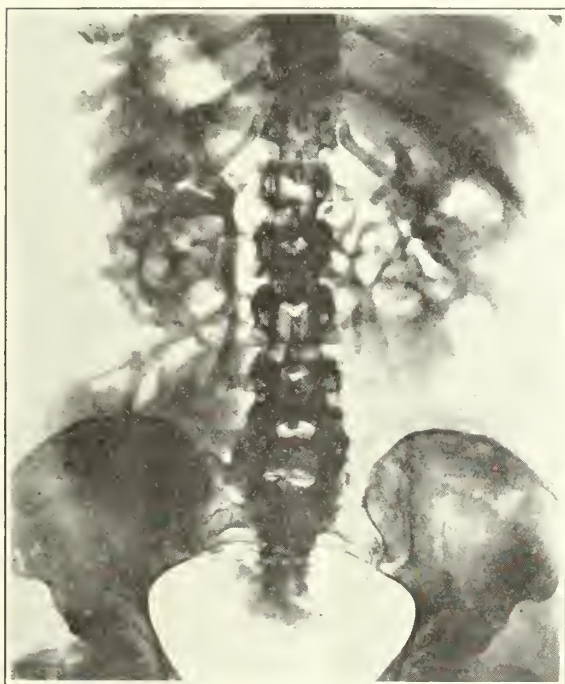


FIG. 7.—Lee and Herman. Bilateral pyelogram of patient, M.T., made one year after transplantation of right ureter and six months after transplantation of left ureter into the rectum.

Infection and Drainage.—By employing the postparietal pelvic peritoneum to close over the suture line in the rectum the latter is so rotated that it comes to lie in a retroperitoneal position. An infection lodged in this area during the progress of an operation may prove fatal by gradual extension upward unless proper drainage is used. To avoid this, Coffey used drainage by rubber dam. In our case we did not employ it, nor can we see the need for it, if there has been no error in the technic.

REPORT OF A CASE

M. T., Negress, age 20, was admitted to the Pennsylvania Hospital, Sept. 23, 1932, with the diagnosis of vesicovaginal fistula.

Incontinence of urine followed the birth of her first child in May, 1931. Labor, which was unattended

and lasted 22 hours, terminated with the spontaneous delivery of a stillborn infant. Urinary incontinence was noted after delivery, the exact time being unknown to the patient who merely states that she has lacked urinary control for more than a year.

Examination disclosed excoriation and phosphatic encrustation of the labia and vaginal mucosa. There was narrowing of the vagina and the cervix could not be felt. The fistula was approximately $1\frac{1}{2}$ inches in diameter and the remaining portions of anterior vaginal wall were rigid and sclerotic. Examined with the aid of a speculum it was noted that the right half of the anterior vaginal wall was missing with prolapse of the vesical mucosa through the defect; the latter was of a size sufficient to permit the introduction of 3 fingers.

These findings were corroborated by a cystoscopic examination which showed further that the bladder injury did not involve the region of the ureteral orifices, both of which were intact. This was confirmed by secretory urographic studies which disclosed structural and functional normality of the upper urinary tract.

The type and extent of the vesical defect precluded plastic repair; the apparent normality of the upper urinary tract offered ideal conditions for successful uretero-intestinal anastomosis. Accordingly, this operation was performed in two stages following the second technic suggested by Coffey which is described in detail in the text.

At the initial operation, performed Oct. 8, 1932, the right ureter was anastomosed to the bowel at the recto-sigmoidal junction, the second technic of Coffey being followed without modification except that drainage was omitted. Convalescence was uneventful until two days after operation when pain in the right loin, high temperature, and abdominal distention suggested the occurrence of pyelitis. This was indicated also by pyuria from the transplanted side and the demonstration of nonhemolytic streptococci and *B. Coli* in this urine. On the eighth postoperative day the catheter came away together with the necrotic portion of the ureter distal to the strangulation ligature. The evidence of upper urinary infection continued more or less persistently for one month. Thereafter the condition improved rapidly. Seven weeks after operation, urograms showed some dilatation of the pelvis on the transplanted side but little or no functional impairment.

The patient returned, March 8, 1933, when the left ureter was transplanted into the sigmoid at a higher level than the site of the anastomosis on the right side. As before, spinal anesthesia was employed and again the technic of Coffey was followed.

Convalescence was less difficult than after the initial operation although renal pain and temperature complicated the first 2 postoperative weeks. Though there was considerable abdominal pain and distention immediately following operation, drainage per catheter was profuse at all times, caused by retention in the rectum of urine from the right kidney which disappeared following drainage by means of a rectal tube. Recovery from this operation was decidedly less stormy than that following the first transplantation and the patient soon recovered. On Oct. 1, 1933, it was found that she had gained 30 pounds in weight and was pursuing a useful occupation. The bowels move 3 times daily and she is rarely disturbed at night. Diversion of the urine has eliminated subjective complaints but the vesicovaginal defect remains; its correction will require cystectomy.

We wish to acknowledge our obligation to Dr. John

Gallagher, Fellow in Surgery at the Pennsylvania Hospital, for constant help in the preparation of this report.

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ABSTRACT OF DISCUSSION

LEON HERMAN (Philadelphia): If the results generally obtainable were as good as those shown by Dr. Lee, all would adopt Coffey's second technic. "his unfortunately, is not the case. Coffey has introduced a third technic comprising a union of the ureter and sigmoid by means of a mattress suture which eventually produces fistulization. This method is said not to be applicable to adults because thickness of the ureteral wall precludes the formation of a fistula before the ureteral obstruction has caused serious damage to the kidney. The method has been used successfully in experimental animals and in children; in the latter, the

method will no doubt displace the second technic in the future. In the treatment of advanced cancer of the bladder, we are frequently concerned with dilated ureters which are difficult to transplant successfully. Higgins has recently proposed a method which promises much in the way of overcoming many difficulties. Instead of opening the bowel and implanting the severed ureter, he applies the third technic of Coffey without destroying the continuity of the urinary tract. This permits the urine to pass into the bladder until such time as nature has formed a fistula between the ureter and sigmoid, the occurrence of which can be proved by intravenous urography; after which he removes the bladder and distal segments of the ureter. This offers much in the future treatment of advanced cancer of the bladder, and to displace the technic of Papin which comprises cystectomy with transplantation of the ureters to the abdominal wall.

It is unfortunate we cannot get uniformly the results reported by Dr. Lee.

JAUNDICE*

Observations of a Recent Epidemic in Roaring Creek Valley

HENRY F. HUNT, M.D.,† DANVILLE, PA., CHARLES L. JOHNSTON, M.D., CATAWISSA, PA.,
AND GEORGE P. MOSER, M.D., RINGTOWN, PA.

In reviewing the literature concerning epidemic jaundice it is evident that these epidemics may be divided into two groups; first, those in which the mortality rate is quite high; second, those in which the mortality rate is very low. In the earlier medical writings, jaundice of the latter group appears to be confused frequently with yellow fever.

Epidemic jaundice was first described by Larrey as early as 1800. Following Larrey many writers described similar epidemics, but it remained for Weil in 1886 to correlate all these data with the result that until 1916 all epidemics of icterus were known as Weil's disease or icterohemorrhagic fever.

Many theories concerning the etiology of these diseases were presented, but for one type of epidemic jaundice the question was definitely settled in 1916 by Inada, Hoki, and Ito, who described the leptospira icteroides hemorrhagica as being the causative organism. They found the leptospira in various organs of patients dying of this disease and were able to transmit the disease to guinea pigs by intraperitoneal injections of blood, urine, and tissue obtained from these patients. Further investigations showed that this same organism was present in the peripheral circulation of persons suffering from

this disease. During the second and third week of the disease this same organism was usually found in the urine.

At present, there is no question whatever concerning the etiologic significance of the leptospira icteroides hemorrhagica in the more severe form of epidemic jaundice. The exact mode of transmission of this leptospira is not known. Leptospira, similar to the leptospira icteroides hemorrhagica, have been found in the kidneys and liver of field mice and it is thought that probably rodents, especially mice and rats, play an important part in the transmission of this disease.

In various parts of Europe and America outbreaks of jaundice occurring sporadically in groups, schools, and families have been reported. For a long time all these epidemics of jaundice were thought to be Weil's disease or icterohemorrhagic fever, but because in certain of these epidemics the patients were not so ill as in others, many suspected that they might be dealing with some other disease.

To substantiate this view, let us briefly review some of the reported epidemics of jaundice that have been recorded.

In 1920, Hiscock and Rogers reported an epidemic of jaundice occurring among the students of Yale University. In the 69 patients studied by these writers they found almost identically the same symptoms and physical signs that we

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

† From the Department of Pathology, Geisinger Memorial Hospital, Danville, Pa.

observed. No spirochetes were found in the urine of these patients.

Douglas Symmers reports a study of an epidemic of jaundice occurring in New York City. In his series of 16 reported cases, 9 patients died which give a mortality rate of 56.2 per cent. Clinically these patients showed almost the same syndrome of symptoms, but much more severe than the cases reported by Hiscock and Rogers. In this series the examination of the blood and urine also failed to reveal the presence of spirochetes. Symmers concluded that there is a variety of severe epidemic jaundice, which is not transmissible to guinea pigs by intraperitoneal inoculation of blood or urine and is probably not of spirochetal origin. He states, but does not prove, that it is probably a manifestation of toxemia of unknown origin.

In 1930, W. N. Pickles reported an epidemic of catarrhal jaundice that occurred in Yorkshire, England. Practically no laboratory work was done. A few samples of urine from different patients were examined for the presence of the spirochete, but none was found. A careful analysis of the epidemic seemed to indicate that the spreading was possibly due to contact. As most of the patients complained of a slight coryza it was suggested that droplet infection played an important part. In this epidemic the clinical signs and symptoms were almost identical with those that were found in the epidemic here reported.

Another rather extensive epidemic was reported from a boy's school in England. The author's conclusion from a study of this epidemic was that the evidence strongly suggested that transmission was usually by droplet infection and that it was favored by indirect contact, especially in sleeping quarters. In this epidemic the bacteriologic examination of 2 specimens of urine and 10 throat swabs showed nothing abnormal.

An analysis of these various outbreaks shows there undoubtedly exists another form of epidemic jaundice in which the *leptospira icteroides* hemorrhagica cannot be proved as the causative organism. This also brings up the point that the use of the term Weil's disease as applied to all cases of epidemic jaundice is wrong and should be discontinued. From a study of Weil's paper it appears that his conclusions were drawn from a mixed series of cases, some being due to the *leptospira icteroides* hemorrhagica, and others being similar to what is now known as acute epidemic catarrhal jaundice.

In a history of Columbia and Montour Counties published in 1887, the following statement occurs: "The year of 1825 was marked by the

prevalence of a bilious fever of unusual virulence throughout the country. In Bloom Township alone there were 71 deaths." This epidemic of bilious fever may have been yellow fever, but in view of the fact several physicians in Columbia County have recalled epidemics of jaundice of more or less magnitude in the past, this first report is mentioned for its historical significance.

In the late winter and spring of 1929, one of us (Johnston) observed in Roaring Creek Valley, Columbia County, an epidemic of jaundice. From February to June, 16 cases were observed. The diagnosis of epidemic jaundice was made but no particular investigations were carried out at this time. Only one or two cases occurred simultaneously, and only twice did more than one occur in the same family. The symptoms were: Chilliness, malaise, nausea, vomiting, slow pulse, jaundice, and in some cases a profound depression.

The symptoms lasted from 10 days to 2 weeks and then cleared up and were followed by no sequelae. There were no deaths and in most instances the symptoms were rather mild. During this epidemic only young adults and adolescents of preschool and high school age were affected, 14 males and 2 females.

In October, 1930, in Catawissa, a series of 4 successive cases occurred in one family. First the mother, age 32, was taken ill. She had a very persistent and obstinate nausea and vomiting, aching in the back and legs, fever from 99 to 101° F., soreness of muscles of body. About a week after the onset she became very jaundiced. Following the illness her 2 sons, ages 6 and 8, were stricken with somewhat similar symptoms, following which they too became jaundiced. The husband, age 32, about a week after the sons, became ill and ran the same clinical course. There was not at that time, nor subsequently, any cases of jaundice as far as was known in Catawissa or vicinity.

Beginning in the early part of December, 1931, there was observed in Roaring Creek Valley another epidemic of jaundice.

The first case occurred in a male, age 53. The onset was sudden. He was shoveling coal when he was seized with a severe frontal headache, so severe it necessitated calling medical aid. When first seen he complained only of headache and vomiting. His temperature was not elevated. He was seen again the next day at which time he had a temperature of 101° F., with generalized grippy symptoms and persistent headache. The headache was so severe and persistent that the possibility of an encephalitis was considered. On the fourth day of the illness,

he became markedly jaundiced with 4 plus bile in the urine. In 2 or 3 days the symptoms began to disappear. Convalescence was uneventful.

The second case was a neighbor of case one, a male, age 60. The symptoms were mild and a physician was not called until the jaundice appeared. This patient's symptoms were limited to only minor digestive disturbances and jaundice.

Shortly before the Christmas holidays the disease made its appearance in the Locust Township High School in Numedia. The characteristic symptoms were headache, chilliness, slight fever, nausea, vomiting, and anorexia. In most instances the patients complained of epigastric fullness and some slight pain in the region of the liver.

Physical examination was essentially negative, early in the disease, and clinically could not be distinguished from la grippe except for liver tenderness and a constant increase in liver size, usually one or two finger breadths below costal margin. There was usually an injection of the mucous membrane of the nasopharynx, but no complaints of sore throat.

Jaundice of more or less varying degree occurred in all patients usually accompanied by considerable pruritus. There was on one or two instances a persistence of the pruritus after the jaundice had cleared. Only one patient had a recurrence of symptoms, apparently due to overeating of fats. Neither constipation nor diarrhea occurred consistently, although in every case the stools were clay colored.

The pulse rate at the onset of the disease was rather rapid, but after the appearance of the jaundice the rate became slower. One unfortunate thing was that many of these patients were not seen until the jaundice was quite marked.

In all, 28 cases of this disease occurred in Roaring Creek Valley. With the exception of the first 2 cases, the patients were all children of school age. In Numedia the grammar and high schools occupy the same building, which we think accounts for the disease occurring in both groups of pupils.

The method of contagion would appear to be by direct contact, probably droplet, and we trace this contact from the first case to his neighbor, and also through his son, a second year high school pupil, to the pupils in the Numedia schools.

The symptoms in all but two cases fitted into a pattern near enough to make us believe that we were dealing with an acute infectious dis-

ease of specific type. In the series so presented we had no deaths, nor sequelae of importance.

In this epidemic our first concern was to determine whether or not the leptospira icteroides hemorrhagica was the causative organism. We examined specimens of blood and urine from patients in all stages of the disease. The examination of the urine and blood by means of dark-field illumination and stained smears did not show the leptospira. Guinea pigs were injected with urine and blood with negative results. The blood was cultured according to the Noguchi and various other aerobic and anaerobic methods with negative findings. From these observations we concluded that we were not dealing with a true leptospiral jaundice. After the first days of illness, bile was always present in the urine and in one case a few hyaline casts were found.

As the patients usually showed some upper respiratory reaction, throat cultures were obtained, which in most instances showed almost a pure culture of a rather long chain hemolytic streptococcus. These organisms, injected intraperitoneally into guinea pigs, or intravenously into rabbits, did not produce a recognizable reaction in the animals.

In all instances the vanden Bergh tests on the blood gave a direct reaction. From these findings it was concluded that there was an intrahepatic obstruction with a resulting absorption of bile into the circulation. This test also eliminated the possibility that the jaundice might be of hemolytic origin.

As all these patients complained of tenderness and a sense of fullness in the right upper quadrant, and as the liver could be palpated below the costal margin, it was concluded that the chief pathologic changes present were intrahepatic. In the material obtained from the duodenal drainages there were found many granular polymorphonuclear leukocytes. From the clinical signs and symptoms, the vanden Bergh test, and the findings obtained by biliary drainage, it was concluded that there was present in the liver an acute inflammatory reaction which probably blocked the smaller intralobular bile canaliculi. This blockage in most instances was rather severe as these patients had clay-colored stools and considerable difficulty in digesting fats.

No evidence was found to suggest that this epidemic was due to the leptospira icteroides hemorrhagica. In this disease it is thought that the pathologic changes are primarily intrahepatic and that there exists an actual intrahepatic absorption of the bile.

LIMITATIONS OF OFFICIAL MEDICINE*

THEODORE B. APPEL, M.D.,† HARRISBURG, PA.

Not so many generations ago there were but three recognized learned professions—Law, Physics, Divinity. Now there are many and they have come into being so rapidly that in a comparatively short time a man or woman so desiring may gain the right to add to his or her name almost as many combinations of the letters of the alphabet, indicating the rights and privileges of membership in these same newer professions, as appear in a directory of our national recovery program. Some of these professions of recent birth are the results of the gradual elevation of trade or manufacture into the realm of science or art; others as a result of specialization are offshoots of one or the other of the older professions. Of the latter type are Public Health and Public Welfare. Naturally in the rapidly increasing complexity of modern society, the fields of the younger professions cannot at once be clearly delimited and there is often overlapping and waste of energy. This is particularly true if a given subject is approached from different angles. In the Public Health field in Pennsylvania, three official agencies are involved: The medical profession, the State Department of Health, and the State Department of Welfare. Medicine approaches the subject from the standpoint of the individual; Public Health, from the relation of that individual to society *en masse*; and Public Welfare, from the economic side in the interest of society as a whole. In addition the great volunteer organizations, State and national in scope, with their forces of active and enthusiastic field workers, must be given consideration. Under such circumstances it is inevitable that there should at times be friction and misunderstanding of responsibility. Frequently the members of the medical profession feel that the officials of Health and Welfare and also the agents of the larger organizations interested in health work are overstepping their bounds and this unfortunately with a certain amount of truth, particularly if the followers of newer professions feel that they do not receive full coöperation and support from the parent profession in their endeavors to accomplish a particular object common to both. On this account it is very important that there should be a definite understanding of the proper delimitation.

I am perhaps old enough and conservative

enough to feel that the present trend is unfortunate, to believe that public health or official medicine should be considered rather as a definite part or speciality of the art and science of medicine than as a distinct entity. The various sociologic and economic problems that must be considered in the public health field seem to warrant a distinct professional entity. If we grant this, the true relation demands close alliance and real coöperation in the service of humanity.

Public health administration has to do with the prevention of disease and the preservation of the health of human society as a whole, whether it be community, state, or nation. Official medicine, as it appears in the program, might well be limited to that part of the public health program having to do with the relation of the individual sick to society as a whole and the State's responsibility in protecting the latter. This should involve the medical care of the individual sick only so far as the presence of disease is a menace to the community. The responsibility for treatment should rest entirely on the medical profession, the State being responsible only in a coöperative sense in the securing of proper medical care to the indigent, and to such regulation of the social economy as to provide proper means in the shape of hospitals, *etc.*, in which the individual may receive the benefits of medical science, and to protect the public from quacks and charlatans.

To come more definitely to the consideration of the limitation of official medicine: It may be that these limitations have nowhere been definitely charted; certainly there seems to be no unanimity of opinion in regard to details. The functions of Health Departments differ widely in various states, and the chaotic condition is emphasized by the multiplicity of departments and bureaus in our State and national governments dealing with public health questions. In Washington these problems are handled by 6 departments and some 23 bureaus. In Pennsylvania these responsibilities are shared by the Departments of Health, Welfare, Labor and Industry, Public Instruction, and Agriculture, and close coöperation and common understanding is necessary to avoid overlapping. In addition as the problems are necessarily approached from different angles involving not only the medical but also the social and economic, the difficulty of securing definite standards is readily seen. There is, however, a general agreement

* Read at the meeting of the Pennsylvania Public Health Association, Philadelphia, May 23, 1934.

† Secretary, State Department of Health.

on the basic function of the use of the truths of preventive medicine to prevent disease and conserve the health of the mass of the people. From my knowledge of the statutes of other states, I am willing to go on record as to my belief that the Pennsylvania plan of administration comes nearer to the realization of the ideal than do the administrations of the other states; though in some cases we do infringe in the treatment of certain classes of patients, such action has been made necessary by circumstances beyond control. This is particularly true in the treatment of tuberculosis and the venereal diseases; our State Clinics and Sanatoria are compelled to take up the medical care of these diseases as a protection to the public and in attempts at rehabilitation.

To recognize the responsibility of the State in the care of the indigent sick, the emergency conditions caused by the depression have emphasized the inadequacy of our present Poor Laws, and new legislation should be considered to provide the necessary machinery to insure adequate care of this class of society with proper consideration of the well established and recognized relation between patient and physician.

In the prevention of disease, Health Departments must depend almost entirely and certainly primarily on the education of the people in the means of prevention and the rules of health. We cannot legislate health or morals, and only as a last resort should the police power given in our health legislation be used, and then only for the purpose of protecting the mass from danger from the individual. Certain communicable diseases by their nature require quarantine laws, but these laws need for their successful application the willing coöperation of the individual and of the physician. As long as the foci of contagion are hidden these quarantine regulations will be futile in the control of epidemics. When, however, severe epidemics occur and the local machinery breaks down, it is the manifest duty of the State to assume control, and so organize the local medical profession and hospitals to end the danger. Such measures are not state medicine.

Very often as a result of the dissemination of knowledge of the means of prevention to the public, the demand arises for more activity than is evidenced by the local medical profession. The knowledge of the preventive measures against smallpox, diphtheria, and typhoid by inoculation is broadcast, and if this is not made available the demand is necessarily made on the state and municipal health departments. The biologic supplies necessary for such protection have for years been furnished by the State, offers of coöperation

have been made to the medical profession, and the orders to the field workers in all campaigns are to refer, as far as possible, all applicants to their own physicians, but to bring about the ideal protection of the mass much greater coöperation is necessary.

In certain diseases by legislative enactment in Pennsylvania, the Department has to a certain extent overstepped the limits of prevention and possibly invaded the realm of treatment. In the crusade against venereal disease we have established numerous State clinics, in which these cases are handled. Primarily the purpose of these clinics is preventive, but to secure the proper control of many of the unfortunate, particularly among the indigent and criminal, certain treatment is necessary. Our binding instructions to the clinic chiefs are to refer those able to pay to an available specialist. In this phase we have received little criticism.

In tuberculosis we also have numerous dispensaries and conduct 3 sanatoria with some 2500 beds. The dispensaries are primarily portals of entrance to the sanatoria, and also have a very important function in the following up of discharged patients. For the indigent sufferer from tuberculosis, a certain amount of advice and treatment is necessary for the control of the disease. The sanatoria are for the treatment and care of indigent active cases, thereby removing foci of infection from the households and communities. Preference is given to the patients with incipient cases for whom there is a reasonable prospect of cure, and active cases in patients who by contact with children are definite social menaces; the old chronic patients with negative sputum are not favored. The public health aspect of the war against tuberculosis is emphasizing more and more the early detection of the disease in childhood or possibly weeding out prospective victims. Here a greater development of the school examination is indicated. In these two conditions the questions of prevention and treatment, involving as they do the removal of social menaces, are very closely interwoven, as is also the object of rehabilitation.

Each year greater emphasis is laid on the care of the child as a preventive measure against disease. This involves both advice and instruction in the proper habits of diet and health training, as well as the early detection of defects. To accomplish this end we encourage and participate in the establishment of well-baby clinics along the same basic principles as govern our school examinations, for we well know that the children under school age are most prone to infection with diphtheria and other communi-

cable diseases, and that many defects can be better corrected in this age bracket. Where these clinics are established the same instructions are given in regard to reference to the family physician, and here official medicine does not overstep its limits.

Attention should here be called to the excellent work now being done throughout the State by Dr. Samuel McC. Hamill's central and local committees, which though to an extent is official in character through the State Emergency Relief Board, is sponsored by The Medical Society of the State of Pennsylvania, and carried out through local committees from the component county societies. In a sense it will supplement the state-wide school examinations which we consider of major importance in the conservation of the health of the children of the State. Under this system, used both by the State and by Dr. Hamill's committee, the proper limits of responsibility are not overstepped in that the burden of advice and treatment is thrown upon the medical profession. The weak point is the difficulty of securing correction of defects among the children of the indigent. If the parents of these children are unable to finance necessary treatment the entire burden of free treatment should not be placed upon the medical and dental professions, and here the responsibility of the State should come in as a welfare problem, that the underprivileged child should have a fair chance to develop into a normal and useful citizen.

In certain emergencies and in the face of epidemics, it is well within the police power of the State and municipality to compel the observance of such measures of control as may be required, involving quarantine, preventive inoculation, or actual treatment as may be necessary under the premises to control and end the prevalence of disease.

In one other function in Pennsylvania the Health Department has definitely gone beyond the limits of prevention—in the maintenance of a hospital for the rehabilitation of crippled children and the subsidization of field work. Recently we have very successfully inaugurated in a limited way the use of water gymnastics in early cases of poliomyelitis to prevent deformity. These activities are for the indigent and serve their purpose in protecting society from the necessity of future support of the handicapped. This may not be official medicine, but it is carrying out one of the functions of the State, and is neither state medicine nor paternalism.

There are many other functions of health departments than those mentioned above, concerning which there is no discussion as to the limitation of authority. No one questions the responsibility of health departments concerning the manifold activities of the Sanitary Engineering Bureau, prevention of disease through food, water, milk, and environment, and it is probable that the greatest progress has been made in the prevention of disease by such supervision because there is no debatable ground.

There is no danger in this country of any real development of state medicine. Each year the question is being better understood and the distinction between the responsibility of the State for the health of the mass and the responsibility of the medical profession for the treatment and health of the individual, is becoming more marked. One question should, however, be answered in the future in a better way than it is at present. We have with us the poor and the derelicts of society. They must be helped for they cannot help themselves, and if not helped both in individual cases and in the environmental conditions in which they live, they inevitably become a mass menace. For self-protection as well as from the humanitarian standpoint, the State has a definite responsibility and though official medicine must be involved to a certain extent, in the final analysis the important factor is the care of the individual and the solution necessitates a definite coöperative plan between the State and organized medicine. This question is bound to become more important as years go by. The work of organization for medical care of the unemployed under Dr. Harold A. Miller and his associates, endorsed and supported by The Medical Society of the State of Pennsylvania, cannot be too highly approved. At best it is an emergency measure and must be followed up by some definite statutory regulation. It is a recognized fact that the more free service is given, the greater is the demand, and the only danger of state medicine with all the evils that might attend it, is the grave tendency of certain sections of society to demand more and more from an increasingly paternalistic form of government. Here official and organized medicine should take a stand together. A mutual understanding of the limitation of responsibility of the several agencies involved in the public health must eventually bring about a solution. It will need cool heads and careful thought finally to settle the question.

STRIA MALLEOLARIS*

Its Clinical Significance

GEORGE W. MACKENZIE, M.D., PHILADELPHIA

Among other purposes, a medical meeting ought to serve that of a short intensive graduate-course for beginners. For this reason papers on elementary subjects are always in order; the more so, since there is a tendency for overambitious novitiates to plunge right off into surgery of the parts without taking the time to prepare themselves sufficiently in the fundamentals.

Most of us can recall what a hit Mr. Edgar E. Burchell made last year at the Pittsburgh meeting of this section with his lantern slide talk on the anatomy of the ear. It is the memory of this purely fundamental talk together with Dr. Babbitt's excellent paper on the otoscopic findings in disease that prompts me to present at this time that most frequently overlooked anatomic landmark, the stria malleolaris. It is not an imaginary line like the equator of the earth but a real line that can be definitely made out anatomically, observed otoscopically, and which means so much clinically. A knowledge of the stria malleolaris and the region about it is most important to the fullest understanding of the otoscopic picture in health and disease.

My first reference to the stria malleolaris was in a paper read before the American Laryngologic, Rhinologic, and Otologic Society at its meeting in St. Louis, in 1924. Since then I recall no one else having referred to the stria malleolaris and yet, it is inconceivable how one can practice otology and ignore it. I recall no work on otology in which reference is made to it. Though otologists have apparently ignored the stria, anatomists have not. Toldt, Spalteholz, and Schwalbe recognize the stria in their *Anatomical Atlases*.

In the preparation of this paper 27 textbooks were examined, 5 on anatomy and 22 on otology. In none of the works on otology was any reference found to the stria malleolaris and in most of them the description of the drum head fell appreciably short of what it should be.

Gustav Alexander was the first to make the observation of the narrow appearing hammer handle in exudative (secretory) catarrh but did not go so far as to give the reason for it.

Gustav Brunner deserves the credit for having first brought our attention to the stria malleolaris and the anatomic structures about it, 63 years ago. He went into detail not only about the

stria but also the posterior and anterior discontinuat. In the paper read at St. Louis, credit was given to Brunner for his reference to the posterior discontinuat but denied the existence of an anterior (figs. 1 and 2).

To understand better the clinical aspect of the stria, it is essential that we direct our attention first to the anatomy and later tell about its clinical significance.

The drum head (membrana tympani) separates the external auditory canal from the tympanic cavity. It is divided into a tougher, pars tensa, and a less resistant, pars flaccida. The former occupies about six-sevenths of the entire area leaving the remaining one-seventh for the latter. The major part is fixed firmly in the U-shaped sulcus tympanicus of the tympanic bone. The gap in the sulcus is known as the incisura tympanica of Rivini. The anterior-superior extremity of the sulcus is known as the spina tympanica anterior of Henle and the posteroterosuperior extremity, the spina tympanica

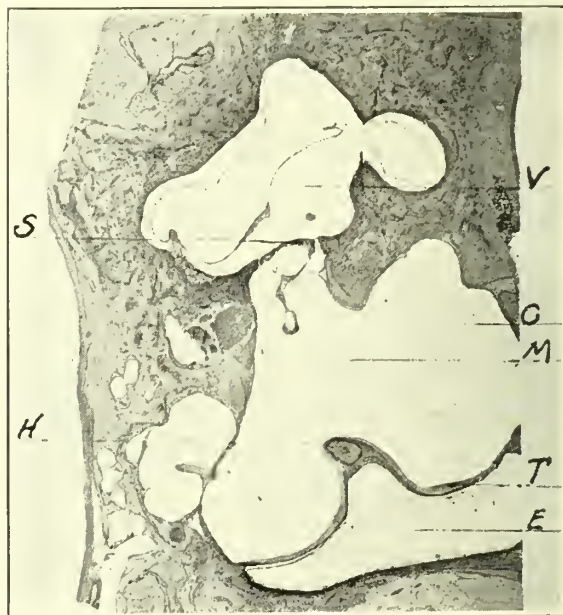


Fig. 1.—Photomicrograph of horizontal section of an adult temporal bone from the author's collection. The section passes transversely through the shaft of the hammer handle. The anterior direction is to the right; the external direction is downward. E indicates the external auditory canal; T, the tympanic membrane, which is somewhat atrophic and relaxed. It is concaved slightly more than normal; H indicates the hammer handle which is in intimate contact with the drum head from its anterior margin to the stria malleolaris, the details of which are better shown in the next illustration, a still higher magnification; M, the drum cavity; C represents a sort of bubble produced by shrinkage of the embedding material (in this case celloidin); S, the foot plate of the stirrup in the oval window; V, the vestibule.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

posterior. The posterior spine is situated at a slightly higher level than the anterior.

The sulcus tympanicus is not only U-shaped when viewed lengthwise along with the canal but also when viewed crosswise. The sulcus is an actual groove, the external lip of which reaches somewhat higher than the internal, which prevents the groove from being recognized if viewed from the canal side. It is plainly seen if viewed from the tympanic cavity side. A photomicrographic illustration of this region also shows an expansion of the connective tissue stroma of the pars tensa spreading out to be inserted into the sulcus.

The pars tensa is thicker and stronger than the pars flaccida (Schrapnelli) because of the presence of a middle layer, substantia propria

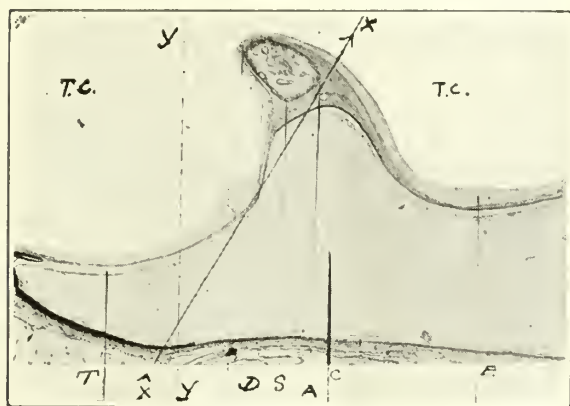


Fig. 2.—Enlarged photomicrograph of Fig. 1, which takes in but a part of the former. C represents the external auditory canal; T, the drum head; E, organized exudate on the tympanic cavity side of the drum head. This exudate is even thicker than the drum head proper; A indicates the anterior margin of the hammer handle; S, the stria malleolaris; D, the posterior discontinuat; P, the posterior margin of the hammer handle; T. C., the tympanic cavity. Note that the drum head is thicker about the area of the hammer handle; note also the size of the transversely cut vessels about the hammer handle. This area corresponds to nothing else than Troeltsch's stripe referred to in the text. The solid line X-X indicates the correct line of vision during otoscopy while the dashed line Y-Y does not, as a beginner might be led to suppose. Considering this detail it is plain to be seen that the posterior part of the drum head is projected just in front of the anterior margin of the hammer handle A.

made up of radiating and circular coursing connective tissue fibers.

The stroma of the pars tensa carries also blood and lymph vessels, nerves and a few elastic fibers.

The pars flaccida contains no stroma. All stromal fibers are discontinued in the upper part above the spinæ tympani, which makes for less resiliency in this part, hence its designation.

The outer surface of the drum head is covered with a layer of pavement epithelium together with the malpighian layer such as covers the osseous external auditory canal. The inner surface of the drum head is covered with moist (mucous) epithelium such as lines the tympanic cavity.

There is an extra stripe or band of skin coming down from the upper wall of the canal onto the drum head, forming an integral part of the latter, known as the bande cutanee of Tilloux, Troeltsch's stripe, or the Cutes strange's of the Germans. This stripe carries arteries, veins,

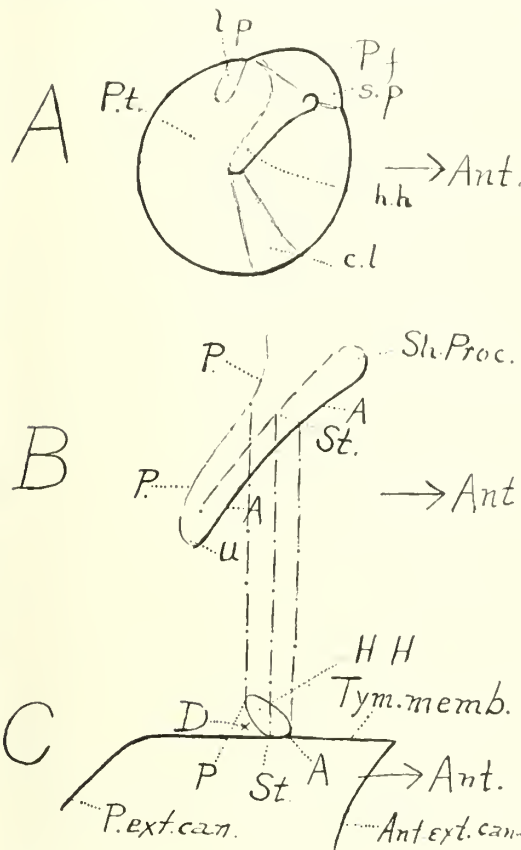


Fig. 3.—Three sketches, A, B, and C. A represents schematically the otoscopic picture of the right ear. Ant. indicates anterior direction; P.t., pars tensa; P.f., pars flaccida; l.p., long process of anvil; s.p., short process of the hammer; h.h., hammer handle; c.l., cone of light. Note that the anterior border of the hammer handle is indicated by a heavy solid line, whereas the posterior border is indicated by a faint broken line which is quite characteristic of the normal otoscopic appearance.

B. Enlargement of the hammer handle in order to show better the following details: A, anterior margin of the hammer handle; P, posterior margin of the hammer handle indicated by a fainter line than the anterior for the reason that it is not in contact with the drum head and therefore just as an object is seen through a translucent membrane the farther away it is from the surface the less distinct its outline. The dashed line St., (stria malleolaris) divides the hammer handle longitudinally into an anterior part and a posterior. The anterior part is slightly narrower than the posterior and lies directly on the drum head, whereas the posterior to the stria is free of such contact. This free space is known as the posterior discontinuat of Brunner; Sh. proc. represents the short process of the hammer; U, the spatulated end of the hammer handle. Note that the dashed line, St., indicating the stria does not reach to the spatulated end. This is precisely as it should be.

C. Represents a horizontal section of the hammer handle anywhere between the short process and the spatulated end. A indicates the anterior margin of the hammer handle which is projected from the longitudinal section above; likewise, the stria malleolaris is projected downward from Fig. B, to Fig. C, and, too, the posterior margin P in Fig. B to P in Fig. C; D indicates a somewhat triangular space within the tympanic cavity between the drum head (Tym. memb.) and the posterior part of the hammer handle (H.H.) and is known as the posterior discontinuat of Brunner; P ext. can., represents the posterior wall of the external auditory canal; Ant. ext. can., the anterior wall of the external canal; Ant. indicates as in the two preceding figures the anterior direction.

lymph vessels, and nerve fibers. This band or stripe should be borne in mind in order not to mistake a congestion of it caused by an irritation of the skin of the external auditory canal, incident to prolonged otoscopic examination, removal of cerumen or other trifling manipulations, for a bona fide hyperemia of the drum head, as is too often done by the tyro.

Much detail in the description of the drum head must be sacrificed in order to discuss the

anatomy of that particular part which is more germane to the subject of this paper.

The hammer handle from the short process to the manubrium is in more or less intimate relation to the pars tensa. Because of the breadth of the hammer handle at its lowest extremity, it is given the name of the spatulated end.

A verbal description of the stria malleolaris is impossible. It requires the use of illustrations more than anything else (figs. 3, 4, and 5). The legends below each are explanatory.

Under normal conditions the hammer handle and the membrane move so nearly together during manipulation with the Siegle otoscope as to deceive most beginners into believing that they both move to the same degree and in unison; this is not so, for by close inspection it will be found that with aspiration the drum head just

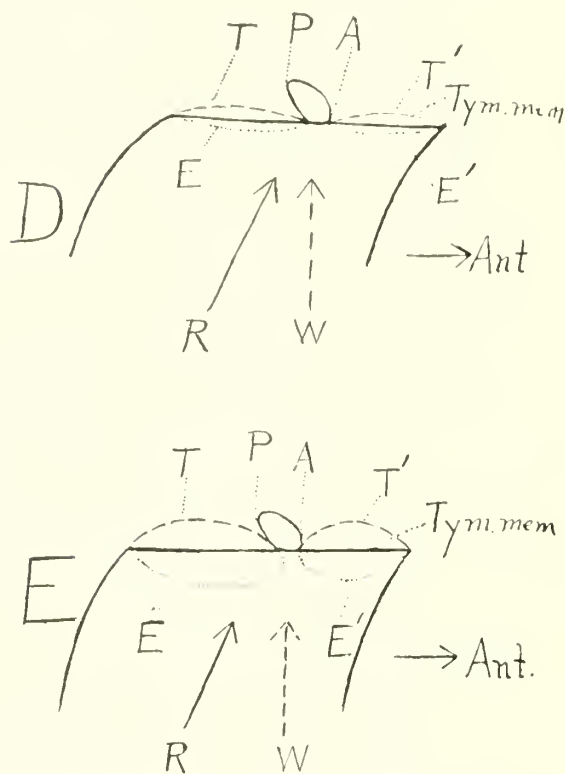


Fig. 4.—D represents a horizontal section through the shaft of the hammer handle and a part of the external auditory canal; A, representing the anterior margin of the hammer handle; P, the posterior margin; the solid line tym. mem. represents schematically the drum head in its primary position; the dotted line E represents the drum head posterior to the hammer handle during the aspiration of air in the external canal; E' represents the anterior half under the same condition; the dashed line T represents the inward excursion of the drum head during compression of air in the external canal with the Siegle apparatus; T' represents the anterior half under the same influence; the dashed arrow W is the incorrect interpretation of one's otoscopic view of the drum head; the solid arrow R represents the right view of the drum head as seen through the otoscope; —> Ant. as before represents the anterior direction.

The outward excursions under the influence of the aspiration of the air and the inward excursion under the influence of compression represent the mobility slightly more than is allowable for the normal drum head obtainable with the Siegle apparatus.

On examining the drum head with the otoscope one can observe the appearance of the membrane lifting away from the hammer handle during the aspiration and the replacement of it under the influence of compression.

E. Represents a case of exceedingly flaccid (pathologic) drum head in which the bulging is represented by a dotted line E and E'; the dashed line BT and T' represent the inward bulging of the drum head under the influence of air compression in the external canal; the dashed arrow W and the solid arrow R indicate the same as in Fig. D; the excursions of the drum head in Fig. E which is much more marked than in the Fig. D would indicate a more flaccid condition of the drum head than in the case of Fig. D.

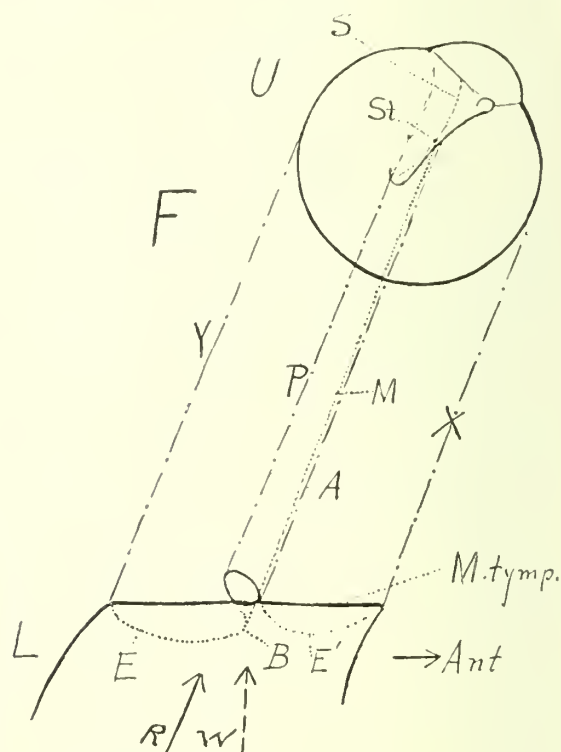


Fig. 5.—Represents in the lower part L schematically a cross section of the hammer handle between the short process and the spatulated end together with the membrana tympani (M. tym.) and a part of the external auditory canal resembling very much Fig. E. The upper part represents the projected otoscopic picture. The alternate dashed and dotted line Y is the projection line for the posterior margin of the tympanic membrane. The alternate dashed and dotted line X represents the anterior margin of the tympanic membrane. The alternate dashed and dotted line A is the projection line for the anterior margin of the hammer handle; the alternate dashed and dotted line P is the projection line for the posterior margin of the hammer handle. The dotted line M is the projection line for the anterior extremity of the bulging posterior part of the pathologically relaxed drum head. In cross section it is indicated by B, in the otoscopic picture by St.

The dashed arrow W is a false representation of the line of vision and projection. The solid arrow is the correct line of vision and projection; hence the otoscopic picture U above is projected to the right of the vertical. Viewed in this, the right direction, the anterior limit of the posterior bulging at B is projected farther forward than it would be if our line of vision were in the direction of the dashed arrow.

behind the stria moves slightly more outward than the hammer handle, giving one the impression that the membrane is being lifted slightly from the more fixed hammer handle.

In the case of a pathologically relaxed drum head, as found after overtreatment of the ear

chronic adhesive process following middle ear catarrh or suppuration and to a lesser degree in otosclerosis. The third and perhaps the most frequent cause is the combination of overly relaxed drum head and diminished mobility of the ossicular chain. The relaxation is due usually to too much manipulation. The differentiation of the several causes for overlapping would require more time than is allowed.

The stria malleolaris is of diagnostic aid too in the case of an exudate in the tympanic cavity which may be in the form of a thin liquid, a viscid liquid, or organized exudate. The liquid state represents an acute or active exudative (secretory) catarrh, the viscid or more congealed exudate, a subacute process, and the organized exudate the chronic catarrh. In all three conditions the exudate is opaque and if it is found plastered up against the inner surface of the tympanic membrane there is obscuration of the posterior part of the hammer handle, making it appear narrowed to at least half its normal width. The posterior discernible limit is the stria malleolaris. The apparent narrowing of the hammer handle was observed first by Prof. G. Alexander, of Vienna, 28 years ago; he offered no explanation for it.

In recording the otoscopic findings, in which the anatomic details are at all discernible, refer

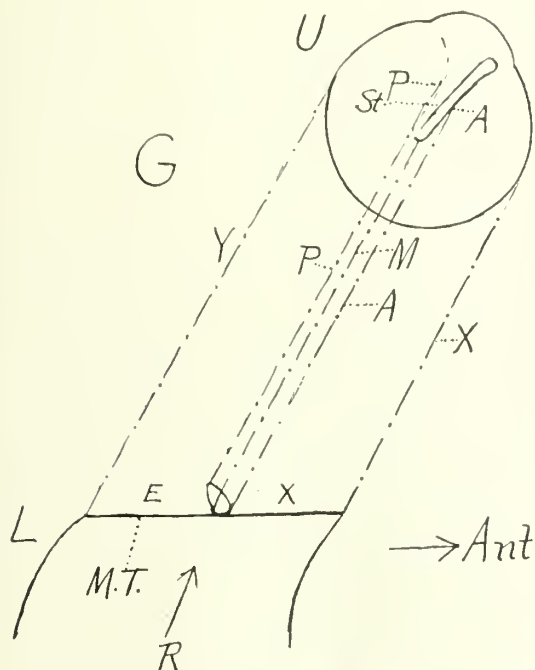


Fig. 6.—G-L, represents the cross section of the membrana tympani M.T.; the shaded area E-X indicates an exudate in the tympanic cavity; U represents the otoscopic picture of the same case projected upward and forward in the direction of the arrow R; Y is the projection line for the posterior boundary of the tympanic membrane; X, the projection line for the anterior boundary of the same; A, the projection line for the anterior limit of the hammer handle; P, the projection line for the posterior limit of the same; M, the stria malleolaris; the arrow Ant. indicates the anterior direction.

Note that the exudate is sufficiently opaque to obscure all that portion of the hammer handle posterior to the stria, hence the hammer handle appears narrowed in the otoscopic picture. That is to say, the only visible part of the hammer handle is between A and St. while that part between St. and P which is ordinarily visible in the normal ear is completely effaced by the opaque exudate.

with Politzer inflation or pneumomassage, the drum head will move over a much larger excursion than the hammer handle. In this case, the membrane overlaps considerably the stria malleolaris. In fact patients are occasionally seen in whom the membrane is so relaxed that it actually overlaps the anterior margin of the hammer handle.

Any case in which the drum head overlaps the stria is a pathologic one since no individual with normal hearing manifests this sign.

So far reference has been made to the drum head overlapping the stria as caused by a pathologically relaxed drum head. This is not the only cause for this finding. It may be due in some cases to pathologically diminished mobility of the ossicular chain as found in cases of



Fig. 7.—Photomicrograph of a vertical section through the ear of a 50 cm. newborn babe, from author's collection. There is some embryonal connective tissue intact in the attic region. A, the connective tissue, is in the process of resorption indicated by the letter K; H, hammer head; P, short process of the hammer; D, the posterior discontinuity of Brunner behind the stria malleolaris; C, external auditory canal; Q, lower part of the membrana tympani. Note that it is considerably thinner than the superior which lies externalward of the posterior discontinuity; ST, scala tympani; S, sulcus tympanicus; M, scala media; O, oval window with the foot of the stapes in place; F, macula acustica of the utricle; U, utricle; R, crista ampullaris of the superior semicircular canal; N, facial nerve in the fallopian canal; B, tegmen tympani.

to the stria malleolaris and the behavior of the drum head adjacent to it particularly in view of the fact that the behavior of the drum head under the influence of aspiration and compression of air in the external auditory canal and also under the influence of inflation affords more information than the mere appearance of the drum head alone.

This important diagnostic aid should not be neglected in any case with an intact drum head.

269 South 19th Street.

ABSTRACT OF DISCUSSION

JAMES A. BABBITT (Philadelphia): One cannot quite agree with Dr. Mackenzie's initial premise. This is far from the thesis for beginners; it calls for the precisional examination and diagnostic ability of an experienced otologist.

Differential diagnosis in ankylosis of the ossicular chain, relaxed tympanic membrane, and the various stages of the so-called exudative catarrh are of importance. The mistakes of overmanipulation have been far too evident. How actually practical the anatomic relations of the stria malleolaris are to be in the determination of these conditions must await later composite judgment. Though customary methods of analysis do not appear entirely adequate for such diagnosis, present studies of progressive deafness, otosclerosis, tinnitus, and vertigo, are not advancing rapidly. Any further information upon their etiology and development will be a genuine contribution.

The stria malleolaris, defined by Paul de Ferra in the *Vademecum Anatomicum* of 1913 as "the white line between the prominentia malleolaris and the umbo," had been recognized by the Basle *Nomina Anatomica* in 1895. Though this has not been noted by many writers, it has received some attention by later writers, Toldt, Sabotia, and Spatzholz since that time. Battson, in the University of Pennsylvania Graduate Anatomic Department, informs me that he has occasionally found an anterior as well as a posterior discontinuity, so that it would perhaps be well not to limit the observations entirely to the posterior half of the tympanic membrane. Dean Lierle, at the recent meeting of the American Academy of Ophthalmology and Otolaryngology, presented in his conference some preparations of the infantile tympanic cavity. In these it was possible to observe very clearly the relations in the middle ear, ligamentous and muscular attachments, and angles of position. In a prolonged study of these we were

unable to note this free space posterior to the stria. This could readily be accounted for by the fact that these were morbid specimens and not under the influence of politizerization or massage.

In 1924, Dr. Mackenzie presented a paper on the appearance and behavior of the normal tympanic membrane. In this paper emphasis was placed on the diagnostic observance of the furrow between the drum membrane antero-inferiorly and the canal wall postero-superiorly at the margin of the annulus tympanicus, which is pathognomonic of early mastoid involvement. In the present sequence to that paper the writer discusses the importance pertaining to the line of attachment of the membrane to the malleolar handle, the lifting of the membrane from the posterior free edge under changes of air pressure and the diagnostic value of the narrowed appearance of the malleus in the otoscopic picture.

It has always proved difficult to recognize this groove and, probably because there has not been sufficient time nor an adequate supply of suitable cases since receiving this paper to form an opinion, almost equally difficult to recognize this narrowed picture. To those interested in the finer study of the tympanic membrane, which concerns such important aspects of chronic physiologic and pathologic change, this added method of interpretation, if it proves adequate, will be of inestimable value.

This discussion bears at least a remote relation to two other interesting aspects, one, the sequence which may occur in freely manipulating the malleolar process in the operation for modified attic drainage or any other operative procedure in the middle ear; and, second, in its possible diagnostic aid toward locating the course of tympanic hemorrhage following a certain percentage of radical operations for the relief of trigeminal neuralgia. In the cases studied with Dr. Gardner in the Frazier service at the University Hospital, it proved difficult to distinguish hemorrhage in the membrane from more general intratympanic collection. A minute analysis of this tympanic attachment with the aid of the Siegel otoscope would have been helpful.

WILLIAM F. WHALEN (Philadelphia): In a case of acute catarrh in which the middle ear cavity is filled with exudate, usually mucoserous, one often finds in the otoscopic picture that the hammer handle is narrowed, but this really is because fluid collects between the posterior surface of the drum and the middle ear cavity proper, and in that respect is an aid to diagnosis. In chronic catarrhal otitis media, in which the drum head is somewhat retracted and narrowed, the exudate in the acute condition has plastered itself all over the inside of the middle ear cavity and drum, obstructing the view.

THE PUBLIC HEALTH LABORATORY

Its Uses and Abuses

JOHN L. LAIRD, M.D.,* PHILADELPHIA

The State Laboratory was established for the primary purpose of scientifically aiding the Department of Health in the adoption and promulgation of policies for the protection and conservation of the public health. It is impossible or

impracticable for any governmental organization to apply policies of direct control in any of its activities. The general public, and more especially, that portion immediately interested in any specific activity, must be enlisted in an efficient army for proper control in any field. The peo-

* Director of the State Public Health Laboratory.

ple of the State should be enlisted as divisions of the Department of Health. The laboratory, therefore, must extend the same scientific aid to the physicians and their patients which they extend to the department itself. The aid which the laboratory can afford to the physicians and citizens of the State, in the diagnosis, treatment, and prevention of disease, is as important in public health protection as the immediate scientific direction of the Department.

The actual performance of the duties of a state laboratory involves complications worthy of serious consideration. Some of the most valuable and essential uses of the laboratory may be literally translated into abuses. The laws and ordinances of the State render scientific control of contagious diseases compulsory regardless of condition or status of the patient. Every disease has its public health aspect. Where and how to draw the line in every aspect of the work is a subject of continual study and vigilance. In some measure we must depend upon the honesty of the physician to send specimens from only those patients who cannot afford to pay the private laboratory. Continual vigilance must also be applied, however, to check up on abuses, and frequent warnings and instructions given as to the types of specimens appropriate to the laboratory's uses. This refers almost entirely to the financial status of the patient.

Outside of what might be designated "bedside clinical pathologic procedures" and those of a simple nature, *i. e.*, urinalysis, which every physician should be able to and should perform, all clinical pathologic procedures have a place in public health activities; some, more than others. The bacteriologic or serologic control of contagious diseases is compulsory, in diagnosis, course, quarantine control, immunization if possible and, often, in treatment, either actually, in the biomedical field or directive. This includes: Diphtheria, scarlet fever, measles, chickenpox, smallpox, pneumonia, syphilis and gonorrhea, typhoid, typhus and abortus fevers, sore throat, mumps, anthrax, tetanus, malaria, tuberculosis, cholera, dysentery, *etc.* Individual health is a unit of public health and, hence, pathologic section and diagnosis, and blood chemistry are of some importance especially in the study of diseases which are rapidly assuming proportions which indicate distinct public health problems, such as cancer, goiter, and diabetes. Research into the cause and the development of means of control are duties distinctly appropriate to the Public Health Laboratory. No other scientific organization is in so advantageous a position to carry on this study, and appropriation and organization should always include this activity.

In fact, research in the fields which are precluded from the activities of private laboratories through lack of facilities is a very distinct and most important duty of the Public Health Laboratory. The development of new and more accurate laboratory methods of diagnosis and control and the check up on new methods developed and advocated by other workers for their adoption as dependable methods are definitely established policies in State Laboratory activities. Appropriations to these Bureaus should cover such essential undertakings in the development of the scientific care of the public health.

It can be readily seen from the above exposition of the wide range of duties of the State Laboratory that its abuse lies almost entirely in the financial field: In the submission of specimens for diagnosis from patients financially capable of paying a laboratory fee. That such abuse exists to a certain extent it would be foolish to deny in consideration of the conditions under which a State Laboratory must function. That such abuse under the present financial stress seems to have increased is likewise true. Persons cannot afford to pay the fees which they previously paid for laboratory work. The physicians in order to care properly for these patients must ask charity for them in this line just as it must be asked in many others. Much of what seems abuse under present conditions is necessary charity. This is stated with the full knowledge that the depression has brought about a most obvious loss of the sense of financial obligation on the part of the general public. There are, without doubt, a number of persons today who could pay for what is done for them who neglect their obligations in this respect no matter with whom they have dealt. Such persons would abuse any privilege, private or public. Fortunately, they are not as numerous as one who is personally affected by them might be led to believe.

It has been the experience of the Pennsylvania State Laboratories, on numerous investigations, that such cases are the exception and not the rule.

The statistic tables tend to confirm the foregoing statements. The distribution of laboratory demand as noted in the tests listed by counties (Table No. 1) shows a normal allotment proportionate to the population and existent laboratory facilities. The percentage of tests to population is lower in the cities than in the rural districts in which laboratory facilities are not available. The tests designated in the headings are of distinctly public health character with the exception of those for albumin and sugar in the

urine and part of the last column under "All other tests." The urinalysis examinations were performed largely for clinics in preparation for salvarsan injections. "All other tests" include pathologic section and blood chemistry which may not be considered necessary public health procedures, but their small percentage of the total number of tests practically eliminates their consideration as abuses.

In Table No. 2 interest rests particularly in the figures in the column under "Source." In addition to the procedures being in many instances compulsory, the laboratory demand under "Physicians" is only slightly greater than that under "Institutions" and "Department of Health." Many of these physicians, moreover, are members of the Department, as county medical directors and health officers, and are using

TABLE 1.—Total Tests Performed in the Division of Laboratories by Counties: 1933

COUNTY	Blood							Urine					Water for Colon	All Other Tests
	Total Tests	Wassermann Reaction	Widal Typhoid	Abortus	Smears for Gonorrhea	Sputum for Tuberculosis	Culture for Diphtheria	Albumin	Sugar	Typhoid	Feces for Typhoid			
STATE TOTAL	130,291	63,454	1165	460	15,018	9615	2331	6447	5745	53	3	10341	15659	
Adams	573	105	22	4	27	28	3	26	26			301		
Allegheny	7082	3471	19	2	608	430	43	624	629			622	634	
Armstrong	1530	602	33	4	139	164	3	53	55			206	271	
Beaver	2159	1344	23	19	72	257	4	2	3			148	287	
Bedford	684	311	44	19	24	41	7	36	36			129	37	
Berks	3410	1278	10	7	571	216	28	18	19			240	1023	
Blair	1454	889	7	2	77	90	88	16	16			121	148	
Bradford	183	53	7	4	18	19	2	1	1			54	24	
Bucks	1638	604	18	2	79	95	77	104	108	1		295	255	
Butler	1270	667	30	18	64	91	5	11	12			174	198	
Cambria	3815	1641	37	14	241	326	27	347	345			385	452	
Cameron	167	36	1	1	17	22		11	11			30	38	
Carbon	726	218	4	4	323	56	3	7	7			33	71	
Center	2229	1572	55	10	39	91	5	31	31			125	270	
Chester	3962	2120	29	20	180	89	187	116	120	12		214	875	
Clarion	471	164	16	3	33	80	1	5	5			93	71	
Clearfield	1319	759	16	1	55	142	8	2	2			138	196	
Clinton	1042	458	12		74	92	1	120	120			72	93	
Columbia	948	592	44	5	46	43		4	4			43	167	
Crawford	1201	456	21	21	77	114	1	8	8			131	364	
Cumberland	1199	600	13	4	66	53	1	93	93			195	81	
Dauphin	2622	1502	10	2	153	237	57	103	109			241	208	
Delaware	8712	2698	26	4	1578	902	358	619	620			547	1360	
Elk	1032	358	24	14	36	95	45	25	27			47	361	
Erie	3187	2083	10	8	792	154	3	2	3			91	41	
Fayette	1685	793	32	2	119	186	253	4	4			214	85	
Forest	97	25	1	1	6	16						34	14	
Franklin	2476	1221	106	54	143	89	18	118	119			201	407	
Fulton	130	23	7		15	14	1	4	4			50	12	
Greene	647	341	17	1	16	49	2	18	20			115	68	
Huntingdon	1142	748			84	58	5	39	44			147	17	
Indiana	909	363	13	4	33	132	1	28	27			211	97	
Jefferson	1715	964	32	3	88	161	4	66	67			98	232	
Juniata	258	105	4		5	15	2	4	4			73	46	
Lackawanna	8647	4130	15	7	2326	1107	30	217	208			94	513	
Lancaster	4448	2372	39	17	173	101	16	469	494			317	450	
Lawrence	1702	1184	7	1	71	140	1	2	2			133	161	
Lebanon	1973	1081	50	13	126	92	2	34	50			113	412	
Lehigh	1041	687	1		29	114		10	11			90	99	
Luzerne	4082	2115	16	5	285	558	84	101	103			338	477	
Lycoming	2578	1335	10	2	485	115	5	185	193			113	135	
McKean	999	559	23	12	36	63	13	12	12			50	219	
Mercer	945	536	7	11	18	165		11	4			117	76	
Mifflin	648	422	13	9	28	47	5	16	15			22	71	
Monroe	639	312	10	8	39	65	8	11	11			110	65	
Montgomery	3136	1068	8	6	83	286	327	103	105	30	2	437	681	
Montour	150	46	1	19		5						73	6	
Northampton	1832	963	3		222	170	3	60	60			152	199	
Northumberland	2515	1470	16	5	250	220	52	33	33			121	315	
Perry	219	73	5	2	6	19	3	7	7			87	10	
Philadelphia	14108	6008	43	23	3654	206	328	1681	892	10		142	1121	
Pike	153	18			16	14	4	5	5			88	3	
Potter	232	94		1	15	24	21	4	4			33	36	
Schuylkill	2933	1756	8	1	139	300	4	54	54			190	427	
Snyder	233	121	9	2	25	14		1	1			34	26	
Somerset	879	433	28	13	69	59	2	5	7			185	78	
Sullivan	52	13		1	1		2					20	15	
Susquehanna	238	78	4		15	29	13	6	6			66	21	
Tioga	1604	592			39	10		403	409			92	59	
Union	737	382	9	5	228	11	2	1	1			58	40	
Venango	1726	1124	12	9	26	39	10	33	33			202	238	
Warren	664	428	4	2	24	62	1	4	4			83	52	
Washington	2873	1210	22	7	320	208	7	6	10			258	225	
Wayne	379	179			14	51	6	18	20			61	30	
Westmoreland	4278	2402	16	12	204	377	76	131	133			365	562	
Wyoming	112	28	2	2	8	5	1	2	2			57	5	
York	1997	831	39	7	141	286	11	156	156		1	199	170	
OUT OF STATE	467	240	2	1	14	6	51	1	1			23	128	

TABLE 2.—Division of Laboratories all Tests (Exclusive of Water) According to Age, Sex, Color, Source, and Results: 1933

	Age Period	Total	Sex			Color			Source			Result		
			Male	Female	Unknown	White	Colored	Unknown	Physician	Institution	Department of Health	Positive	Negative	Indeterminate
Total Tests	All Ages	119380	52265	60987	6128	90122	9303	19955	75903	21427	22050	17813	93254	8313
	Under 20 yr.	14775	5791	8770	214	12187	1185	1403	9147	2624	3001	1801	12223	751
	20-44 yr.	55274	28507	26360	407	46818	4361	4005	41589	3568	10117	8759	42884	3631
	45 yr. and over	20315	11140	8943	232	17438	1202	1675	16232	730	3353	3798	14450	2067
	Age unknown	29016	6827	16914	5275	13679	2555	12782	8935	14505	5576	3455	23697	1864
Syphilis	All Ages	64716	31851	28370	4495	48568	4960	11188	39100	11188	14178	8733	51898	4085
	Under 20 yr.	7094	3032	3937	125	5724	696	674	3866	1551	1677	801	5936	357
	20-44 yr.	32946	18168	14572	206	27899	2697	2350	23741	2247	6958	4864	25936	2146
	45 yr. and over	10040	6348	3608	84	8726	570	741	7222	561	2257	1127	8305	608
	Age unknown	14636	4203	6253	4089	6219	997	7420	4271	7079	3286	1941	11724	974
Typhoid	All Ages	1221	723	474	24	984	37	200	1011	6	204	295	891	35
	Under 20 yr.	325	165	159	1	271	11	43	286	5	34	99	218	8
	20-44 yr.	504	339	161	4	441	9	54	455	.....	49	123	361	20
	45 yr. and over	183	104	76	3	164	2	17	157	1	25	23	156	4
	Age unknown	209	115	78	16	108	15	86	113	.....	96	50	156	3
Abortus	All Ages	460	263	179	18	316	6	138	353	5	102	38	419	3
	Under 20 yr.	87	49	36	2	61	5	21	73	4	10	4	82	1
	20-44 yr.	172	105	64	3	149	1	22	141	1	27	13	157	2
	45 yr. and over	76	44	30	2	66	.....	10	66	.....	10	9	67	.....
	Age unknown	125	65	49	11	40	.....	85	70	.....	55	12	113	.....
Gonorrhea	All Ages	15018	2979	11779	260	10716	1470	2832	5887	6732	2399	1523	13494	1
	Under 20 yr.	1791	191	1500	10	1547	116	128	914	405	472	180	1611	.....
	20-44 yr.	5251	2331	2976	44	4596	230	425	4158	417	676	943	4307	1
	45 yr. and over	208	129	72	7	183	8	17	182	9	17	55	153	.....
	Age unknown	7768	428	7141	199	4390	1116	2262	633	5901	1234	345	7123	.....
Tuberculosis	All Ages	9834	5071	4574	189	7961	868	1005	7413	551	1870	1617	8210	7
	Under 20 yr.	1602	672	921	9	1298	194	110	1172	81	349	153	1149	.....
	20-44 yr.	5423	2777	2600	37	4557	528	338	4184	190	1049	981	4438	4
	45 yr. and over	1914	1271	632	11	1666	126	122	1545	83	286	332	1581	1
	Age unknown	895	351	412	132	440	20	435	512	197	186	151	742	2
Diphtheria	All Ages	2331	1510	692	129	1766	71	494	1737	471	123	43	2286	2
	Under 20 yr.	719	328	385	6	607	10	102	340	372	7	27	692	.....
	20-44 yr.	919	756	155	8	836	46	37	854	30	35	12	905	2
	45 yr. and over	209	172	37	.....	191	9	9	196	.....	13	.....	209	.....
	Age unknown	484	254	115	115	132	6	346	347	69	68	4	480	.....
Albumin	All Ages	6447	1656	4609	182	4782	840	825	4744	1441	262	655	3948	1844
	Under 20 yr.	795	294	490	11	647	64	84	631	95	69	51	538	206
	20-44 yr.	2242	576	1640	26	1722	319	201	1794	322	126	152	1481	609
	45 yr. and over	1773	604	1129	40	1428	172	173	1687	33	53	322	949	502
	Age unknown	1637	182	1350	105	985	285	367	632	991	14	130	980	527
Sugar	All Ages	7761	2529	4998	234	5964	704	1093	6766	629	366	1381	5477	903
	Under 20 yr.	882	349	519	14	745	63	74	731	70	81	68	751	63
	20-44 yr.	2726	811	1883	32	2128	350	248	2233	323	170	252	2195	279
	45 yr. and over	3042	1088	1908	46	2533	216	293	2929	35	78	895	1717	430
	Age unknown	1111	281	688	142	558	75	478	873	201	37	166	814	131
All Other Tests	All Ages	11592	5683	5312	597	9065	347	2180	8892	154	2546	3528	6631	1433
	Under 20 yr.	1480	711	733	36	1287	26	167	1134	41	305	418	946	116
	20-44 yr.	5091	2714	2300	47	4490	181	420	4026	38	1027	1419	3104	568
	45 yr. and over	2870	1380	1451	39	2481	99	290	2248	8	614	1035	1313	522
	Age unknown	2151	848	828	475	807	41	1303	1484	67	600	656	1268	227

the State Laboratory in the performance of their public health duties.

It should be the desire of every public health laboratory to confine its activities to those which are definitely beneficial to the protection and conservation of public health and of a distinctly charitable nature. Just as the physicians and public are aided by the Department's scientific facilities in this war upon disease, so must the physician and the public aid the Department in applying its efforts to only appropriate problems. We invite information leading to correction of inappropriate uses of the Laboratory. In further proof of this desire may it be stated that the Pennsylvania Department of Health Laboratory is being taxed almost beyond its powers. The laboratory demand is rapidly outgrowing its staff and facilities. In conclusion, therefore, may this article be accepted as a plea for help

from the State, the people, the physicians, and the private institutions.

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ERRATA

In the July, 1934, number of the JOURNAL, on page 835, appears an article "The Medical Profession Meets a Crisis," written by Dr. Robert L. Anderson, of Pittsburgh. Credit should have been given to the fact that the paper was read April 7, 1934, at the Regional Meeting of the Pennsylvania Conference on Social Welfare in Pittsburgh.

On page 837, in discussing the Emergency Child Health program, the text should have stated it had its conception at a meeting of welfare workers to which the public were invited, arranged by Governor Pinchot to which he invited Dr. Charles Falkowsky, Jr., the then president of the State Society, as well as Mrs. Franklin D. Roosevelt, of Washington, D. C., to appear on the program at Harrisburg, Feb. 2, 1933.

TRAUMATIC ABDOMINAL EMERGENCIES*

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Seldom is the surgeon burdened with greater responsibilities or confronted with more serious problems in diagnosis and determination of proper treatment than in the presence of acute abdominal catastrophe. These burdens and problems are multiplied many fold should such catastrophe be the possible result of a nonpenetrating trauma to the abdominal wall, and there is no previous history to give an inkling as to the site of the lesion, in which multiple injuries to the viscera are common and the initial signs and symptoms frequently so mild or disproportionate as to lead to serious or fatal delay in surgical intervention. Nor is the task any less severe when in the presence of possible serious visceral injury the surgeon's judgment dictates the withholding of a laparotomy.

We have all had these moments of dire anxiety, of indecision, well knowing that a life probably rests in the balance. Nor have our pathways been smoothed by the controversial opinions arising from equally eminent authorities, and frequently appearing in the literature. Most of us can be in accord neither with the ultraconservative nor with the extreme radical. Moreover what at times appears radical may in fact and in results be eminently conservative. Except for the recognition and guidance of familiar and broad general principles, each case of abdominal traumatism in which the probability of serious visceral injury is in question should be considered individually. The diagnosis, treatment, and results are the responsibility of, and must depend upon, the experience and judgment of the particular surgeon in charge. Statistics and case reports of others are of no great help to one in the determination of the presence, or absence, of intra-abdominal injury at the time the diagnosis—the keynote to the problem—should be made.

While hasty, ill-considered exploration is certainly to be condemned, procrastination in the face of ominous symptoms and delay in the attempt to make a minutely accurate diagnosis of the exact site and type of lesion is no less subject to criticism. To wait for the signs of frank peritonitis or massive hemorrhage is sure to increase the hazards and frequently leads to disappointment and defeat. The art—one hesitates to say intuition—of the surgeon, or its lack, is here, if anywhere, a most potent element in success or failure.

The requisites which are of indisputable aid in diagnosis and the shaping of an assured opinion will be recited later. Of greatest importance are a most careful history of the details of the injury, a consideration of the physics of the various types of force to which the abdomen may be subjected, and the visceral injury which each is most likely to inflict as well as the reasonably confirmatory, early symptoms and signs of such injury.

When we have to deal with visceral injury in the presence of a penetrated abdominal wall, the problem is greatly simplified as it is generally conceded that early exploration and repair are necessary for a lowered mortality. Most, though not all, such injuries are the result of intentional violence, stab or gunshot. The injuries commonly sustained from one or the other, and the mortality, vary considerably. The death rate from gunshot is twice that resulting from ordinary stabbing.

The damage resulting from a stab will be localized to the region of the wound of entrance. The greater number of such wounds will involve the lower half of the abdomen, away from the higher-lying, more vascular and vital structures, and, therefore, there is less danger of massive hemorrhage. Most bullets enter the upper abdomen, more frequently involve the liver, stomach, pancreas, kidneys, spleen, and great vessels; the lesions are multiple and widespread and more apt to be complicated by associated injury to the chest. The determination of the extent of visceral damage, especially in the absence of a wound of exit, is impossible prior to exploration.

Hemorrhage, operative delay, and undiscovered visceral wounds are important causes of the high mortality. The initial shock is of primary consideration and must receive first attention except in the face of persistent or increasing signs of hemorrhage. The extent and magnitude of the necessary operative procedures, as in all traumatic cases, depend entirely upon the pathology exposed on the table. Blood transfusion immediately before or during operation will frequently prevent an otherwise hopeless situation. The whole subject of penetrating wounds of the abdomen has been most aptly and instructively presented in a recent article by Billings and Walkling.

We have already emphasized that the maximum difficulties to diagnosis and the greater controversies over the question of early opera-

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1934.

tive interference are occasioned by those cases of suspected visceral injury in the presence of an intact, often apparently uninjured, abdominal wall. Routine exploration on suspicion only can lead but to many unnecessary operations, with their jeopardy to life and frequently unfortunate sequelae. Unduly postponed in the hope of more accurate diagnosis, it may burden the surgeon with an avoidable fatality, remorse, and self-condemnation.

An intelligently directed history of the details of the injury is of prime importance: The position of the patient at the time of injury; the physical nature of the offending object, its size, velocity, and exact site of impact. Was there warning of the impending blow? Was the abdomen subjected to compression? Did the accident closely follow the taking of food when the stomach is most likely distended? Was the urinary bladder filled or had the patient recently voided? What were the immediate and subsequent subjective symptoms? The greater susceptibility to rupture of previously diseased and weakened viscera, such as a pathologically distended gallbladder, a carcinoma of the stomach or colon, a gastric or duodenal ulcer, should be borne in mind. Injury to the lower chest, severe compression, or fractured ribs may involve structures below the diaphragm, especially on the left, and are not infrequently the cause of splenic rupture. The diaphragm itself may be extensively torn even in the absence of bony injury. The frequency of injury to the urinary bladder and urethra, the most serious complications of fractures of the pelvic girdle, needs no emphasis. Extensive and usually fatal laceration of the rectum from the explosive force of a stream of air or water directed in playful sport against the anus has probably been seen by most of us. An unusual example of such rectal injury was presented by the case of a male morphine addict. He conceived the brilliant idea of administering himself a more effective enema by attaching the connecting tubing to the water spigot. The results at least relieved him of the necessity for further evacuations.

In general the resistance to injury of different intra-abdominal structures varies considerably with the type of trauma to which they may be subjected. Thus the liver may be injured directly or indirectly. It may be lacerated or torn from its attachments by falls or by the body being forcibly thrown. While smaller capsular tears are not uncommon, massive liver damage is usually an accompaniment of such severe crushes of the chest or abdomen that immediate or early fatality is unavoidable. That severe liver damage may be caused by compression of

the middle and lower abdomen is shown by the case of a trainman who was squeezed between two cars, the force being exerted down and backward from the level of the umbilicus. He was seen within an hour with massive intraperitoneal hemorrhage. After immediate transfusion, laparotomy revealed a liver almost completely bisected. Through the round ligament the falciform ligament had been dragged downward, severing the liver like a knife. The liver was sutured and the man recovered. This is the only patient with extensive laceration of the liver I have seen recover. Minor liver injury is probably quite frequent, many are discovered on exploration. Few of these necessitate suture. Packing the liver wound or omental graft is often preferable to suturing.

The spleen is more susceptible to trauma. It is really poorly protected, swings more or less freely on its attachments, is extremely friable, possesses an inadequate protective capsule, is highly vascular, and its injuries are followed by profuse hemorrhage. The spleen may be seriously injured by what seems to be surprisingly insignificant trauma and usually indirectly, by sudden dislocation from jolting, or sharp posterolateral angulation of the body just below the left costal margin, over the sharp margin of a chair or automobile seat. The rear seat of the old model T Ford car was productive of many splenic ruptures. Lacerations of the spleen cannot be sutured, and if sufficiently severe to cause frank and alarming hemorrhage, demand immediate operation and splenectomy. A sufficiently frequent symptom of splenic rupture to warrant emphasis is reflex pain due to phrenic irritation, localized in the supraclavicular fossa or point of the acromion.

Injury to the pancreas, other than by penetration, is extremely rare, occurring only in such terrific traumatism that the services of the surgeon are of no avail. It is the best protected of the abdominal viscera. Any serious pancreatic injury will be followed by an acute pancreatitis, of which the symptoms, treatment, and usually fatal result are well known.

Minor injuries to the mesentery are probably quite common. Extensive tearing frequently accompanies subcutaneous ruptures of the intestine if due to compression. The entire mesentery may be torn off at its root with no other visceral damage. The symptoms are those of hemorrhage and the operative procedure depends upon the extent of damage: Ligation of the torn vessels and suture of the rent or perhaps resection, often extensive, of devascularized portions of small intestine.

Though anatomically the kidney would seem well protected, its vulnerable point to direct blow lies in the outer part of the costovertebral angle. Tears, or so-called ruptures, of the kidney are seldom operative emergencies and their diagnosis, if unaccompanied by extrarenal damage, usually easy. Bloody urine or even definite perirenal hemorrhage is no indication for operation. Occasionally is any but a conservative attitude justified by continuous serious hemorrhage or secondary infection of a hematoma.

Traumatic rupture of the gastro-intestinal tube is considerably enhanced by overdistention of a viscus at the time of injury. Usually the stomach, duodenum, and gallbladder are well protected except from deep crushing or marked compression against the bony structures at the back. If so produced multiple injuries are common, frequently involving its mesentery and neighboring structures in addition to the ruptured viscus. Abdominal compression by squeezing or the application of other force over a large area of the abdominal wall is conducive to the more extensive tears of the small intestine, most frequently along its mesenteric border with accompanying damage to its blood supply. The victim is menaced by both hemorrhage and peritonitis.

I have never seen a case of duodenal tear, nor one involving the upper jejunum except in penetrating injuries or massive crushing. In nearly all cases the ruptures have been found in the lower ileum. Contrary to the experiences of some, the ruptures have obviously been produced, not by torsion, but by secondary intra-intestinal hydraulic or pneumatic forces set up in a loop of bowel if the abdominal wall directly overlying has been subjected to the impact of a small, or relatively small, object traveling at high velocity. Such accidents occur so quickly, or because the patient does not see the oncoming blow, that the usual reflex muscular protective tonicity is absent and its force is projected to a point on the underlying bowel, the contents of which, gaseous or liquid, are propelled with great force to both ends of the loop in which it is suddenly inhibited. If this bursting force be of sufficient magnitude, the intestinal wall at one or both of these points lets go. About half of our cases have shown the 2 ruptures, from 8 to 12 inches apart. These ruptures are small, simulate a bullet wound and are antimesenteric in position. Almost all have no external evidence of injury, either on clothing or abdominal wall. Shock is not marked and at first, perhaps for several hours, leakage of intestinal contents slight, owing to the plugging of the opening by mucosa

and spasm of the circular muscles. The history of such trauma, with persistent or increasing symptoms of intraperitoneal havoc should suggest the probability of rupture. The back-thrust of a lever, the kick of a domestic animal, the impact of a thrown or rapidly projected tool, a fall upon a small nonpenetrating object, are examples of this type of producing trauma.

Because of its protected position and its great elasticity, nonpenetrating wounds of the colon, except in its transverse portion, are so extremely rare that they scarcely deserve mention. Even less deserving is the appendix, the best protected of all, were it not for the regrettable fact that some one coined the term, traumatic appendicitis. Obviously an appendiceal abscess, or any other abscess or cyst, may be ruptured by trauma, but the assumption even of the possibility of its being an etiologic factor in acute appendicitis would appear to require an intolerable stretching of the imagination. Our better judgment is often the slave to the idea that "anything is possible."

While the complications of hemorrhage or perforation of an existing ulcer of the stomach or duodenum may be precipitated by abdominal trauma, sound clinical and experimental evidence certainly does not support the theory of its causative relationship in the initiation of the disease. Even more untenable is the indictment of a single traumatism for being responsible for visceral carcinoma. True it is that an ulcerating, friable, malignant mass is susceptible to traumatic complications, hemorrhage, fragmentation, rupture, or an edema hastening obstruction, but such complications are immediate or result early. Without immediate effects of direct injury and especially if the site of the trauma is far removed from the malignancy, it is difficult to rationalize even the claim of acceleration or aggravation of the growth.

It is increasingly customary in these days of frequent claim for industrial compensation and personal injury, for patient and relatives, usually honestly, and the shyster lawyer often dishonestly, to associate all sorts of disease with some long-forgotten, frequently insignificant, injury. Pulmonary tuberculosis, myocarditis, asthma, cirrhosis of the liver, visceral carcinoma, "dropped" viscera, salpingitis, uterine fibroma and displacements, prostatism, gonorrheal epididymitis, and even bunions, are but a few conditions that to the writer's knowledge have been thus distinguished. Unfortunately, but humiliating to admit, such claims not infrequently are supported by so-called expert testimony. The chagrin, the ridicule, the loss of prestige and

confidence thus accruing to our profession are deplorable. The fault lies not with the courts or with lay juries, but it and its correction are wholly the responsibility of physicians. If we must go into court, let it be without prejudice, with opinions based upon actual findings and accepted facts, unswayed by professional relationship, personal sympathy, or by the dangling of an attractive fee.

You will not be burdened with various statistics pertaining to the 399 cases of abdominal injury of sufficient severity to be admitted to the surgical services of the Western Pennsylvania Hospital during the past 10-year period. Their relative frequency is comparable to that of most other hospitals. Of these, 144 were penetrating wounds. With us it seems that their frequency varies with industrial activity. Those from non-industrial accidents continue at about an even level.

Some one has enumerated about 60 various injuries to the viscera as the possible results of traumatism. In the presence of an obvious lesion, any attempt at a minutely accurate differential diagnosis by the ultrascientist is certain to be futile except to contribute to a higher mortality. Confronted by a case in which the history is suggestive of the possibility of grave intra-abdominal havoc, upon what evidence, plus that intangible thing called judgment, are we to base our decision for or against an abdominal section?

1. No operation should be attempted until the patient has reacted from the primary shock, if such be present. If the shock be due to massive or continuous hemorrhage, laparotomy together with transfusion should be done at once. In many cases of visceral rupture with little or no hemorrhage, initial shock may be surprisingly little or entirely absent and one should not be too much misled by this. Secondary shock similar to that of perforated ulcer is terrific, may occur from 2 to 3 hours after injury, if it is due to the late effects of a continuous hemorrhage, or the sudden spilling of intestinal contents, heretofore prevented by the early reflex spasm of the circular muscles of the bowel and plugging of the perforation by prolapsed mucosa—it means the beginning of peritonitis, and in either event is indicative of serious damage and the advisability of laparotomy.

2. Pain, first general, then localized, is the most constant symptom of visceral damage, if as is usually the case, blood or intestinal contents come in contact with the parietal peritoneum.

If it extends beyond 2 or 3 hours after injury it deserves important consideration.

3. Vomiting occurring early is not unusual, owing to splanchnic irritation or shock; persisting or appearing 2 or 3 hours after the accident, it is of serious importance.

4. Tenderness and rigidity plus a positive viscerocutaneous reflex are common early localizing signs of visceral rupture. Care should be taken to distinguish these from the more localized, but similar, symptoms of superficial bruising.

5. Beware of the silent abdomen. Inhibition of peristalsis caused by splanchnic jolt is common; persisting beyond 3 hours, it becomes of ominous importance.

6. Fever (excepting that commonly following recovery from shock), distention, persistent regurgitant vomiting and leukocytosis, are not the early symptoms of visceral damage. They are indicative of a frankly diffuse peritonitis and delayed operation.

If the indications for exploratory operation are absent, the treatment is symptomatic with care in the use of morphine, and careful observation. If operation is necessary, the procedures must depend entirely upon the pathology revealed.

In general no dogmatic course can be followed. The safety of the patient depends largely upon how cautiously and intelligently we guide our action between the Scylla and Charybdis of blind timidity and unwarranted boldness.

Western Pennsylvania Hospital.

ABSTRACT OF DISCUSSION

HENRY P. BROWN (Philadelphia): Few problems tax one's surgical ability and judgment more than these obscure abdominal injuries in which we are uncertain as to the underlying trauma to the viscera. If we do not know the extent of the underlying trauma and the symptoms persist, it is much safer to open the abdomen and determine the extent of the lesion, and do the repair necessary, rather than expose the patient to the risk of peritonitis, hemorrhage, *etc.* For example, in an automobile accident, a person was thrown across the steering wheel. Operation 24 hours afterward revealed a rupture of the diaphragm, stomach, spleen, *etc.*, and most of the intestines were in the chest cavity. In injury of the small intestine, symptoms of peritonitis may not appear early.

Another person who was in the back of a car was thrown against the front seat. In this case we suspected an injury of the liver and traumatic amputation of the gallbladder was found. Should an honest doubt as to the presence of injury exist, it is much better to open the abdomen and determine the location and extent of the injury. If no lesion is present the patient has been done but slight harm; if something is wrong it can be corrected.

EDITORIALS

TO THE READERS OF PAPERS AT THE ANNUAL MEETING

Those who are preparing papers to be read at the annual meeting of the State Society are earnestly requested to bear in mind the following routine procedures.

All papers must be typewritten, double-spaced. The original copy, and not the carbon copy, is to be handed to the secretary of the section before which the paper is read immediately following the reading thereof, as these papers belong to the State Society and must be properly assembled for publication in the official transactions of the State Society. Papers must be prepared of such length that they can be conveniently read in the time allowed the reader on the official program. There is a tendency on the part of certain members to prepare a lengthy paper and read the same in abstract in the required length of time, and then submit the more extensive article for publication. It necessitates the returning of such articles to authors for their condensation. Occasionally an article is prepared which the author considers inexpedient to condense for publication to correspond to the time required for its reading. Under such circumstances the author may be given permission to publish the article in some other journal with the distinct understanding that due credit be given for the paper having been read before the annual meeting of the State Society. This procedure is not encouraged, because failure to publish the paper in the State Society JOURNAL renders incomplete the publication of the official transactions. The author is limited to seven illustrations, for which no charge is made.

Kindly do not underline words; this signifies to the typesetter that such words are to be put in italics. Many readers of papers do not conform to the proper usage of italics, and it requires much deleting if words are unnecessarily underlined. Authors are, therefore, asked to refrain from underlining any words in the manuscript. Such words requiring italics to meet the general make-up will have proper attention in the editorial office.

"HOW LONG, OH LORD, HOW LONG!"

That sage bit of advice to the young preacher that "no souls are saved after one half hour" might well be extended to include the scientific burbles of the young medical man. It may well

be added that it applies equally well to the old preacher and the old physician. Fortunately the average doctor does not indulge in public speaking to any great degree. There are, however, the medical meetings. These gatherings can and should be made of the greatest value to participants—but, we must sadly add, they can and should not be—yet all too often are—made veritable means of torture to the long suffering colleagues of the ambitious doctor who is bound to say it all at whatever cost to them. Recently we have seen well planned programs in our local medical gatherings utterly ruined by the indefensible prolongation of a scheduled twenty-minute address to a full hour—with the crowding of an eminent out of town speaker far into the night. Under such circumstances the guest must face an audience whose temper has been already ruined and in whom evidences of advanced fatigue are all too apparent. Such action is thoughtless and discourteous. It must in all fairness, however, be added that the guest speakers themselves have been, within our memory, even worse offenders than the local gentry on occasion.

There is also another phase to the matter. The utmost care in the planning of the meetings and warning of the speakers on the part of the presiding officer has been proved to be of no avail by our recent experiences. The Journal respectfully calls the attention of these gentlemen to the fact that in most of these societies a "gag rule" exists, and that it is the duty of the presiding officer in every case to terminate the addresses on time and protect the audiences entrusted to his care. The Journal also respectfully suggests that the presiding officers of our state and local medical societies have installed a system of warning lights or other signals, such as are used in most medical communities, and *use these devices*. In so doing they will merit and receive the hearty commendation of their confrères.—*Editorial, Rhode Island M. J.*, July, 1934.

THE 1934 SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The 85th Annual Session of the A. M. A. was held June 11 to 15, 1934, at Cleveland, Ohio. The medical profession of Cleveland did its utmost to carry to a successful fruition its program of entertainment, an opening meeting, and a number of receptions and banquets.

All the multitude of activities incident to an annual session of the A. M. A. were satisfactorily consummated. The scientific sessions, the scientific exhibits, and the technical exposition, maintained their high grade of efficiency. The total registration was 6293; Ohio naturally had the greatest number, 2122, with Pennsylvania next, 721.

At the opening general meeting, Walter L. Biering of Des Moines, Iowa, was installed as president. The presentation of the medal to retiring president Dean Lewis of Baltimore, Md., was made by Chairman J. H. J. Upham of the Board of Trustees.

The following Pennsylvanians read papers:

Section on Surgery: "Alterations of Function in Biliary Tract Disease," I. S. Ravdin and C. G. Johnson, Philadelphia.

Section on Ophthalmology: "Unilateral Central and Annular Scotoma, Produced by Fracture of the Optic Canal," Walter I. Lillie, Philadelphia; "Some Factors Concerned in the Correction of Aphacia," Alfred Cowan, Philadelphia.

Section on Laryngology, Otology, and Rhinology: Robert F. Ridpath, Philadelphia, vice-chairman. "The Importance of Allergy in the Etiology and Treatment of Nasal Mucous Polyps," Richard A. Kern and Harry P. Schenck, Philadelphia; "Agranulocytic Angina or Malignant Neutropenia," Robert F. Ridpath, Philadelphia; "Roentgen-ray Changes in the Petrous Portion of the Temporal Bone Without Clinical Manifestations," George M. Coates, Matthew S. Ersner, and David Myers, Philadelphia.

Section on Pediatrics: Ralph M. Tyson, Philadelphia, secretary. "Antitoxin vs. No Antitoxin in Scarlet Fever," James E. Bowman and Pascal F. Lucchesi, Philadelphia.

Section on Pathology and Physiology: "Is Hodgkin's Disease a Neoplasm or Due to Infection?" Edward B. Krumbhaar, Philadelphia.

Section on Nervous and Mental Diseases: "Spastic Paraplegia," Nathaniel W. Winkelman, Philadelphia; "The Influence of the Cortex on Gastro-Intestinal Movements," James W. Watts, Philadelphia; "The Treatment of Psychoneuroses in General Practice," Lauren H. Smith, Philadelphia.

Section on Dermatology and Syphilology: "Dioxanthanol 1-8 as a Substitute for Chrysarobin," Herman Beerman, George V. Kulchar, Donald M. Pillsbury, and John H. Stokes, Philadelphia.

Section on Urology: "Immunologic Aspects of Gonococcic Infections," Percy S. Pelouze, Philadelphia.

Section on Orthopedic Surgery: "Nonoperative Treatment of Fractures of the Bones of the Forearm," Voigt Mooney, Pittsburgh; "The Epiphyseal Growth Disk," E. L. Armstrong, Erie.

Section on Gastro-enterology: "Intestinal Tuberculosis," Russell S. Boles and Jacob Gershon-Cohen, Philadelphia; "Gastrosocopy," Chevalier Jackson and Chevalier L. Jackson, Philadelphia; "Krankenberg Tumor," Frank G. Runyon, Reading; "Proteins vs. Carbohydrates, A Study of Their Gastric Digestion," Martin E. Rehfuess, Philadelphia.

Section on Radiology: The Roentgen Diagnosis of Tumors of the Bladder and Their Serial Study Under Treatment by Irradiation," George E. Pfahler and Jacob H. Vastine, Philadelphia; "The Effect of Intracranial Tumors on the Sella Turcica," Karl Kornblum and Leslie H. Osmond, Philadelphia.

The following is part of an editorial that appeared in a Cleveland newspaper.

Many observers will be impatient with the medical men for the conservative view which they apparently are preparing to take on all suggestions of socialized medicine. While official action has not yet been taken, competent observers believe that the convention will turn thumbs down upon all suggestions for changing the present method of medical practice.

It may prove that the doctors are lagging behind the social processions. But it must be remembered that the doctors are conscious of the fact that the present system has engendered the present high development of American medicine.

Their present frame of mind is, therefore, easily understood. Certainly no one can quarrel with their intention to oppose all changes until they can be convinced that any suggested change will not lower the standard of American medical practice.

Here is another editorial, entitled "Conservative Doctors."

If the resolutions of the American Medical Association read somewhat like the resolutions of an old-guard Republican campaign committee, it is for like reasons.

They wish the depression hadn't happened, and they can hardly believe that it did. And they like to believe that, if we just sit tight and let nature take its course, nothing like it will ever happen again. They hope that the free play of economic forces will again make everybody prosperous—prosperous enough to pay their doctors' bills, anyhow—and permanently prosperous, next time.

One can sympathize with the fear physicians feel toward any scheme in which government officials, politicians, insurance company executives, or somebody would be bossing the doctors.

But how prevent the spread of public clinics, hospitals, and insurance plans as long as millions of people cannot pay for medical care?

The doctors will not go so far as to say that all our public hospitals and public clinics now in existence ought to be abandoned. But they are reluctant to see them multiplied.

Perhaps it all comes down to one's view of the probabilities about the future volume of unemployment in America. For the time being, the doctors who can afford to attend conventions prefer to believe that everybody is soon going to be prosperous again. They do not wish to see a permanent expansion of public institutions based on a temporary emergency.

If, on the other hand, the economic status of a very large fraction of the population is going to continue uncertain, government will inevitably be drawn deeper into the effort to make that first essential—medical care in time of sickness—more certain through collective action.

To us it would seem wiser for the medical profession, instead of trying to preserve a status that has not actually existed for years, to take the lead in formulating a plan whereby the burden of costs could be reduced or distributed without impairing the profession's control of its own activities.

If the doctors wait until some one else forces a scheme upon them, it may be less to their liking and less satisfactory in its results.

The following is a digest of the more important features of the meetings of the House of Delegates. The minutes appear in full in the *Journal of the A. M. A.*, June 23 and 30, 1934. The meetings of the House of Delegates were conducted by the speaker, Dr. F. C. Warnshuis.

ABSTRACT OF ADDRESS OF SPEAKER WARNSHUIS

(Equally applicable to any state society meeting.)

As delegates you are the representatives of your state organization and their members. On you rests full responsibility for action that may be recorded and for the policies and directions that may be affirmed. Whatever may be the national problems of this federation and of its members, the action that will accomplish their solution must be formulated by you who speak and act for the members of the Association's constituent units. They rightly look and appeal to you to conserve and enhance their collective and individual interests.

The cry today in all avenues of life is for intelligent, achieving leadership. The responsibility for leadership in medicine and our medical relations to the public and to government rests with this House of Delegates. He considers he committed no violence to facts in stating that if, in these days of radical changes in governmental administration and increasing demands of society, our professional interests are subsidized and we surrender our existent relationship to society, the fault descends in a large measure on this House for having failed to mobilize all its resources to obstruct such an untoward condition and for having failed to undertake the defeat of those who seek to invade the field for the control of our professional services.

Reference Committee hearings are announced and posted. Delegates are urged to appear before these committees for discussion and inquiry.

Chairmen of Reference Committees might well offer comments on the points raised during the hearings when presenting those portions of their reports dealing with major problems or policies of the Association.

Delegates from Pennsylvania were on the following Reference Committees: Amendments to Constitution and By-Laws, John N. Hunsburger; and Medical Economics, William H. Mayer; Sergeants-at-Arms, Howard C. Frontz.

ABSTRACT OF THE ADDRESS OF PRESIDENT DEAN LEWIS

The medical fraternity gladly assumed the responsibilities which they have been forced to meet during the depression. They have assumed these without complaint, and it is without any attempt at patronizing to say that he knows of no organization, either lay or professional, that has rendered such service without complaint. The health of the people has been maintained at a high level. Whether or not the profession is to be given entire credit for this may be a matter of dispute, for it seems that the wind is always tempered to the shorn lamb, for statistics which have been gathered for a number of years have shown that the mortality and morbidity during periods of depression are always low. Social workers apparently are not fully conversant with these facts for there is a tendency on their part to credit this state of health to their unremitting, untiring, and self-sacrificing efforts to ameliorate suffering and prolong life, little realizing that Providence works in strange and wondrous ways.

The medical profession has no apologies or excuses to make, for cities could not have survived epidemics, international trade routes could not have been established, and the span of life would not have been long enough to justify the pangs of labor. It is sometimes a wonder why contraceptive measures were not discussed and introduced years ago when the span of life was so short that the futility of birth must have been frequently discussed.

The profession is troubled. They should realize that they provide the essential part of the care, and without their untiring effort and sacrificing service there would be no medicine, for medical knowledge demands the longest and most technical training of any profession.

Society has been urged to place restrictions on medical practice on the solicitations and frequently the demands of the medical profession. The state in this country which has probably the best medical practice act had a wise governor who was sympathetic with the medical profession and had enough wisdom to select a committee of reputable physicians who wrote an act which he accepted without revision or reservation. This act is in strange contrast to that operative in many states, in which the politicians or laymen have tried to determine for a highly technical profession who should be qualified and how, notwithstanding the fact that fads, fanatics, quacks, and cults flourish and propagate their kind in such states.

If the quality of medical care is to be high, we must have vision and exercise judgment at the beginning, when the student is admitted to the medical school. Character should have a higher assessed value than marks alone. The matriculation fee should not be so high that only the children of the well-to-do can enter; neither should it be so low that all may enter.

The quality of medicine is largely determined during the four years of the medical course but must be maintained by wise planning afterward. On leaving the medical schools not infrequently these men never have an opportunity to take patients to the hospitals or to associate with men whom they admired, and they are denied the chance to study gross pathology, which still remains the foundation stone of medicine. To furnish the material with diagnosis, verified by operation or necropsy, is one of the hardest tasks in maintaining the quality of medical care and to the solution of which we should give most serious attention.

A relatively small percentage of doctors attend medical meetings. In order to keep these doctors abreast

of the new ideas, graduate courses of instruction should be given. Such attempts to give courses have been undertaken by a large number of medical societies and he has been particularly impressed by the plan of the Medical Society of the State of Pennsylvania, which has been supported so enthusiastically and successfully by its president, Dr. Donald Guthrie. In the not too distant future a study of the possibilities of such graduate instruction should be undertaken by a committee of this House, or by the Council on Medical Education and Hospitals, which already has about all the problems that it can successfully handle.

The medical profession requires the good will and respect of the people. Nothing makes people more suspicious of those engaged in the practice of medicine than the expert witness.

If the quality of medicine is to be raised, control of methods that are practiced must be strictly and carefully applied. Hasty publication should be discouraged. Publication should be based on accumulated knowledge.

There are two disturbing factors in medicine. First, many doctors and lay persons condone advertising. Lay persons should realize that advertising in medicine is pernicious, for advertising may wilfully deceive. Commercialism and advertising are among the most demoralizing things in medicine.

ABSTRACT OF ADDRESS OF PRESIDENT-ELECT WALTER L. BIERRING

In all time medical practice has influenced and gone hand in hand with the advancement of medical education. In this changing order you cannot disassociate the one from the other, and with farsighted wisdom you have already instituted through the Council on Medical Education and Hospitals a resurvey of all the medical schools of this country. No doubt this action was determined as the result of careful actuarial and factual studies which tell but the one story—that each year more physicians are being graduated than present society can adequately support.

The time has arrived when this association must recognize its duty to the future welfare of American medicine and attack this problem with all the facilities at its command.

What changes such a resurvey may portend in the present scheme of medical education cannot be foretold, but that it will require courage of a high order to mold and influence the educational forces to meet this challenge no one will deny. It should, therefore, enlist your fullest coöperation and support toward furthering the work of the Council during the coming year.

Your second great problem is concerned with the changing order of medical practice. The rendering of efficient and complete medical service is still largely governed by the individualistic relation of physician to patient.

It is sad to relate that mighty forces have been at work to sow the seeds of discontent in the ranks of organized medicine and to destroy the faith in that leadership which is based on the sacred traditions of sacrifice and devotion to the idealism of medical service.

ABSTRACT OF REPORT OF THE COMMITTEE ON LEGISLATIVE ACTIVITIES

During the preceding national administration the medical profession opposed the continued building of veterans' hospitals which were to be used for the care of veterans who were not disabled during the World War. The need was conceded for veterans' hospitals to care for nervous and mental diseases and govern-

ment hospitals for the care of veterans with advanced tuberculosis were not opposed.

The present administration publicly expressed many views on this subject which were in harmony with the principles adopted by the members of this House of Delegates. The administration evidently recognized that there had been no definite policy established relating to veterans of the late war and that many abuses were the outgrowth of haphazard legislation and Veterans' Bureau regulations.

The need of a balanced budget made necessary an economy program that included a definite policy regarding veterans. We were greatly comforted to find that the present administration, supported by the director of the Veterans' Bureau, contemplated no further building of hospitals and outlined a policy which, as stated before, was in harmony with our views.

In February, 1934, the A. M. A. opposed the Reed amendment, which comprised the four-point program of the American Legion. We were particularly interested in the second point of the Legion program which related to hospitalization and which, as written, would have required only a written statement from the veteran that he was financially unable to pay for needed care. If the law permitted an unsupported statement it might lead to multiplied abuse of hospital and transportation privileges.

Unfortunately, the House of Representatives Bill 6663, the Independent Offices Appropriation Bill, was amended combining two issues, one of which concerned the veterans. This readily became a political measure of profound significance and it was not long until it became a law (March 28, 1934) after having been passed by the House of Representatives and the Senate over the President's veto.

Section 29, of the law reads as follows:

Section 29, Section 6 of Public Law Number 2, Seventy-third Congress, as amended by Public Law Numbered 78, Seventy-third Congress, is hereby amended by adding hereto the following proviso:

"Provided, that any veteran of any war who was not dishonorably discharged, suffering from disability, disease, or defect, who is in need of hospitalization or domiciliary care, and is unable to defray the necessary expense therefor (including transportation to and from Veterans' Administration facility), should be furnished necessary hospitalization or domiciliary care (including transportation) to any Veterans' Administration facility, within the limitations existing in such facilities, irrespective of whether the disability, disease, or defect was due to service. The statement under oath of the applicant on such form as may be prescribed by the Administrator of Veterans' Affairs shall be accepted as sufficient evidence of inability to defray necessary expenses."

This law made several changes. It made statutory certain privileges already granted by executive order. It limited hospitalization to those who were willing to make oath as to their inability to pay for medical care. A very important feature of the new law is the discontinuance of money payments to the veterans while in the hospital.

The American Medical Association has consistently taken the position that the federal government ought not to provide medical, nursing, and hospital services for veterans who are able to provide such services for themselves for injuries and diseases in no way related to military service.

The present law goes beyond anything heretofore contemplated in that it provides for free care for non-

service disability. Under the World War Veterans' Act, 1924, under which the gross abuse of medical, nursing, and hospital privileges for veterans, rich and poor alike, suffering from nonservice diseases and injuries grew up, hospitalization was absolutely and unqualifiedly discretionary with the administration of veterans' affairs, except so far as related to certain named chronic diseases.

The World War Veterans' Act, 1924, section 202, subsection 10, provided:

The Director is further authorized so far as he shall find that existing government facilities permit, to furnish hospitalization and necessary traveling expenses to veterans of any war, military occupation, or military expedition since 1897, not dishonorably discharged without regard to the nature or origin of their disability: Provided, that preference to admission to any government hospital for hospitalization under the provisions of this subdivision shall be given to those veterans who are financially unable to pay for hospitalization and their necessary traveling expenses.

If under the proviso set forth above, any effort was ever made to classify applicants for hospitalization at the expense of the taxpayers generally, in the order of the ability of the applicants to pay for medical, nursing, and hospital services, it was never apparent. As a matter of fact, veterans themselves resented the inquiry into their financial resources and any implication that hospitalization at the expense of the taxpayers generally was given them because of their need and not as a matter of absolute right. It was under this strictly permissive clause in the act of 1924, that the hospital building program of the Veterans' Administration, costing tens of millions of dollars, developed and was carried into effect.

From our experience in the past we hope that the Veterans' Bureau will be able to resist prescribing a form which would liberalize the amended law beyond interpreting the oath to mean that the veteran is in actual need.

We certainly must see that the regulations will make it extremely difficult for a veteran to accept charity if he is able to pay something to his home doctor and community hospital for services required. We should oppose a loose construction of law which would enable a veteran to escape his civic responsibility.

For the present there has been no effort to bring about increased hospital facilities, and without an increase of such facilities the evil effect on the profession will lessen, because many of these hospitals will be diverted into domiciliary homes.

On the other hand, if the oath required by the law, wherein the veteran swears his inability to defray necessary expenses, is treated lightly we shall then be confronted with a serious situation. We should now help to create a sentiment of merited scorn for the veteran who is willing to cheat and accept gratuities from his government which is already burdened with indigence rampant in every direction. This sentiment must be widespread or a new program of hospital building will be launched to meet the demand from sources able to pay for medical care.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

Speaker's address: The committee feels that it is not desirable to abolish the Reference Committee on Rules and Order of Business, since occasions may yet arise in which the necessity of such a committee will be apparent.

The committee recommends that amendments be not adopted to create a Reference Committee on Medical Economics. They believe the problems relative to Medical Economics should be referred to the Reference Committee on Legislation and Public Relations. Believing that this subject comes under the jurisdiction of this committee, they find no authority in the Constitution and By-Laws relative to the creation of a committee on economics.

The committee does not recommend the appointment of a nominating committee, feeling that the present system has been adequate and has been acceptable to the Fellowship.

President's Address: They suggest that the Council on Medical Education and Hospitals consider the feasibility of assisting and encouraging the state medical societies in the establishment of postgraduate courses of instruction.

Relative to the method of procedure regarding expert medical testimony, it is suggested that each state medical society establish cooperation with its state bar association in an effort to correct this abuse.

President-elect's Address: The committee wishes to commend particularly that paragraph of the address of the President-elect in which he said, "It is sad to relate that mighty forces have been at work to sow the seeds of discontent in the ranks of organized medicine and to destroy the faith in that leadership which is based on the sacred traditions of sacrifice and devotion to the idealism of medical service." In times like these, loyalty to the organization and sacrifice of individual prestige to the good of all are necessary for medical advancement.

Federal Emergency Relief Administration: The committee commends the interventions of the Bureau in the development of emergency medical relief service and approves of its acts; your committee recommends that the proper agency of the American Medical Association make an early survey of conditions existing at this time with a view to correcting discrepancies in the service and making possible improvements. The committee would point to the fact that the freedom of choice of physician has been preserved in this service and that for the first time the fact that only the medical profession may properly evaluate medical service has been recognized.

Federal Civil Works Administration: The only aspect of this service of interest now is the delay in adjustment of claims of physicians for services rendered. This delay is due largely to the need of correction of errors in the reports of physicians who rendered the service. The Bureau should continue in touch with the situation and facilitate the proceedings as much as possible.

Hospitalization of Veterans: Recommends that it be approved as such.

Contract Surgeons of the Spanish-American War: In the light of the report, the contract surgeons of the Spanish-American War deserve special consideration. There is no reason why they should not be given the same treatment as others who rendered the same or similar service, particularly the contract nurses.

Report of Committee on Legislative Activities: The committee would impress on the several state societies the necessity of educating the public on the science of medicine and the public welfare. Each member of the House of Delegates should feel it his bounden duty to impress on his state society and county societies the importance of individual efforts in this direction.

Resolutions on State and Federal Relief Committees: The committee recommends the adoption of the resolution, with the observation that not only state relief commissions but county administrations as well should have physicians in their personnel.

Resolution on Free Choice of Physician: The committee finds that the matter referred to is covered by a federal statute (enacted in 1916) and not by rules and regulations. The committee recommends that this resolution be referred to the Board of Trustees for further consideration and suitable action.

Resolutions on Discrimination Against Certain Members of the Medical Profession: The matter was fully covered by the resolution adopted by this House in 1933 as follows:

Resolved, That the American Medical Association in annual session assembled, condemns the persecution of any individual on account of race or religion, by any state or under any flag.

REPORT OF REFERENCE COMMITTEE ON MEDICAL EDUCATION

Paragraphs 1 and 16, dealing with Americans studying in countries other than North America, are particularly worthy of attention in view of the great number desiring to enter the field of medicine. Paragraph 5 shows an astonishing ratio of college students to the whole population, it being in the United States 1 to 125, and varying in foreign countries from 1 to 455 to 1 to 1150. Obviously, this is an economic situation about which this organization can do nothing further than to make the facts known.

The conclusion of the Council, expressed in paragraph 8, that it would be undesirable to abolish examinations by state boards and substitute therefor a medical school diploma is commended. The committee would urge all candidates for licensure to take the examinations of the National Board, since its certificate is recognized by the majority of the state licensing boards.

Paragraph 14 refers to a comprehensive survey of medical education now being undertaken. The report of this activity will be awaited with great interest because of the number of years that have passed and of the great changes that have occurred in educational procedures since the last survey.

It is interesting to note in paragraph 19 that the general hospitals show an average of 155,000 unoccupied beds and that the special hospitals had an average of 61,754 unoccupied beds in 1933. This is forceful testimony of the effects of the depression as well as of excessive hospital facilities.

1. Supplement A of the Council, which formulates essentials for an approved special examining board, is recommended for adoption with the suggestion that definition of special fields be made more elastic, so that, for instance, one contemplating specialization in obstetrics would not be required to take the examination in gynecology also, and *vice versa*; further, that one desiring to specialize in gynecology and abdominal surgery could apply for examination in such fields without, as under the proposed set up, also being required to take the examination in general surgery and obstetrics. The field of internal medicine could be so subdivided as to cover those who restrict their activities to one of its integral parts.

2. The resolution introduced from the Illinois State Medical Association, specifying that the staffs of hospitals designated for intern training should comprise only members in good standing in their local county

medical societies, is referred to the Council on Medical Education and Hospitals with the following comment:

The committee approves the principle of this resolution but feels that its general application at the present time is inadvisable. Paragraph 3 of the report of the Council indicates that approximately 87 per cent of the staffs of the 6437 hospitals of the country are members of the American Medical Association.

3. The resolutions from the Medical Society of the State of New York, referring to the restriction of roentgen-ray practice, both diagnostic and therapeutic, to the direct supervision and control of duly licensed physicians or dentists, are approved.

4. The resolutions introduced from the Missouri State Medical Association, requesting that the American Medical Association shall not approve any institution for any purpose unless and until such institution shall be officially in the approved list of component medical society or societies in the jurisdiction of which such hospital or institution is located or operates, are disapproved.

The first two sections of the report were adopted.

As to section 3 of the report referring to the resolution introduced by G. Henry Mundt, Illinois, be adopted, G. Henry Mundt, moved as a substitute motion that the resolution as introduced by him be adopted.

The report was adopted as a whole with the exception of the third section, which was amended by the adoption of the resolution as introduced by Dr. Mundt. (The amendment was not given.)

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF BOARD OF TRUSTEES AND SECRETARY

Report of Secretary: There has been a very small net loss of Fellows enrolled in the American Medical Association for this year. That this loss should be so small in spite of the continued financial difficulties which have seriously affected the medical profession during the past year shows beyond any doubt the great desire of the bulk of the profession to support organized medicine. This fact might be used by secretaries of state and county medical associations as a stimulus to their efforts to increase membership.

Special Journals: The cost of publication of the special journals exceeded the income by only approximately \$10,000, which represented a marked decrease in the loss sustained in preceding years.

The committee notes with satisfaction that the loss incurred in the publication of *Hygeia* amounted to only \$30,000. The indirect good done to the profession by this publication may not be generally appreciated, but it is worthy of our most active support. It is of interest to note that only 14,000 physicians in the United States were subscribers to *Hygeia* last year. A plea should be made that every physician subscribe to at least one copy, which might be found in his waiting room if not in his library.

Quarterly Cumulative Index Medicus: The committee recommends the continued publication of the *Quarterly Cumulative Index Medicus* and is well aware of the good it is doing. The loss incurred in its publication was approximately \$44,000 in the past year. Such a publication for the advancement of scientific medicine might well be considered worthy of endowment by those interested in furthering medical progress.

Council on Pharmacy and Chemistry: In view of the current economic stress, the reference committee suggests the possibility of a joint study by the Council on Pharmacy and Chemistry and the Bureau of Medical Economics of the costs of proprietary and other

remedies employed by the medical profession in the diagnosis and treatment of disease. In many instances the exorbitant price has been a serious burden on the patient.

Council on Physical Therapy: The Council has been of great help to the medical profession in preventing the exploitation of physical methods and of apparatus that are of doubtful value. Its efforts to educate the profession by means of exhibits and demonstrations as well as in regulating and controlling manufacturers are of fundamental importance and deserve great praise. It is to be hoped that the state associations will take full advantage of the various opportunities offered by the Council to augment their knowledge of physical therapy.

Bureau of Exhibits: As a result of the stimulus given by scientific exhibits at the Association meetings, similar exhibits have been developed at the meetings of several state associations.

Committee on Foods: Its value as a protection to public health is generally realized and it is rapidly becoming one of the more important activities of the Association.

Radio Broadcasting: The far-reaching influence of radio broadcasting on medical subjects on public thought is worthy of continued commendation and unlimited support. The committee would condemn the increased broadcasting of unestablished remedies directly to the public and urge further activities on the part of the Board of Trustees leading to some type of control over this evil.

Field Secretary: Attention has been repeatedly called by the House of Delegates to the desirability of bringing the central organization of the Association in closer contact with the various activities of the constituent societies. Committees of previous years believed that closer coöperation between the state societies and representatives from the Association headquarters would be of mutual benefit. At the meeting of last year your committee asked that the Board of Trustees consider the advisability of appointing a field secretary.

The committee appreciates the decision of the Board of Trustees to the effect that it would be inadvisable to take final action in the appointment of a field secretary at the present time is based on careful consideration.

REPORT OF THE JUDICIAL COUNCIL

A resolution was introduced calling attention to a recent action by the Medical Service Board of the American College of Surgeons approved by its Board of Regents, advocating and publicizing a procedure for furnishing medical and hospital care for certain classes of the population. No consideration appears to have been given to policies or procedure previously adopted by the American Medical Association, of which the Board of Regents are members. The American Medical Association is the one organization representing the entire body of physicians constituting the medical profession and by virtue of that fact is the only organization qualified to speak for the varying interests and ideas of the profession as a whole.

Recurring proposals concerning the entire practice of medicine from small sections of the profession without due regard to the policies of the entire profession as represented by the American Medical Association when presented to the public through other channels than the representative body are confusing to the public mind, are harmful to the profession and give aid and assistance to those bodies and individuals attempting to revolutionize medical practice.

The purport of the resolution is as follows:

That the House of Delegates of the American Medical Association express its condemnation of such tactics and of this apparent attempt of the Board of Regents of the American College of Surgeons to dominate and control the nature of medical practice; and that the House of Delegates request the Board of Trustees of the American Medical Association and the Judicial Council to ask the Board of Regents of the American College of Surgeons, who are themselves members of the American Medical Association, to explain the reasons for their action and to justify the attempt by this small group within a specialistic organization to legislate for all the medical profession of this country, truly represented only by the American Medical Association.

REPORT OF REFERENCE COMMITTEE ON MEDICAL ECONOMICS

(See *Journal A. M. A.*, June 30, 1934, p. 2195.)

REPORT OF SPECIAL COMMITTEE

There are manifestations of unrest in relationship to the economic situation among some of the component and constituent bodies of this association. On several occasions, communications have been made to the Board of Trustees and to the headquarter's office, urging a change in the activities of the organization which would in effect demand a departure from the policies set down by this House of Delegates during the past 18 years. The opportunity is offered for an extensive discussion of the situation as it confronts the medical profession only. Only the House of Delegates has the power to define the policies that are to guide this Association in the coming years.

The delegates were given a pamphlet entitled "Sickness Insurance Problems in the United States" as presented by the Board of Trustees.

The committee does not recommend any plan but has abstracted from the pamphlet the following principles and suggests that they be followed by all constituent bodies of the American Medical Association as bases for the conduct of any social experiments that may be contemplated by them:

1. All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.
2. No third party should be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.
3. Patients must have absolute freedom to choose a duly qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.
4. The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.
5. All medical aspects of all institutions involved in the medical service should be under professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institu-

tions. Their value depends on their operation according to medical standards.

6. However the cost of medical service may be distributed, the immediate cost should be borne by the patient if able to pay at the time the service is rendered.

7. Medical service must have no connection with any cash benefits.

8. Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

9. Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

10. There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

If it is determined in a community that some experiment to change or improve the method of administering medical service is desirable, observance of these principles will remove many of the "disturbing influences" from such an experiment. In all such experiments, attention should be sharply focused on the quality of medical service.

The report of the committee was adopted.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

On resolution introduced by Dr. Van der Veer at the request of the House of Delegates of The Medical Society of the State of New York pertaining to administration of anesthetics, which was recommitted for further action, the committee is of the opinion that, owing to the varying conditions which prevail in urban and rural districts, the matter in question deserves more careful study and survey than this committee can give at this time, and recommends that this resolution be referred to the Council on Medical Education and Hospitals for further study.

REPORT OF THE JUDICIAL COUNCIL

A resolution to provide that the American Medical Association adopt policies by which it shall not approve any hospital or other institution for any purpose unless and until it has been officially approved by the medical society of the county in which it is located.

The terms of this resolution are so broad and definite that the Judicial Council believes them to be impractical. It is also of the opinion that the question of approval or disapproval of the hospitals, or other institutions of the country should be based on a uniform standard and appraisal rather than on such varying standards as would be the case if the appraisal were the function of the local medical society. This opinion is not changed by a provision in the resolution granting to a disapproved institution the right of appeal to the American Medical Association.

The Judicial Council disapproves the resolution.

Resolution presented which asks that renewed attention and emphasis be placed on an action taken by the House of Delegates in 1924.

The Judicial Council recommends its adoption. The resolution is to the effect that there are occasional evidences of advertising, publicity, and propaganda by certain large clinics in violation of the proper ethical and professional restrictions placed on individual physicians; therefore, attention of the county medical societies be called and emphasis again be placed on the

following declaration of policy and principle incorporated in resolutions adopted by this body in 1924:

1. Publicity by clinics, hospitals, sanatoriums, and other semipublic medical institutions as to quality of work done implies unusual and exceptional ability and efficiency on the part of their professional staffs and, therefore, is advertising of the medical men concerned. This type of advertising distinctly savors of quackery and is unethical.

2. Publicity by any such institution stating or implying that by reason of its exceptionally fine equipment and material resources, it is able to, or does, give the public better medical service than similar institutions are able or willing to render, is advertising for purposes of self-aggrandizement. Statements of this type are frequently exaggerated and misleading, and are detrimental to the best interests of the public, of the institution concerned, and of true medical progress. Publicity of this kind is unethical.

Recommendation adopted.

REPORT OF THE REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

All resolutions pertaining to Birth Control were defeated.

REPORT OF THE REFERENCE COMMITTEE ON REAPPORTIONMENT OF DELEGATES

The present apportionment of delegates is on the basis of one delegate for each 800 members or fraction thereof. Each constituent association is represented by at least one delegate irrespective of the number of members.

The By-Laws specifically provide that the total membership of the House of Delegates shall not exceed 175. The total membership of the Association on April 1, as recorded in the office of the Secretary, was 98,041.

An apportionment on the basis of one delegate for each 750 members would produce a total of 177 delegates, two more than are permitted by the By-Laws.

On the basis of one delegate for each 775 members, the total membership of the House would be 172, which is one less than the present membership. On this basis, Pennsylvania and Texas would each gain one delegate, while Alabama, Illinois, and North Carolina would each lose one delegate.

On the basis of one delegate for each 800 members, the total membership of the House would be 168. On this basis Alabama, Illinois, North Carolina, Oklahoma, and Tennessee would each lose a delegate.

The committee recommends that the apportionment of delegates for the next three years be made on the basis of one delegate for each 775 members or fraction thereof. Each state medical association, irrespective of the number of members, no matter how small its membership may be, is entitled to one delegate. On this basis, the membership of the House will be 172. This will give Pennsylvania 11 delegates.

REPORT FROM THE SECTION ON NERVOUS AND MENTAL DISEASES

A committee appointed by the Section on Nervous and Mental Diseases last year met with similar committees of the American Psychiatric Association and the American Neurological Association at a preliminary meeting in New York in December, 1933, to consider the formation of a board of examiners in psychiatry and neurology for the purpose of certifying physicians in these respective branches of medicine, the governing board to be the American Board of Psychiatry and

Neurology. It was the consensus that there should be equal representatives of neurology and psychiatry on the board of examiners and that the board should be composed of 4 members from the American Psychiatric Association, 4 members from the American Neurologic Association, and 2 psychiatrists and 2 neurologists appointed by the Section on Nervous and Mental Diseases of the American Medical Association. It was also the consensus of the meeting that there should be drawn up by the Board of Psychiatry and Neurology separate qualifications for psychiatrists and for neurologists and that there should be separate examinations for applicants wishing to be certified in one or both of these specialties.

The American Psychiatric Association and the American Neurological Association, through their respective councils, later approved the formation of the American Board of Psychiatry and Neurology.

As a result of these various deliberations on the part of the special committee appointed last year from the Section on Nervous and Mental Diseases, the Committee from the American Psychiatric Association and the committee from the American Neurological Association, the following recommendations were adopted by the Section on Nervous and Mental Diseases:

1. That the Section on Nervous and Mental Diseases of the American Medical Association cooperate with the American Psychiatric Association and the American Neurological Association in the establishment of the American Board of Psychiatry and Neurology.

2. That 4 members of the section, 2 neurologists and 2 psychiatrists, be elected to serve on the board for terms of from 1 to 4 years; that each year hereafter a member be elected to take the place of the retiring member, neurology and psychiatry being always equally represented.

RESOLUTIONS REGISTERING DISAPPROVAL OF EMPLOYMENT OF OPTOMETRISTS BY HOSPITALS, FROM THE SECTION ON OPHTHALMOLOGY

The resolutions were adopted.

ELECTION OF OFFICERS

President-elect, James S. McLester, Birmingham, Ala.; vice-president, George Reinle, Oakland, Calif.; secretary, Olin West, reelected; treasurer, Herman L. Kretschmer, Chicago, reelected; speaker, House of Delegates, F. C. Warnshuis, Grand Rapids, Mich., reelected; vice-speaker, Nathan B. VanEtten, New York City, reelected; trustees, Roger I. Lee, Boston; Allen H. Bunce, Atlanta, Ga., reelected.

The 1935 Annual Session will be held at Atlantic City, N. J.

The American Medical Golf Association tournament had its thrills. There were 184 entrants battling for 70 prizes valued at \$2500. John P. Loudon, of Yakima, Wash., with a card of 152 for 36 holes was the winner; he was the champion in 1929 and 1930. G. R. Love, Oconomowoc, Wis., was runner-up with 158. Mark Bach, Milwaukee, Wis., the defending champion, was fourth with 162.

The president of the Woman's Auxiliary to the A. M. A. is Mrs. Robert Tomlinson, Wilmington, Del., and the president-elect is Mrs. Rogers N. Herbert, Nashville, Tenn.

At the annual meeting of the Medical Women's National Association, held in Cleveland, O., June, 1934, Lena K. Sadler, Chicago, was installed as president. The Association was organized in 1914, and all the former presidents are still living.

Dr. Sadler in her address said:

The association, which enrolls nearly 1000 women doctors, has raised and spent \$4,000,000 on Near East relief, chiefly in establishing 136 hospitals and dispensaries. Its war relief committee maintains and operates a traveling dispensary in the mountains of the South, aided by county funds there. It lectures, gives recipes, explains vaccination, and strives generally to reduce hookworm and pellagra among mountaineers.

The association has a student fund of \$13,000 to help aspiring young women enter the profession, and it is raising more money for this purpose.

This country today has 6800 women physicians. It had none until just before the Civil War. Emily Blackwell tried in 1847 to be admitted to 13 medical schools and was turned away. Medicine had no place for a woman, educators told her. She was matriculated finally at Geneva (N. Y.) Medical College, was graduated in 1849 and then went to Paris for further study. She was advised to go dressed as a man to be sure of getting in.

But she was too much of a woman to stoop to that. She was forced to live in the midwives' home of one of the Paris maternity hospitals. The midwives were forbidden to leave the institution at all for the year they were training. She was granted permission to leave, which was a great concession by the authorities. She finally returned to this country and practiced in New York until late in the century. Her pioneering has been the example of America's women physicians.

Dr. Bertha Van Hoosen of Chicago stated that women are ideally suited for country doctors, and believes that the small town offers opportunities to women physicians. She stated:

Of all approved hospitals in the country only one-sixth will take women as interns.

They give every kind of excuse, from no accommodations for women to the fact that men don't like to have women around. In few cases is there any technical or scientific reason for declining to take women as interns.

THE PHARMACOPOEIA, THE CHILDREN, AND THEIR DRUGS

One of the gratifying events that marked the 85th annual session of the House of Delegates of the American Medical Association, held in Cleveland, was the adoption of the resolution sponsored by one of our Pennsylvania delegates, Arthur C. Morgan and seconded by Isaac A. Abt, of Chicago. Later in the week Dr. Abt presented the resolution at the business meeting of the Section on Pediatrics and it was unanimously approved.

The resolution is as follows:

WHEREAS, Therapeutics in diseases of infants and children constitutes an important and much neglected phase of pediatric practice, and

WHEREAS, Those remedial agents prescribed by the profession, official in the United States *Pharmacopœia*

X and *National Formulary V*, are employed extensively in treating disease in infants and children, and

WHEREAS, The acceptance of new drugs and the deletion of remedies at present official in the *Pharmacopæia* and *National Formulary* concerns pediatricians as well as the general practitioner who treats infants and children, and

WHEREAS, There is a strong tendency to undermine official remedies, including those of pediatric importance and therapeutic usefulness by proprietary remedies through clever advertising, exploitation and salesmanship, therefore be it

Resolved, That the Philadelphia Pediatric Society, take the initiative in urging The American Academy of Pediatrics, The American Pediatric Society, and the Pediatric Section of the American Medical Association through its proper channels to suggest to the officers of The Pharmacopœial Convention 1930 and to the officers of The National Formulary Convention of 1930, the appointment of a representative group of pediatricians whose function shall be to suggest and advise those remedial agents (drugs and preparations of pediatric importance and therapeutic necessity) to be deleted, retained, and added to both the *Pharmacopæia* and *National Formulary*, who will coöperate with all present committees of the *Pharmacopæia* and *National Formulary* in furthering the work for revision, be it further

Resolved, That the suggestion of average doses for the periods of infancy, preschool, and school ages be included in both texts as has been carried out previously with Pharmacopœial and National Formulary remedies in adults, and that application be filed with The Committee of Credentials of the Pharmacopœial Convention and the National Formulary for a permanent seat as delegates to the Convention for 1940.

The important nature of this practical measure will be appreciated not only by pediatricists but also by that large group of general practitioners who treat infants and children. The resolution is intended to overcome many of the inconsistencies and difficulties heretofore encountered in the teaching and practice of pediatric therapeutics. As one authority stated "the adoption of the resolution of the Philadelphia Pediatric Society marks a new era in pediatrics and one which has been needed for a long time."

From the standpoint of pediatric teaching, medical students should profit by this timely measure. One of the faults with our present teaching of pediatrics has been the inadequate instruction in therapeutics which concerns infancy and childhood. It is a fact that interns as well as many physicians in active practice are inadequately prepared to minister to the needs of the sick infant and child. Furthermore, this indifference on the part of many of the medical schools in training students in pediatric therapeutics has resulted in an insufficient knowledge of those therapeutic remedies of pediatric importance and necessity. It has been estimated that less than 1 per cent of all practitioners possess a copy of the *pharmacopæia*. This assumption was corroborated at a recent meeting of the Philadelphia Pediatric Society when the majority of the members present admitted never having seen a *Pharmacopæia* or *National Formulary*. Prescription writing is rapidly falling into disuse—in fact, it might be said that the writing of a prescription which marked the ability of our forefathers as excellent clinicians, is today rapidly becoming a lost art. The subject of incompatibility seldom receives the consideration that it should in most of our medical colleges. A well known

authority and dean of pharmacy schools in this country has sounded a note of signal importance along this line. He reflects that the training of medical students has been inadequate from the standpoint of *materia medica* and pharmacodynamics. He states "the average medical graduate today is so poorly trained in this field of medicine that he does not know whether bromide of soda is a solid, a liquid, or a gas." Probably the best proof that students in pediatrics are not receiving adequate instruction in pediatric therapeutics is by a heart-to-heart talk with any number of recent graduates. Recently, one pediatrician told of a brilliant young scholar who gave a child age 5, two grains of citrate of potassium three times a day as an effective alkalinizer. Another example is a postgraduate student who when asked to state the dose of paregoric for an infant age 1 year as a mild cough sedative answered one teaspoonful. These examples can be multiplied manyfold. Whither are we headed? Are the teachers in pediatrics giving this problem serious thought? If so, what are they doing to overcome these difficulties? Are they doing all they can to combat therapeutic nihilism and restore the practitioner's confidence in the use of good, standard and scientific weapons of defense in the prevention and management of disease? It is believed that this long felt need will be given considerable thought by the committee representing pediatricists on the United States Pharmacopœia and National Formulary.

The general practitioner who treats infants and children looks upon the child under his care as a miniature adult and not in a more comprehensive way which takes into consideration all aspects of child life and development. Medication is far too often overprescribed. Many sick infants and children are overdosed. Frequently drugs are ordered with a hit or miss objective in mind. These conditions have in a large measure been responsible for therapeutic nihilism.

Therapeutics as a whole, particularly pediatric therapeutics has suffered tremendously because of this lack of information on the part of the profession. Ulterior motives, not at all uncommon among proprietary pharmaceutical concerns, have made inroads at the expense of official products. This situation is appalling particularly to recent graduates who because of a lack of therapeutic training are apt to discriminate against useful drugs and therefore frequently fall prey to the dictatorship and clever salesmanship of drug house representatives.

Posology has been another bugbear for the student of pediatrics. The average graduate and many practicing physicians who treat infants and children know little or nothing about this aspect of pediatrics. Based upon the rule of Young instead of scientific reasoning, *i.e.*, body weight, doses of drugs for various age group periods have been baffling and chaotic. The tedious arithmetical calculation necessary for computing doses by many of the standard rules for infants and children are altogether impractical for everyday use.

With these thoughts in mind the Philadelphia Pediatric Society, aware of the present trend and potential dangers, has adopted a comprehensive plan, which was unanimously endorsed after a careful survey. The committee in charge communicated with all outstanding pediatricists throughout the states. Letters were also mailed to all local, regional, state, and national pediatric societies. Favorable replies and comments were received from practically all pediatricists and societies strongly endorsing the movement. It was the consensus of opinion that pediatricists should be represented on

both U. S. P. and N. F. committees for revision. An early function of the tentatively appointed committee representing pediatricists on the U. S. P. and N. F. will be to contact all pediatricists throughout the country and in this way determine those drugs which are regarded by them as useful and important in the practice of pediatrics. This information will be conveyed to the respective revision committees. It is hoped that such a plan of procedure will serve to give the profession a better understanding of the pediatricists' needs and will also stimulate greater interest in the use of pharmacopoeial and national formulary remedies.

A second function of this committee will be to determine the extent of therapeutic teaching in pediatrics and possibly standardize a method for this approach. Advantages to be derived from the pediatric resolution may be summarized as follows:

1. It will serve to rid pediatric therapeutics of nihilism by bringing before the profession those remedial agents (chemicals and drugs) which are of pediatric importance and necessity.

2. Aim to eliminate posologic chaos by adopting standards for age periods common to average dosage with adults.

3. Create a greater interest in the use of therapeutic remedies of reputed scientific and pediatric importance by circularizing members of the pediatric profession and requesting opinions as to the value of certain standard drugs and preparations in use.

4. Restore confidence in the use of Pharmacopoeial and National Formulary remedies by bringing these to the constant attention of practitioners who treat infants and children and in this way largely curtail the use of commercial exploitation of proprietary preparations when official preparations can be used.

5. Bring to a closer and mutual understanding pharmacist and physician.

6. Render adequate and necessary instruction in the science of pediatric therapeutics as part of the pediatric curriculum of medical schools thus tending to eliminate the use of proprietary drugs instead of official drugs.

7. Approve and adopt those measures and drugs of scientific value and importance in pediatric therapeutics and recommend their recognition by the U. S. P. and N. F.

8. Acceptance of newer drugs and preparations, retention and deletion of official drugs and preparations in the U. S. P. and N. F. from decade to decade.

The Board of Directors and members of the Philadelphia Pediatric Society are to be congratulated upon their foresightedness and pioneer movement. We look forward to this measure as a timely step in the right direction for child welfare and child happiness.

COMMENTS AND EXCERPTS

Science and Research

Dr. Milton Rivers, of Manhattan's Rockefeller Institute recently announced at Yale Medical School, the development of a vaccine for psittacosis. At the laboratory of Dr. Rivers, white mice, monkeys, and finally seven laboratory assistants were vaccinated and proved immune to psittacosis.

Drs. Leslie T. Webster and George L. Fite, of the Rockefeller Institute for Medical Research, reported at the Toronto meeting of the American Association of Pathologists and Bacteriologists, a method of producing immunity against encephalitis. Although the research seems to be directed to acquiring immunity

in human cases, thus far immunity has been obtained within 7 days in mice only. The method consists in injecting a small amount of the causative virus into some other part of the body than the nose, which is its natural portal of entry to the brain along the nerves of smell. For instance, they injected 1000 lethal doses of the virus under the skin or into the abdomen of the mice, whence it traveled along a route relatively insensitive to the infection. These mice did not develop encephalitis, but within 7 days they were found to be immune to 1000 intranasal or 1,000,000 intracerebral lethal doses. The immunity was found to last for 5 weeks in the mice.

Drs. Webster and Fite have developed a test by which various types of virus that produce encephalitis may be distinguished. They reported that the type prevalent in St. Louis during the summer of 1933 was similar to that which occurred in Kansas City and New York City during the same summer, and in Philadelphia in the summer of 1932. It was different, however, from the type which occurred in Japan several years ago.

At the recent meeting of the American Chemical Society, Dr. Franz C. Schmelkes and Henry C. Marks described a new chlorine-containing antiseptic which is very soluble in water and most other solvents. This new antiseptic has been named azochloramid. This compound is claimed to be stable, not easily destroyed by heat, and especially useful as an antiseptic for use in the presence of organic material that usually seizes upon chlorine-containing compounds.

At a recent meeting of the American Association of Anatomists, Drs. George and Robert Crile, of the Cleveland Clinic, reported that the adrenal glands are relatively larger in wild animals than in domestic animals or in man. After a study of 600 wild and domestic animals, it was found that the adrenal glands, which mobilize the body's forces if danger suddenly threatens, weigh 2 or 3 times as much as the thyroid gland in animals living in the wild state—in which their survival depends on sudden outbursts of energy in fight or flight. In man, whose energy must be kept at a constant high level, the thyroid gland weighs about twice as much as the adrenals.

The hormone of the adrenal gland cortex, cortin, has been obtained in pure crystalline form and its chemical composition discovered by Dr. E. C. Kendall, of the Mayo Foundation, Rochester, Minn. This hormone, necessary in the treatment of Addison's disease, is very expensive because of the scarcity of the material and the cost of making the extracts from the animal glands. With the discovery of the chemical structure of the hormone, it may be possible to prepare the hormone synthetically.

Cyclopropane, a gaseous anesthetic which does not produce nausea and is relatively safe from explosion, has been prepared at a very much lowered cost from certain constituents of natural gas. At the meeting of the American Chemical Society, Drs. H. B. Hass, E. T. McBee, and G. E. Hinds, of Purdue University, reported the new process. This new anesthetic is becoming popular in some hospitals.

Examples of photographs taken through the skin by means of infra-red rays of the spectrum were displayed by the Eastman Kodak Company at the meeting of the Western New York Society of Radiographers. By aid of these photographs, physicians will be helped in detecting varicose veins and obstructed veins; and watch the effect of treatment by taking a series of these

photographs during the course of treatment. Since the skin is somewhat transparent to infra-red rays, these rays penetrate the skin and the tissues just beneath it, are scattered, and reflected back to the lens of the camera and the image recorded on the infra-red sensitive photographic plates. Since blood vessels near the surface of the skin decrease the intensity of the reflected rays as compared with the rays reflected from those parts in which there are no blood vessels, the superficial veins show up in contrast to the rest of the flesh.

At the meeting of the National Academy of Sciences, Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research, presented evidence that animals other than man do not carry poliomyelitis paralysis, and that the disease is not acquired by swallowing the causative virus with food or drink. Dr. Flexner's studies show that the virus or germ of poliomyelitis cannot penetrate the lining of the stomach or digestive tract; neither can it penetrate the unbroken skin. It produces the disease only by reaching the central nervous system by way of exposed nerves of smell in the nose. The virus is confined to the human host and passes from individual to individual in the secretions of the nose and throat.

MEDICAL ECONOMICS

Free Work of Physicians' Valued at a Million Dollars a Day.—The *Clearfield County Medical Society Bulletin* recently quotes the following article from the *Chicago Tribune* on the free work of physicians:

As his contribution to charity, the average American doctor works one day out of every four for nothing, according to a recent nationwide survey.

Furthermore, under the present economic conditions, he is unable to collect for another quarter of his working hours. Thus half the physician's time is devoted to free work, the grand total reaching a figure of more than \$1,000,000 a day.

"How much charity work do you do?" A postcard questionnaire was answered by 5823 doctors in every section of the United States.

Careful tabulation of the figures given on the return postcards revealed that the average doctor works fifty weeks a year, sixty-two hours per week. He devotes a little over 15 hours per week, or 24.58 per cent of his total working, to medical services for which he expects no compensation.

Add to this the additional quarter of his time for which he charges but cannot collect, and it is apparent that the doctor is in a class by himself—he works half his time for nothing.

In nondepression years the American medical profession collects a total of about \$750,000,000 annually. This means, therefore, that at present the doctors of this country are contributing to the general public professional services worth approximately \$375,000,000 a year or more than \$1,000,000 a day, half of it voluntary and half of it involuntary charity.

Free Medical Care for Poor Under Fire.—To quote an article published in a recent issue of *The United States News*: Fear of state medicine or of public control of the medical profession are grounds for opposition offered by physicians and medical organizations in a number of states to programs for providing medical care from public funds as relief measures. This situation is reported by the American Public Welfare Association, which is coöperating with the Julius Rosenwald Fund in a survey of this phase of public relief.

The Federal Emergency Relief Administration inaugurated the Federal relief plan last year; already millions on the relief rolls are receiving free care. In 21 states the FERA plan has been adopted for caring for teeth, eyes, and general health; 10 other states have continued their own systems of medical care for the poor.

Delays in the work, caused by conflicts between relief authorities and the medical profession, are reported from 9 states. In 2 of these states, coöperation on the basis of a payment plan has been refused on the grounds set forth. Taxpayers also are frequently resistant of making the community responsible for health care.

Incoming President's Remarks to the House of Delegates.—The following is an abstract of remarks made by Dr. Arthur J. Bedell, of the Medical Society of the State of New York.

The sessions of the House of Delegates will give all an opportunity to express themselves and in the end he trusts that the majority will rule against further experimentation in the practice of medicine. There is no question in my mind but that the socialization of medicine eventually means the death of the patient.

There are no reasons why the profession of medicine should change its established order because of a temporary depression from which we will emerge if only given a chance. The basic underlying economic unit of our state is the home. The relations of this group have not changed, nor have the essential elements of religious life. Why then should the contacts with the sacredness of home medical service be altered.

The voices of the propagandists have been heard throughout the land. Their words are the same and their thoughts identical. There is a constant repetition of the need of some plan; that medicine must care for those who are sick; the doctors must be more equitably distributed; and hospital and specialized service must be more readily accessible. These futile arguments are advanced at a time when a patient can reach a physician's office or have the physician come to his home more quickly than at any time in the history of this country.

He cannot see the logic of a program which is not based on the economic satisfaction of those who are to work under it. Nor that the appointment of another committee in their already top-heavy organization will assist in any material way to solve the national economic riddle or the problems connected with the practice of medicine which are, as all broad-minded observers agree, mainly dependent upon unemployment.

There is no doubt in his mind that we will do more harm than good by aligning ourselves with the forces bent upon the destruction of the present system of private practice.

Regardless of any printed statement for or against the inauguration of a new system, the fact is incontrovertible that the main object of group medicine is to tie the employee to the employer.

He urges avoidance of entangling alliances and feels certain that you will not prove false to your true selves or to your constituency by accepting any resolution or procedure presented in any guise whatsoever which will change the order of the established practice until the proposed change has been thoroughly investigated and proved by actual operation to be worthy of your acceptance.

Let us constantly guard against the insidious ingrowth of socialized service of any type. Let us scrutinize every group insurance and hospitalization scheme so as to be convinced that the patient's welfare is protected and that the sick of the state are not subjected

to exploitation. Incidentally do not forget that as a result of the national government's extension and too expensive private hospital construction so unfortunately advanced by propagandists, the medical profession may be further victimized.

Whenever you come in contact with those who are advocating a new system, inquire into the personal relationship of the proponent to the proposed measure to see why he is trying to foist a method of unsatisfactory, unknown, unreliable medical service upon the unsuspecting and gullible public.

Very few physicians would be content mechanically to dole out pills and give advice, and even more mechanically live the life of a hired servant. There is something more noble, more exalted, more satisfying, and more worthy of the true physician than just the mere serving of time for a pittance.

The State Society has too many committees. They are too loosely connected to the parent organization, usurp too many functions, publish too many opinions which have not been passed upon by the legislative bodies of the Society and are tending to retard the natural progress, for no emergency is sufficiently acute to require an immediate decision by one man or one committee.

There should be a change in the personnel of all committees of this Society by the infusion of new blood; that is, one of the older members of the committee should be displaced by a new one. In this way we will be educating the younger men in the Society to take their part in its trained interest. He, therefore, recommended to the House of Delegates that they pass a resolution to this effect.

Gentlemen of the house, it should be clearly stated by you that no member of a committee should be permitted to address any organization on a subject under consideration by his committee without the consent of the Executive Committee.

He further suggested that each delegate act as a direct personal inspiration to his County Society in stimulating a greater interest in the State Journal. That a digest of the County Society activities be sent to the editor, that any gross infringement of law be reported, and that in every way the County Society be impressed with the necessity of maintaining a superior journal.—*N. Y. State J. M., June 1, 1934.*

To the State Society Membership

A personal communication to the membership from President C. L. Cummer, of the Ohio State Medical Society, quoted from their State Society Journal, states that it is becoming increasingly evident that every member of medical organization has an important rôle to play in the evercontinuing campaign for the protection of public health and the ideals of scientific medicine.

At each session of the State Legislature there are introduced many bills of potentially great importance to us as a profession. The gradual extension of government into all fields of activity has multiplied our problems in carrying out one of the important functions of our State Association, namely: To encourage the enactment and enforcement of just medical and public health laws and to arouse public sentiment against those things detrimental to public health and scientific medicine.

In an abstract way, some members of our association expect it to present to the members of the legislature and other public officials by some method—perhaps not clearly visualized—the cause of medicine, interpreting to them the modern and scientific point of view about measures of vital concern to our profession and requesting

that the interests of the public as well as the profession be protected. Apparently, it has never occurred to some of our members that success in such matters cannot be attained by waving a magic wand or through the activities of a comparatively few willing and alert colleagues.

Close observation of public action, impending legislation, and the activities of state bureaus and commissions, are truly an urgent duty of the State Association and one which must be discharged faithfully in the public interest. The leadership in this important function has been delegated by the Ohio State Medical Society to their Committee on Public Policy and the staff of their state headquarters' office. Many members might be inadequately and inaccurately informed about public activities affecting public health, scientific medicine, and medical practice were these not followed from their incipency. Their central organization can and does follow developments effectively, studying especially the implications and possible effects of social and medical measures and regulations. It frequently presents the ideas of organized medicine to legislators and legislative committees, state officials, and state commissions and bureaus.

It should be remembered, however, that after all, their group is only one of many which has definite ideas about debatable questions and their ideas often are in conflict with those of other groups. Moreover, the State Society has no legislative power or executive authority, a fact which some of their members do not seem to realize. In the last analysis, this authority rests with the people whose representatives sit in the State House. The voices to which legislators and other public officials listen are the voices of their constituents.

It is obvious, therefore, that the efforts of their headquarters' office and Committee on Public Policy, which are the central nervous system of their organization, should be translated into action by each and every component society in the state.

Physicians must exercise their rights of citizenship not only for the public good but in the interest of themselves and their profession: First, by ascertaining the views of candidates for public office before nomination and election; second, by quietly and unobtrusively aiding in the nomination and election of those who are well qualified and at least open-minded about medical questions; and, finally, by seeing that their representatives are kept constantly informed of the correct attitude toward medical and health problems.

This means vigorous and unflagging effort, based on accurate knowledge and guided by diplomacy. The direction of such local effort should be entrusted to the legislative committeeman (or committee) in each county society. The committeeman is the liaison officer between the headquarters and the front. To him and to the county society officers is sent information from their headquarters office, often confidential in nature. The significant points in bulletins from the state headquarters office should be communicated to the membership either at regular meetings or by some other effective method. This demands prompt and effective action. Delay on the part of local legislative committeemen until an important medical measure is ready for final vote in the legislative chambers before presenting the views of scientific medicine to their local legislators is the height of futility.

The Committee on Public Policy and their headquarters staff are given the responsibility of planning the strategy in their efforts and activities in legislative and governmental affairs. While they may call the plays, they cannot carry the ball all the time. Consistent

teamwork on the part of the coördinated societies and individual members is absolutely essential for success. Only by coördinated and concerted action can the interest of public health, scientific medicine, and of the profession be protected.

Dr. Cummer sincerely hopes that though the component societies which have coöperated in the past in this vital part of their program redouble their efforts, that those which have been negligent or half-hearted, reorganize this phase of their activities under an alert and diplomatic committeeman or committees, and that after this is done, every local member support his committeeman, or committeemen, by personal and individual effort. Their legislative and governmental contacts and activities can be made even more effective than they are at the present time if greater initiative and energy is expanded by every local unit of their State Association. (The underlying principles here enunciated are applicable to all state medical societies.—*Editor.*)

Concerning Socialized Medicine

In his presidential address delivered at the annual meeting of the Medical Society of the State of New York, held May 15, 1934, Frederick H. Flaherty, of Syracuse, N. Y., stressed the following facts:

At present we are facing many important problems, the solution of which will demand study, careful planning and much hard work. The medical colleges are turning out more physicians than can be used in the present state of society. The incomes of the masses have been lowered to such a level that the average physician in actual practice is not receiving more than half the income received in 1929. Laymen, social workers, health workers, politicians, department store owners, would-be reformers, economists, socialists, anti-vivisectionists, are all trying to change the present method of medical care so that it will concur with their ideas.

It is quite clear that we are opposed to so-called socialized medicine. It is quite evident that the term "socialized medicine" is a red flag to many physicians. It is quite true that we have state medicine in many forms which are accepted as a matter of course and no one seems to get excited about it. The care of the insane by the state, which we have had for the past 100 years, is a definite form of state medicine. The state laboratory for the diagnosis and treatment of malignant diseases is truly state medicine. The manufacture and distribution of various vaccines, toxoids, and many other biologic preparations, are state medicine. The hospitalizing of the indigent patient, paid for by the city, county, or state, is state medicine. The building of county and state hospitals for the care of tuberculosis is state medicine. The hospitalizing and treating of our veterans in government hospitals is state medicine. To what form of state medicine is it that the practicing physician or doctor objects?

The family physician should be protected in all such endeavors that his training and education have prepared him for in the diagnosis and care of the sick and injured. He should be permitted to be in charge of and supervise all health examinations not only of school children but of adults, the administering of vaccines, toxoids, and other biologic remedies. If we are to continue the practice of medicine as now constituted—and by this he means that the family physician will be retained as such to administer to the sick and injured, that he will be able to retain his patients as individuals—the formation of groups, either by lodges,

insurance companies, or other forms of group practice, should be discouraged.

The depression has had one beneficial reaction on the practice of medicine. It has called the attention of the authorities to the fact that the ill individual, who is indigent or near indigent, is entitled to proper medical care as other necessities such as food, clothing, and shelter and that they are obligated to pay for the medical care of the indigent as well as for their food, clothing, and shelter. It is very apparent, as written in the present Welfare Law and its auxiliary, the TERA, that for home relief the physician must be paid. This can be done by one of two methods: The Welfare Officer can authorize the family physician to care for, to operate upon, and to deliver pregnant mothers at their homes and at times in the hospital for a reasonable modified fee. This is very important. They cannot and will not pay unreasonable fees. If any individual physician in the welfare district attempts to graft, pad his bill, or charge unreasonable fees, the Welfare Commission has the authority to appoint a physician or physicians to do all the welfare work in the district. It, therefore, behooves every County Society in the State to have its Public Relations Committee contact the Welfare Officer and endeavor to keep their welfare work on a fee basis for those physicians in the county who wish to render the service on a reduced fee basis thereby retaining their patients who, in better times, will return to them and again become pay patients. The so-called Vaughn Plan, in which many activities such as vaccination, administering toxoids, pre-school examinations, *etc.*, are planned, is not only economical but efficient.

We stand for the preservation of the family physician. The Public Welfare Law, as it is now being administered in some of our counties in the state, will greatly correct many of the abuses.

Under the terms of the law the State establishes relief standards and reimburses the local welfare district for approved expenditures on account of unemployment relief including medical relief. Many of our profession are asking and demanding that the physician be paid for all services rendered to that portion of the public—indigent, near indigent, dispensary patients, and hospital patients commonly known as ward patients—who cannot pay. There is justice in this demand. The physician should have the same consideration as do other citizens who are paid for services rendered or for goods sold.

Our Public Relations Committee has aptly expressed it: "Compensation to protect physicians against economic loss is rightfully expected and should be provided from public funds." The Welfare Departments in all the larger cities are paying the physician or physicians a salary for the care of the indigent. The purpose of this arrangement is better to budget their funds. It has many objections: (1) A practicing physician who has a salaried job usually takes care of his private work at the expense of his salaried work. This is only human. (2) It often occurs, if an indigent person is very ill or demands too much attention, that the case is sent to the charity wards of the hospital causing the city to pay for double service. (3) Too often the city physician is a political appointment, is not appointed for his ability but for his political influence and, as a result, gives inferior service. (4) A physician on a fee basis will always respond more promptly than one on a salary.

It cost the 41 cities in the State of New York, which employed salaried physicians, \$103,667.56 according to the Mayors' conference on Oct. 31, 1933. This is approximately \$1,000 per man for the year.

Their Society should go on record taking such action as may be necessary to correct this system. Each reputable physician in his community is not only entitled to his share of such work but, as a citizen and taxpayer, should receive it.—*N. Y. State J. M.*, May 15, 1934.

Additional Articles on Medical Economics

Delaware (Eastern Branch) County—p. 960.
Is Insurance Coming?—p. 933.

PHYSICAL THERAPY

Physical Therapy Session to Be Held in Philadelphia

The thirteenth annual scientific and clinical session of the American Congress of Physical Therapy will be held in Philadelphia at the Bellevue-Stratford, Sept. 10 to 13, 1934.

This year's session will be especially noteworthy because of the excellent program which has been arranged. Outstanding clinicians and teachers will present the results of the newer researches in the field, emphasizing short wave therapy, hyperpyrexia, light therapy, remedial exercise, massage and other interesting subjects.

On Wednesday evening, Sept. 12, a joint session will be held with the Philadelphia County Medical Society.

Special features will be the scientific and technical exhibits and the small group conferences. The latter have been arranged for Tuesday morning. Every specialty of medicine and surgery will be represented. The technical application of physical measures will be demonstrated and the fundamentals emphasized. The general sessions will be taken up with symposia on cancer, arthritis, poliomyelitis, industrial surgery, etc.

Friday, Sept. 14, has been set aside for hospital teaching clinics which will be held in the leading institutions of Philadelphia.

Plan now to attend this very important medical gathering. Physicians and their technicians, properly vouched for, are eligible to attend.

Send for preliminary program. Address American Congress of Physical Therapy, 30 North Michigan Ave., Chicago, Illinois.

Paraffin Bath as Treatment for Arthritis.—Dr. Barnard L. Wyatt, of Tuscon, Arizona, recently reported to the American Congress of Physical Therapy that bathing rheumatic joints of hands, feet, wrists, and ankles, in hot paraffin is a valuable means of treating these conditions in arthritic patients. The paraffin bath allows a greater heat to be applied to the crippled joint than is possible with solutions, packs, foment, oils, or radiant heat.

Dr. Wyatt claims the paraffin treatment produces more prompt and longer lasting relief of symptoms than other methods of applying heat. Because of an insulating thin layer of air between the patient's skin and the inner coating of paraffin which he gets over his hands or feet when the paraffin is applied, the patient is able to endure very high temperatures.

MEDICOLEGAL NOTES

Liability for Neglect in Treating Compensation Case.—According to an article in the *J. A. M. A.*, July 7, 1934, p. 66, if a physician, who is employed by

a subscriber to the workmen's compensation fund of West Virginia to render medical and surgical aid and treatment to its employees, is so unskillful and negligent in his treatment of an employee, injured in the course of employment, that the injury is thereby aggravated, such aggravation constitutes a part of the original injury for which the employer is liable under the workmen's compensation act. No independent action is maintainable against the physician. The services rendered by the physician were in furtherance of the employer's business, under express authority of employment, and the acts of the physician are the employer's acts.—*Hinkelman v. Wheeling Steel Corporation (W. Va.)*, 171 S. E. 538.

Negligence Must Be Proved in Malpractice Action.—In an action for malpractice alleged to have caused the death of plaintiff's wife in childbirth the uncontradicted evidence was that the deceased had developed peritonitis 2 days before the defendant saw her for the first time. It was shown that on account of the size of the patient, who was a very large woman, it was impossible to do what might ordinarily be done in such a situation. The uncontradicted evidence of all the medical witnesses, some 5 or 6, was that what was done was what was usual and customary in like situations, that the peritonitis which caused the patient's death had been set in motion by means entirely disassociated from anything which the defendant might have done, and that the negligence of the defendant, if there was any, could not have been the cause of her death.

The Georgia Court of Appeals, Branch versus Anderson, 171 S. E. 771, reversed judgment for the plaintiff, holding that the verdict of the jury was without evidence to support it and that the trial court erred in overruling the defendant's motion for a new trial.—*Medical Record*, July 4, 1934.

Insufficient Allegation of Cause for Dismissal of Hospital Physician.—A charge that an assistant physician at a state hospital accepted a fee for medical services to an employee of the hospital in violation of a statute providing that such assistant physicians shall not engage in private practice, was held insufficient to justify his dismissal, the California District Court of Appeal held. *Rapaport v. Civil Service Commission*, 25 P. (2d.) 265. There was no reference to any rule or provision forbidding a physician accepting such compensation, or any allegation that the physician had been guilty of any private practice.

A charge of inefficiency and neglect of duty in failing to visit certain wards was held insufficient to authorize dismissal, the mere failure to perform an act not being neglect of duty authorizing such removal, in the absence of the elements of wilfulness, intention or inexcusableness.—*Medical Record*, July 4, 1934.

Negligence Claimed in Performing Tonsillectomy.—A young man consulted a specialist in nose and throat work regarding his tonsils. The doctor found the tonsils filled with pus and diseased. He put the young man in the operating chair in his office, injected novocaine around the tonsils, and with a dissector and a snare removed both tonsils. There was very little bleeding.

The patient remained in the office for about 9 hours resting from the operation. The doctor gave the patient instructions to notify him in the event that any untoward developments took place and to return in about a week.

The next the doctor heard from the patient was the third night after the operation. Then he got a tele-

phone message that the patient was bleeding. He requested that the patient come to his office, explaining that he could better treat the patient there than at the patient's home. The patient insisted that he could not travel such a distance, and the doctor made arrangements for the patient's family physician to attend him. He later learned that the family physician called at the patient's house and found that the patient had been taken to some other doctor. It was claimed that the doctor to whom the patient was taken found that part of the tonsil on the left side was still present, and that said remaining portion was the cause of the hemorrhage.

The patient instituted a suit against the first doctor charging him with alleged malpractice and, particularly, making the charge that the defendant failed to remove the entire tonsil and that a blood vessel was scraped. The case came on for trial and just as it was about to be reached, the plaintiff's attorneys apparently realizing that they were unable to prove a cause of action against the doctor agreed to discontinue the entire matter.—*New York M. J.*, July 1, 1934.

INDUSTRIAL MEDICINE

Benzol Poisoning.—Severe anemia may result from the frequent use of benzol, which is often sold under trade names as a dry cleaning liquid. As an example is cited a dry cleaning solution which contains 30 per cent of benzol, and is employed often for giving dry shampoos in beauty parlors. It is not known whether the patrons suffered from the application of the dry cleaning solution, but an operator contracted very severe poisoning which necessitated prolonged hospital treatment. The dry cleaning solution was sold under a label and trade name that in no way indicated its composition. Dry cleaning solutions containing benzol should never be used for dry shampoos.

Another dry cleaning solution, containing carbon tetrachloride, is also poisonous because of its fumes. Though less harmful than benzol, it is dangerous and a number of cases of poisoning are on record from its careless use for dry cleaning purposes.

Lead Poisoning.—Four cases of lead poisoning of persons who had worked with lead for only a few months were recently reported by Dr. Irving Gray, of Brooklyn, before the meeting of the American Medical Association. Dr. Gray used a special diet in treating these patients who had lead poisoning. This diet contains much phosphorus and little calcium. The storage of lead in the body tissues is favored by a high intake of calcium; elimination of lead is increased by lowering the calcium intake. Dr. Gray advises against too rapid de-leading and that the treatment be carried out in a hospital. All milk is omitted from the diet which includes such foods as eggs, whole wheat bread, lamb chops, liver, green peas, pineapple juice, baked potatoes, and halibut.

HOSPITAL ACTIVITIES

Is Insurance Coming?—To quote an article published in the June 15, 1934, *Hospital Management*: "The insurance schemes for paying hospital costs are legion," says Dr. C. S. Woods, superintendent, St. Luke's Hospital, Cleveland, in his annual report.

"Experience with any of them is perhaps too meager to warrant the unqualified acceptance of them if they commit the hospital to anything more than the contract which is made daily with any patient who seeks admis-

sion. It is well to anticipate that some insurance or mutual benefit plan will doubtless be presented which the hospitals may adopt without prejudice to their interests or that of their staff and other supporters. The costs of medical service are not too high, but they are so unevenly distributed that some plan which provides for hospital service for those persons whose income is small seems to be quite necessary.

Hospital Space for Victims of War.—Before sailing on his vacation cruise, President Roosevelt voiced a thought for the many thousands of war veterans whose minds are warped and twisted.

Presidential approval of the recommendations of the Federal Board of Hospitalization will make available a million dollars to convert the Veterans' Administration Home at Danville, Ill., into a neuropsychiatric facility.

General Hines, veterans' administrator, stated that extensive alterations would be made to all the buildings and eventually they will provide for a capacity of approximately 1800 beds. The project is expected to obviate the necessity for additional construction at existing neuropsychiatric hospitals in the general midwestern area. Last year 7326 admissions were authorized for psychotic or mental diseases and 12,893 cases for other neuropsychiatric disorders.

Are Flat Rates Practical?

Ethel Hastings, R. N., superintendent, Bethany Hospital, Kansas City, Kan., discusses the flat rate problem by asking the following questions.

Shall the flat rate plan be applied equally to daily, weekly, and even monthly rates?

Shall it apply equally to all surgical cases, though some be clean and some be drainage cases?

Shall all medicines ordered be included or shall a certain number only be used under the plan?

In the medical department, could a difference be made between the patient who comes in for diagnosis which will involve much laboratory and roentgen-ray work and the patient whose healthy, lively children have worn her out and she come in merely for a few days of quiet rest?

Physicians like the plan because it enables them to tell the patients in their offices just what the hospital fee will be if they seek institutional care. If we make differences in the flat rate for different types of cases will it still appeal to physicians?

Does it save money for the patient?

Has the plan as operated proved successful?

Is there a likelihood that such a plan might help to solve the financial problem in our own hospital?

It seems hardly advisable to establish a flat rate plan in any department without including a time period. In many departments, especially in the obstetric and in the medical, if patients need laboratory and roentgen-ray work for diagnosis, the hospital's expense for the care of the patient is likely to be very much greater the first 3 days than afterward. It would seem that if the flat rate plan be worked out by the day that the institution must ask a rate rather higher than the present rate for patients staying 10 days or 2 weeks, or it must ask the latter mentioned class to help pay the bill for the patient who stays only a day or so.

If one fee is asked for the room and varying fees for laboratory and roentgen-ray work a strictly flat rate plan is not being offered. It would seem very hard to distinguish patients as to the diagnosis. In case there is drainage, the amount, which is the determining factor in deciding how many times a day the dressing must

be changed, can never be foreseen, and if differences were made for the kind of case, could a flat rate plan be offered?

If a group of medicines could be selected would it not be very difficult to determine which group would be fair in all cases? If the hospital were to furnish all medicines, it would have to rely on the coöperation of the physicians.

If a hospital were to adopt a flat rate plan whereby all medicines were to be furnished, it would seem wise for the hospital and staff to reach an agreement in so far as is possible in a general way before the plan be put into operation.

Does the plan save money for the patient? Undoubtedly it does for some, but either it does not for others or the hospital must carry some additional burden or the number of patients coming into the hospital for care must be increased to the extent that small profits can be made to cover the losses sustained from the more expensive cases.

They have a flat rate for a 12-day maternity service, the price depending upon whether a ward, semiprivate or private room is chosen. Both patients and doctors like the plan. They doubt if it has increased their admissions very much, if any, though it has brought about a somewhat greater effort on the part of the patient's family to pay the bill before the patient leaves the hospital. In some hospitals obstetric patients start payments before admission.

Many hospitals do not approve of any flat rate plan at all. The reason given is that no 2 cases of illness are the same, and that it is only fair to expect each individual to pay for his own care but that it is unfair to ask him to pay for any service given to his neighbor.

Their own institution feels that they cannot extend their flat rate system with justice either to the patient or to the hospital. It would not be fair to the patients in the hospital because some patients would pay for more than they receive; others would receive more than they pay for. It would not be fair to the hospital because, while some present complaints about bills would not have to be met, the way for new and justifiable ones would be opened.—*Hospital Management*, Feb., 1934.

PUBLIC HEALTH

Accidents from Automobiles.—According to the statistics issued by the Travelers' Insurance Company in July the fatalities in automobile accidents in the United States have increased 21 per cent from Jan. 1 to July 1, 1934, in comparison to the same period in 1933. Further, the number of automobile deaths in this country have averaged 81 and the number of injured 1900 each day from Jan. 1 to July 1, 1934. It is estimated that if the number of deaths continue for the next 6 months in the same proportional increase of the first 6 months a new record of more than 36,000 will be reached.

Sterilization.—Since Oklahoma put sterilization law into effect, sterilization, as a means to eliminate criminality and imbecility, is now legal in 27 states (*Literary Digest*, May 12, 1934), and Georgia is considering it. Its constitutionality has been challenged in several cases, but, in a famous appeal from Virginia, the Supreme Court of the United States upheld the

law. Recent reports show that thousands of persons have undergone the operation by legal order. In California, alone, 10,000 men and women have been sterilized. A sterilization law went into effect in Germany on January 1. It was aimed at the elimination of inheritable diseases whose victims would be likely to become charges upon society and a menace to its well-being.

This stringent method of eliminating vice, disease, poverty and congenital idiocy has met with much opposition by organized religion, especially by the Catholic Church, which holds that it is contrary to divine and natural law.

Importance of Posture in Health.—B. M. Canter, New York, in *Medical Journal and Record*, June 21, 1933, and *Physiotherapy Review*, March, 1934, states that posture exerts a great influence on health and that the individual owes it to himself to stand erect so that he may feel physically fit.

Common everyday complaints are fatigue, backache, footstrain and joint pains. From the postural point of view, it is frequent in those who stand with the lumbar spine hyperextended, causing irritation of the spinous processes. Pain in the lumbar region occurs for the most part in the obese, thickset individual who has less back movement than the counterpart of this type. It is surprising how many persons of the sacro-iliac type obtain relief by correction of their bad habits. The obscure cases of bursitis about the shoulder joint and neuritis of the arms are sequelæ of poor posture and some patients run the gamut of therapy before the condition yielded to correction of the static difficulties.

The weight of the body is, in normal subject, transferred through the tibia to the astragalus, os calcis, and anterior part of the foot, passing from the midline of the thigh, through midline of the knee, bisecting the foot on the line with the second toe. In this class of strain the lines of force pass inside of the foot, throwing added burden on the muscles on the inner side of the foot, which helps to maintain the long arch. The well-known sequelæ of events follows: the inverting muscles tire, the ligaments are stretched, there is swelling, the foot is distorted, and rotated outward; backache is often complained of as a result of the strain imposed on the erectospinae muscles by simple walking with the feet everted.

Next in the list of common results from bad posture is arthritis. As a clinical entity arthritis embraces every department of medicine and surgery.

Arthritis of the knee is an outstanding entity. In the group of the obese with the protuberant and sagging abdomen, an increased load and strain are imposed on the knee causing the irritative type of arthritis, which around middle life forms that class known as hypertrophic arthritis with poor body mechanics, the lines of force playing upon the inner aspect of the knee causing contact and irritation of the joint surfaces and arthritis inevitably results. Many cases of this type have been relieved when treated early, by instruction in maintaining good posture.

The neck muscles are overburdened, as in desk workers who suffer from fatigue due to constantly holding the head too far forward, bringing it out of balance. Here the condition is corrected by rest at intervals and change in position. This should give tremendous relief by changing the body mechanics, thus the symptom of backache and fatigue will be less frequent.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THE thirtieth annual meeting of the National Tuberculosis Association was held in Cincinnati, May 14-17, 1934. In this issue of Abstracts, Dr. Esmond R. Long of Henry Phipps Institute presents a summary of the proceedings of the Pathological Section. Complete papers will be published later in the American Review of Tuberculosis and Transactions of the Association.

WHAT IS NEW IN PATHOLOGY?

The meeting of the Pathological Section opened with the proposal of a standard tuberculin for general use and particularly for epidemiologic studies. E. R. Long, speaking for the Committee on Medical Research of the National Association, pointed out that reports now accumulating from different parts of the country seem to indicate a wide difference in the amount of infection. The comparative value of the statistics he considered doubtful, however, in view of use of tuberculin of varying quality in the different localities. Through the work of F. B. Seibert it is now possible to supply a highly purified protein derivative, prepared from the tuberculin of the Bureau of Animal Industry of the United States Department of Agriculture in their extensive cattle testing program. Dr. Long reported the results of 2000 tests with the product, called Purified Protein Derivative, indicating its efficacy, and proposed its use as a standard.

In the discussion Drs. John Reichel and L. T. Clark, representing biological supply houses coöperating with the Committee on Medical Research, described the technical details of manufacture of the proposed tuberculin, which is offered in tablet form.

In the next paper Drs. Steele and Willis presented evidence that repeated injection of tuberculin, either in the form of O.T. or in the form of a purified whole protein (T.P.T.), and in either the same or increasing dosage, increases sensitivity to tuberculin. The increase in sensitivity occurred when the repeats

were spaced at any interval from one week to three months. In the active discussion following, the general view seemed to be that the phenomenon was one of heightening of sensitivity by the procedure rather than actual induction of sensitiveness.

Allergy and Immunity

A study reported by D. E. Cummings and A. B. Delahant threw light on the vexed problem of the relation of allergy and immunity. Guinea pigs vaccinated with the attenuated tubercle bacillus R₁ showed typical increased resistance to subsequent virulent infection, even if their skin sensitiveness to tuberculin was completely abolished by repeated injections of tuberculin, starting from the time of vaccination. Thus increased resistance occurred in the absence of hypersensitiveness, or at least hypersensitiveness demonstrable by the usual method of skin testing.

Silicosis

A study bearing on the large problem of silicosis was described by W. S. Lemon, who found that two substances of possible pathologic significance in the dusty trades, *viz.*, aluminum oxide (a constituent of emery) and boron silicate (a constituent of certain kinds of glass) produce much less permanent damage than silica when introduced in the lungs of rabbits. Each of the substances produced an early acute inflammation with outpouring of phagocytic cells, but the fibrosis caused by

uncombined silicon dioxide (silica, quartz) did not occur with the other two materials.

Another paper on silicosis, by H. E. Burke, showed how a new technic, "micro-incineration" may be used in the study of sputum if silicosis is suspected. After concentration and digestion with aqua regia, the sputum is centrifuged and the residue dried on slides and incinerated. Silica particles are detected by microscopic examination in polarized light. In Dr. Burke's experience the particles were present with considerable regularity in silicosis and absent in the absence of this disease, and he felt the technic was comparable in value to the search for acid-fast bacilli in tuberculosis.

Vitamin C

A study by de Savitsch, Stewart, Hanson, and Walsh indicated that in experimental tuberculosis of guinea pigs, orange juice was potent in increasing resistance to progress of the disease. The favorable effect, which was attributed to the vitamin C of the orange juice, was shown chiefly by maintenance of weight.

Amyloidosis

A paper by Drs. Bronfin and Guttman on amyloid degeneration of the adrenals in tuberculosis, and its effects, stimulated an active discussion of this subject. The authors pointed out the frequency of adrenal amyloidosis in chronic pulmonary tuberculosis (14 per cent of a series of necropsies reported), and called attention to mistakes of diagnosis to which it might lead, particularly to the diagnosis of intestinal tuberculosis from the gastro-intestinal symptoms incident to the adrenal insufficiency. They also emphasized the serious danger in subjecting patients with amyloidosis to surgical procedures, and several of the audience in discussing the paper recalled cases in their own experience in which sudden collapse in patients previously considered good operative risk was apparently, from necropsy findings, caused by adrenal amyloidosis.

Research

The section meeting of the final morning was opened by Dr. W. C. White, chairman of the Committee on Medical Research of the

National Association, with a review of the activities of the Committee and the various investigators and institutions coöperating with it. He pointed out that the number of coöperating institutions had been very large, and listed results of immediate practical significance, such as the work on standardization of tuberculin and roentgen-ray technic, and also results in basic studies of general fundamental application.

Oleothorax

Drs. Saley, Willis, and Ellwart reported a series of experimental studies on oleothorax in rabbits. With an elaborate collection of illustrations they showed that paraffin and cottonseed oils, with and without gomenol, lead to prompt exudation of fibrin and more or less extensive adhesions. In the discussion, corresponding clinical experience was reported, and it was generally agreed that before induction of therapeutic oleothorax, the marked tendency of oils to cause adhesions should be taken into account.

Multiple Primary Foci

An extended study of multiple pulmonary calcifications by H. C. Sweany was supported by a large series of roentgen-ray films illustrating the great variety of ways in which calcium is deposited. Besides the familiar Ghon nodules, multiple primary foci occur, and calcification frequently follows the healing of nonprimary lesions, as tuberculous pneumonias which have cleared, and foci of haematogenous dissemination. Dr. Sweany offered a useful classification in distinguishing the several types.

Anemia

The problem of anemia in tuberculosis was described by D. E. Yochem, who re-emphasized its detrimental effect and showed how this could be counteracted by suitable therapy. One type of anemia in tuberculosis is characterized by a falling hemoglobin level with a fairly well maintained red cell count. Patients with such anemia who responded to liver and iron therapy made favorable progress against their general tuberculosis. The converse also was true.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

SCIENTIFIC PROGRAM EIGHTY-FOURTH ANNUAL SESSION

Wilkes-Barre, October 1 to 4, 1934

GENERAL MEETINGS

AUDITORIUM, IREM TEMPLE

Tuesday, October 2

10 a. m.

Reporter—Miss F. E. DILLAN, 1808 N. Pennsylvania St., Indianapolis, Ind.

Call to Order by the President.

DONALD GUTHRIE, Sayre.

Invocation.

THE REVEREND F. L. FLINCHBAUGH, Rector, St. Stephens' Episcopal Church, Wilkes-Barre.

Report of Committee on Necrology.

ROBERT G. BARCKLEY, Milford, *Chairman*.

Address of Welcome.

HON. CHARLES N. LOVELAND, Mayor, City of Wilkes-Barre.

Address of Welcome.

EDWARD W. BIXBY, Wilkes-Barre, *President*, Luzerne County Medical Society.

Presentation of Scientific Program.

RICHARD A. KERN, Philadelphia, *Chairman*, Committee on Scientific Work.

Announcement of Scientific Exhibit.

ANGELO L. LUCHI, Wilkes-Barre, *Chairman*, Committee on Scientific Exhibit.

Announcement of Entertainments.

PETER P. MAYOCK, Wilkes-Barre, *Chairman*, Local Committee on Arrangements.

Installation of President Moses Behrend.

President's Address.

MOSES BEHREND, Philadelphia.

Wednesday, October 3, 9 a. m.

AUDITORIUM, FIRST FLOOR, IREM TEMPLE

(*Note*—*Essayists will please deposit original copies of their papers with the secretary when they have finished reading them. The JOURNAL will not accept carbon copies.*)

(*Note*—*The ringing of the bell, announcing the beginning and the conclusion of the time allotted to speakers and discussors is beyond the control of the presiding officers. Ample warning of this fact, with frequent reference to time allotted, has been given all who appear on the program.*)

9 a. m.

Conservative Treatment of Vascular Spasm in Peripheral Vascular Disease (Lantern Demonstration) (15 minutes).

ISAAC STARR, JR., Philadelphia.

OUTLINE. Vascular spasm is a factor in the obstructive as well as the functional types of peripheral vascular disease. It may be relieved by the following methods: Controlled heating of the diseased area; overheating other parts of the body; intravenous injections which increase the total blood volume; and vasodilator drugs under certain conditions.

See also Scientific Exhibit.

Discussion opened by LYNDON H. LANDON, Pittsburgh (5 minutes).

Development of Roentgen and Radium Therapy (Lantern Demonstration) (15 minutes).

EUGENE P. PENDERGRASS, Philadelphia.

OUTLINE. The development of irradiation is briefly considered from the time of the discovery of roentgen rays by Roentgen, and radium by Pierre and Marie Curie. An attempt will be made to show the improvement that occurred in irradiation as we learned about the physics of roentgen rays, the biologic effects of roentgen and radium rays, and the improvement of apparatus.

Discussion opened by WILLIAM J. CORCORAN, Old Forge (5 minutes).

Critical Review of Therapy in Pneumococcus Pneumonia (15 minutes).

JOHN M. JOHNSTON, Pittsburgh.

OUTLINE. A review of the various specific and physiologic methods of therapy which have been proposed during recent years for the treatment of pneumonia together with an attempt to evaluate each of these. The use of serum, oxygen, glucose, digitalis, pneumothorax, and chemotherapy will be especially considered. Adequate standards by which the value of therapeutic measures in this disease may be judged.

Discussion opened by HAROLD W. JONES, Philadelphia (5 minutes).

Middle Ear Suppuration in Relation to the Practice of Medicine (15 minutes).

GEORGE M. COATES, Philadelphia.

OUTLINE. Suppurative otitis media, because of the anatomic relationship, may often be responsible for serious sequelæ, such as mastoiditis, labyrinthitis, meningitis, sinus thrombosis, brain abscess (intradural or extradural). Because of these possibilities it is important for the general practitioner to appreciate middle ear suppuration, improve his diagnostic acumen for same, and finally to institute the proper remedial measures. If improper therapy is given in any suppurative ear condition, chronicity may ensue, resulting in a diminished loss of function of the acoustic as well as the nonacoustic labyrinth. Pediatric otolaryngology concerns itself very much with the not uncommon prevalence of middle ear suppuration. It is generally not ap-

preciated that the middle ear may act as a focus of infection just as the tonsils, adenoids, paranasal sinuses, teeth, etc.

See also Scientific Exhibit.

Discussion opened by FREDERIC S. HUNTINGTON, Scranton (5 minutes).

Medical Care of the Aged (15 minutes).

ROY ROSS SNOWDEN, Pittsburgh.

OUTLINE. Medical service for those of advanced years, to be at its best, must be based on a combination of psychologic insight and careful attention to seemingly minor details. The busy physician, especially if he is himself in the full vigor of middle-age, is apt to have the attitude that the infirmities and miseries of old age are inevitable, and that there is little to be done to relieve them, whereas to the contrary, sympathetic attention, professional skill, and an intelligent optimism may achieve extraordinarily successful results.

Discussion opened by CHARLES FALKOWSKY, JR., Scranton (5 minutes).

Interpretation of Irregular Genital Bleeding During the Menopause (Lantern Demonstration) (15 minutes).

FLOYD E. KEENE, Philadelphia.

OUTLINE. During the earlier decades of menstrual life abnormalities of pregnancy, infection, and functional anomalies are the chief causes of abnormal menstruation. As the menopause approaches, the functional origin of irregular bleeding maintains an important rôle, but benign and malignant neoplastic diseases come permanently into the foreground. After the menopause, cancer and benign lesions, characterized by varying degrees of degeneration, supplant the other causes.

Discussion opened by SIDNEY A. CHALFANT, Pittsburgh (5 minutes).

Why Women Die in Childbirth—Some of the Reasons and Remedies.

FREDERICK C. HOLDEN, New York, N. Y. (Guest).

OUTLINE. Women die in childbirth because both patient and doctor are too casual about childbirth, regarding it as a natural process requiring little, if any, care and supervision. For this reason the patient must be educated to the importance of co-operation with her physician throughout the prenatal period. The number of obstetric hours must be increased in the undergraduate years, and adequate facilities be created for post-graduate obstetric internship and training. The importance of a well-organized contraceptive clinic in association with every obstetric service which would reduce the number of deaths caused by constitutional diseases if pregnancy is contraindicated, and lessen the percentage of the abortion deaths.

Thursday, October 4, 9:15 a. m.

Diagnosis and Treatment of Nontuberculous Pulmonary Diseases (Lantern Demonstration) (15 minutes).

BURGESS LEE GORDON, JR., Philadelphia.

OUTLINE. The early recognition of minimal foci of infection in the lungs may be essential for the prevention of serious pulmonary damage. A study of cases indicates that such foci may be confused with new infections in the lungs, such as bronchopneumonia or masked by severe upper respiratory tract infections. Certain data suggest that these infections are, in fact, independent processes, precipitated into activity by lowered resistance, disturbed nutrition, or superimposed infection in the upper respiratory passages, as would occur in pulmonary tuberculosis. Although foci of infection in the upper respiratory tract and elsewhere should be treated, it is important to recognize the independent and isolated nature of these infections and treat the lungs *per se*. The value of rest in bed, dietary regulation, and pulmonary drainage is emphasized.

Discussion opened by ROSS K. Childerhose, Allenwood (5 minutes).

Observations on Metabolism and Treatment of Under-nutrition (Lantern Demonstration) (15 minutes).

JAMES M. STRANG, Pittsburgh.

OUTLINE. Undernutrition constitutes a widespread clinical problem. Our observations of the energy exchange, basal metabolism, specific dynamic action of food, nitrogen balance, and efficiency of digestion fail to disclose any qualitative alterations in this condition. The basic principles of treatment are: a. Adequate intake to secure a large positive energy balance; and b. Persistence over adequate time periods. The results obtained in one series of office patients and one series of hospital

patients will be described. A few of the practical problems will be discussed.

See also Scientific Exhibit.

Discussion opened by STANLEY D. CONKLIN, Sayre (5 minutes).

Treatment of Angina Pectoris (15 minutes).

CHARLES C. WOLFERTII, Philadelphia.

OUTLINE. The first steps preliminary to treatment are: (1) Exhaustive history, (2) complete physical examination, and (3) relevant laboratory studies. The clue to successful treatment may be found in the habits, the environment, or in the detection of such disorders as hyperthyroidism, anemia, gall-bladder disease, or diabetes mellitus. The best results are obtained if etiologic factors can be controlled. For the most part, drugs are merely palliative measures. Injections of sympathetic nerve structures or the various operations on the sympathetics have had limited success and there are serious objections to their use. The operation of total removal of the thyroid gland promises to be successful in a limited group.

See also Scientific and Motion Picture Exhibit.

Discussion opened by CHARLES H. MINER, Wilkes-Barre (5 minutes).

Hypertension and the Control of Blood Pressure (Lantern Demonstration) (20 minutes).

DETLEV W. BRONK, Philadelphia (by invitation).

OUTLINE. Modern clinical and laboratory findings indicate that there are types of hypertension which are due to disturbances in the nervous mechanism of cardiovascular control. In order to gain a clearer understanding of the etiology of such conditions electric methods have been employed for recording those nerve impulses which signal the level of pressure in the vascular system and those which reflexly cause a rise or fall in the blood pressure. A remarkably delicate adjusting and control mechanism is thus revealed. The variations of this mechanism in pathologic conditions and the results of impairment of its normal function are described.

Management of Convalescent Children (15 minutes).

EARL D. BOND, Philadelphia.

OUTLINE. In 200 cases of children studied for admission to a school which treated behavior difficulties, there appeared many comments on the management of convalescence from different diseases. It was evident that families had made many mistakes and that the doctors and nurses had given little help after the acute illness had subsided. It is suggested that physicians have much to gain for their patients and themselves by adopting a plan for convalescent care and such a plan is briefly outlined.

See also Scientific and Motion Picture Exhibit.

Discussion opened by J. ALLEN JACKSON, Danville (5 minutes).

Report of State Society Committee on Appendicitis Mortality (Lantern Demonstration) (10 minutes).

JOHN O. BOWER, Chairman, Philadelphia.

OUTLINE. Sixty-four per cent of patients admitted to our hospitals with a diagnosis of appendicitis had uncomplicated appendicitis and 1 in 183 died; 22 per cent had a local peritonitis and 1 in 40 died; 14 per cent had a spreading peritonitis, and 1 in 4 died; 81 per cent of the deaths are due to spreading peritonitis, yet the diagnosis is seldom made before the patient enters the hospital. The problem is to increase the number of clean cases admitted to our hospitals, and to emphasize the importance of diagnosing spreading peritonitis before operation. The solution lies in State-wide publicity and re-education of the profession regarding symptoms and signs of spreading peritonitis. The desired result is: Increased clean cases approaching 100 per cent, decreased mortality approaching a fraction of 1 per cent, fewer catastrophes. The result to be achieved will depend on how much money is spent (cost of campaign as conducted in Philadelphia for 5 years, \$7500; estimated cost to publicize the State of Pennsylvania for 5 years, \$36,150).

Discussion opened by JOSEPH P. REFLOGLE, Johnstown (5 minutes).

Research Work of the National Institute of Health (Lantern Demonstration).

GEORGE W. MCCOY, Washington, D. C. (Guest).

OUTLINE. Reviews certain studies of recent years. Among the nutritional diseases, pellagra has been shown to be due to a dietary deficiency factor and the disease may be readily prevented and cured by certain additions to the dietary. Typhus and eastern variety of Rocky Mountain spotted fever have been differentiated and the vector of each shown, together with indications for prophylaxis. Mechanism of the production of postvaccinal tetanus has been disclosed which points readily to means of prevention while studies on postvaccinal encephalitis

have left doubt as to means of spread and of prevention. Prevalence of undulant fever and tularemia. Studies of first epidemic of amebic dysentery have thrown new light on transmission and on certain clinical phases. Survey of epidemiology of epidemic encephalitis yields many interesting facts but no solution of the problem. Studies on serums and vaccines, and standardization of same.

See also Scientific Exhibit.

SECTION ON MEDICINE

AUDITORIUM, FIRST FLOOR, IREM TEMPLE

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Tuesday, October 2, 2 p. m.

2 - 2:55 p. m.

Biochemistry in Clinical Medicine, from the Standpoint of the General Practitioner (Lantern Demonstration) (20 minutes).

GEORGE MORRIS PIERSON, Philadelphia,

WALTER KARR, Philadelphia (by invitation).

OUTLINE. Individuals with severe persistent vomiting lose large quantities of sodium chloride from the body. This results in a lowering of the blood plasma chlorides, accompanied by dehydration, and nonprotein nitrogen retention in the blood. The condition may present a very confusing picture. Such a condition, with the vomiting and nitrogen retention is often considered due to advanced glomerular nephritis or uremia and treated by sweating and withholding salt which only aggravates the condition by further depriving the body of sodium chloride.

See also Scientific Exhibit.

Discussion opened by FRANK ALEXANDER EVANS, Pittsburgh (5 minutes).

Blood Pictures in Infections, from the Standpoint of the General Practitioner (Lantern Demonstration) (20 minutes).

MAX M. STRUMIA, Bryn Mawr (by invitation).

OUTLINE. The amount of information that may be gathered on the progression of an infection from the morphology of the blood and especially of the leukocytes is truly immense.

See also Scientific Exhibit.

Discussion opened by FREDERICK O. ZILLESSEN, Sunbury (5 minutes).

3 - 3:55 p. m.

Psychiatry, from the Standpoint of the General Practitioner (55 minutes).

C. MACFIE CAMPBELL, Boston, Mass. (Guest).

OUTLINE. The general practitioner sees patients in the early stages of mental disorders, after recovery from mental disorders, in the chronic stage over prolonged periods. The general practitioner sees not only cases which are usually thought of as mental cases, but also cases of so-called "nervousness,"

hysteria, anxiety conditions, phobias, compulsions. He also sees cases in which physical ailments are complicated by the personality of the patient or by factors in the situation.

The general practitioner can not escape the challenge of these various cases, and is in a specially favorable strategic position for dealing with these topics of importance.

See also Scientific and Motion Picture Exhibit.

4 - 5 p. m.

Inheritance and Disease (Lantern Demonstration) (20 minutes).

JOSEPH H. BARACH, Pittsburgh.

OUTLINE. To what extent are we the creatures of inheritance and environment? Where does inheritance begin and how far does it go? What are the everyday manifestations of inheritance in the various structures and functions of the body, in health and in disease? Some outstanding manifestations of inheritance in disease. A genetic interpretation of inheritance in disease.

See also Scientific Exhibit.

Discussion opened by AUGUSTUS S. KECIL, Altoona (5 minutes).

Treatment of Peripheral Vascular Disease by Means of Alternate Negative and Positive Pressure (Lantern Demonstration) (20 minutes).

EUGENE M. LANDIS, Philadelphia.

OUTLINE. If peripheral vascular disease has advanced to the stage in which the arteries are no longer able to dilate, the usual methods of treatment, including sympathetic gangliectomy, fail to increase blood flow and often fail to be of benefit. The method described by Landis and Gibson, when used in treating patients with advanced peripheral vascular disease, elevates skin temperature, diminishes cyanosis, alleviates rest pain and accelerates the healing of superficial, indolent ulcers. Evidence is accumulating to show that if patients can be aided temporarily during episodes of pain or ulceration, time is gained for the development of adequate collateral blood flow, and serious mutilating operations can often be avoided.

See also Scientific Exhibit.

Discussion opened by LEWIS H. HITZROT, Philadelphia (Lantern Demonstration) (5 minutes).

Infection of the Lung with Actinomyces Graminis, Case Report (Lantern Demonstration) (10 minutes).

WALTER K. BAER, Lancaster,

ROLAND N. KLEMMER, Lancaster,

LENA A. LEWIS, A.B., Lancaster (by invitation).

OUTLINE. The patient after about 10 bouts of fever lasting from 4 days to 2 weeks each and occurring over a period of almost 3 years, finally died at the age of 42. The attacks clinically resembled a recurring severe bronchitis with severe cough, expectoration of a thick yellowish-green sputum which was occasionally slightly blood streaked, drenching sweats, progressive anemia and weakness with a very striking clubbing of the fingers and toes. Roentgenograms of the chest with lipiodol excluded bronchiectasis. Mycelia were found in the sputum during life, and from the lung at postmortem examination an organism which grew in long branching filaments was isolated. The organism was aerobic, nonacid-fast and corresponded with the cultural characteristics of actinomyces graminis as described by Topley and Wilson.

See also Scientific Exhibit.

Three Cases of Low Blood Calcium Followed Over a Number of Years (Lantern Demonstration) (10 minutes).

JOSEPH S. BROWN, Lewistown.

OUTLINE. We report 3 cases in children, ages 2 years, 14 months, and 13 months. These cases are of increased blood calcium, the first being 21 mg. per 100 c.c. of blood, the second case being 42 mg. per 100 c.c. of blood, and the third case being 18 mg. per 100 c.c. of blood, with what is apparently a pre-ossification of the cranial sutures, the high blood calcium possibly being the cause, with a resulting idiocy. Wassermann reaction was negative in all cases. These children have been studied since May, 1932.

See also Scientific Exhibit.

Wednesday, October 3, 2 p. m.

2 - 2:55 p. m.

Report of Executive Committee—Election of Section Officers.

Weight Reduction and the Dinitro Compounds (15 minutes).

EDWARD L. BORTZ, Philadelphia,

ANTHONY SINDONI, Jr., Philadelphia,

MISS ETHEL MAY HOBSON, Philadelphia

(by invitation).

OUTLINE. The question of weight reduction in individuals suffering from some organic disease or predisposition to organic disease as well as in those with metabolic disorders is one of increasing importance. In the great majority of cases, the obesity is exogenous in type but in a certain percentage it is certainly of endogenous origin. Studies have been made of newer therapeutic remedies, such as *Dinitrophenol* and *Dinitroresol* in an endeavor to determine their practical value in producing a reduction of body weight.

See also Scientific Exhibit.

Discussion opened by WALTER M. BORTZ, Greensburg (5 minutes).

Seventy-three Cases of Hyperthyroidism Treated by Irradiation (15 minutes).

JAMES J. QUINEY, Easton.

OUTLINE. Indications, contraindications, and advantages of this method. Technical factors, accessory measures, and general instructions. Frequency of treatments and symptomatic treatment. Evidence of improvement and dangers of the method. Analyses of cases and results of treatment. Bibliography.

3 - 3:55 p. m.

Clinical Management of Patients Before and After Total Ablation of the Thyroid for Chronic Heart Disease (Lantern Demonstration) (55 minutes).

HERRMANN L. BLUMGART, Boston, Mass. (Guest).

OUTLINE. The treatment of patients with various forms of heart disease by completely removing the normal thyroid gland in patients with no evidence of hypothyroidism; the indications and contraindications of the operation; proper selection of cases; and the regulation of thyroid dosage in the postoperative course will be discussed.

4 - 5 p. m.

Hypertension Simulating Hyperthyroidism (15 minutes).

RONALD L. HAMILTON, Sayre,

ALBERT P. KNIGHT, Sayre (by invitation).

OUTLINE. Discussion of blood pressure readings as recorded on a series of patients with nontoxic goiter, patients with adenoma of the thyroid with hyperthyroidism, patients with exophthalmic goiter, and also in a series of control cases.

A brief survey made of the literature with an attempt to show the relationship between the autonomic nervous system and hyperthyroidism.

Discussion of cases of seeming hyperthyroidism with an associated hypertension who have many of the symptoms of increased thyroid activity. There is frequently much difficulty in the differential diagnosis between hypertensive cardiovascular disease and hyperthyroidism. A case report is presented to show the difficulties in the differentiation of these two conditions.

Discussion opened by HAROLD L. TONKIN, Williamsport (5 minutes).

Venous Pressure. Its Clinical Importance, with a Simplified Technic for its Determination by the Direct Method (Motion Pictures) (15 minutes).

WILLIAM G. LEAMAN, Jr., Philadelphia.

OUTLINE. Attention is called to venous pressure as a clinically useful procedure. The physiology is briefly touched upon. Normal values and variation from normal in different disease states. Venous pressure had its greatest field of usefulness in cardiac cases in which it is useful in diagnosis, prognosis, and in treatment. A new apparatus for the determination of venous pressure by the direct method is shown in a short film following presentation of subject matter. By means of this apparatus it is shown to be possible to take a venous pressure reading in about the same time it takes to make an ordinary blood pressure reading, and it has the added advantage of allowing blood to be withdrawn for the laboratory at the same time.

See also Scientific Exhibit.

Discussion opened by HOWARD G. SCHLEITER, Pittsburgh (5 minutes).

The Preeclamptic Woman (15 minutes).

FREDERICK B. UTLEY, Pittsburgh.

OUTLINE. Two thousand and forty-three preeclamptic women were studied and treated in the Out-Patient Department and

Wards of the Elizabeth Steel Magee Hospital during the period Aug. 1, 1929, to June 1, 1934, with only 2 patients developing eclampsia. During the same period 74 cases of eclampsia with convulsions were admitted to the hospital by outside physicians.

History, physical findings, and laboratory data of the typical preeclamptic woman are analyzed and deductions drawn. Under treatment, the importance of proper diet, rest, and elimination of all proved foci of infection is shown.

Conclusion: Eclampsia is not due to a specific toxin but rather it is due to a summation of the various toxins, endogenous and exogenous. It is well to remember that the liver and kidneys are often damaged in the pre-pregnant period. The importance of the practice of preventive medicine in order to avoid eclampsia.

Discussion opened by P. BROOKE BLAND, Philadelphia (5 minutes).

Thursday, October 4, 1:30 p. m.

1:30 - 3:15 p. m.

Further Observations on Granulocytopenia (Lantern Demonstration) (15 minutes).

GEORGE J. KASTLIN, Pittsburgh.

OUTLINE. In 1922, Schultz reported a condition which he called agranulocytic angina. In 1927, only 45 cases were reported in the literature. Since that time many similar cases have been reported. Since 1927 the many cases reported have given rise to the terms agranulocytosis and granulocytopenia, which have come to be used loosely. Five cases are of acute form and typical of the original agranulocytic angina; one case is of recurrent form. Drugs containing benzene ring played no part in their etiology. It is difficult to establish the etiologic importance of such drugs from the clinical data and other etiologic factors must be searched for.

See also Scientific Exhibit.

Discussion opened by BERNARD J. MCCLOSKEY, Johnstown (5 minutes).

Repeated Blood Sugar Determinations in Certain Cases of Diabetes (15 minutes).

EDWARD P. GRIFFITHS, Etta.

OUTLINE.

See also Scientific Exhibit.

Discussion opened by EDWIN B. RENTSCHLER, Reading (5 minutes).

Arthritis of the Spine (Lantern Demonstration) (15 minutes).

SYDNEY J. HAWLEY, Danville.

OUTLINE. The clinical histories and roentgen examinations of the spine are correlated in about one thousand cases, for the purpose of ascertaining the significance of spur formation on the vertebrae. Relation of age, weight, sex, and occupation to these changes classified. The influence of arthritis elsewhere also determined. The purpose of this review is to attempt to clarify the relation of arthritic changes on the spine to trauma, with special attention to medicolegal relation, and also to attempt to determine the effects of trauma in patients who already have evidence of spinal arthritis.

See also Scientific Exhibit.

Discussion opened by BYRON JACKSON, Scranton (5 minutes).

Diagnosis and Modern Treatment of Amebiasis (Lantern Demonstration) (20 minutes).

JOHN A. KOIMER, Philadelphia.

OUTLINE. Types of amebiasis; distribution and frequency; clinical manifestations of acute and chronic intestinal amebiasis; methods of diagnosis; methods of treatment; criteria of amounts of treatment to be given.

See also Scientific Exhibit.

Discussion opened by DANIEL F. DALEY, Kingston (5 minutes).

Summary of Present Day Endocrinology for the Practitioner (Lantern Demonstration) (15 minutes).

ROBERT DENISON, Harrisburg.

OUTLINE. The present status of the endocrine literature is confusing and contradictory. An attempt has been made to analyze carefully the material and present the generally accepted conclusions and interglandular mechanisms. The functions of the various glands are discussed and their respective

hormones are charted in relation to their actions, to their mutual synergy and antagonism. Diagrams showing glandular relationships are included for purposes of clarification. The practical application of various hormones for the control of such important and frequent diseases as diabetes mellitus, hyperthyroidism, migraine, and other conditions.

See also Scientific Exhibit.

Discussion opened by LEO H. CRIFF, Pittsburgh (5 minutes).

SECTION ON SURGERY

BALLROOM, SECOND FLOOR, ELKS' HOME

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Chairman—SAMUEL J. WATERWORTH, 207 E. Cherry St., Clearfield.

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Reporter—MISS MARY E. REIK, Southgate Apts., N-2 Alger Court, Bronxville, N. Y.

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Tuesday, October 2, 2 p. m.

2 - 2:55 p. m.

Management of Occiput Posterior Position.

ROY E. NICODEMUS, Danville.

OUTLINE. Consideration of the maternal morbidity and fetal mortality; importance of diagnosing the condition early in labor; administration of sedation and analgesia at the proper time and in sufficient amount; proper time for operative interference; fallacy of attempting to deliver the head in the posterior position and occiput posterior position as handled in the obstetric department of the Geisinger Memorial Hospital.

Discussion opened by JOHN C. HIRST, Philadelphia.

An Analysis of 145 Consecutive Cases of Ectopic Pregnancy, with Special Emphasis on Diagnosis.

DAVID B. LUDWIG, Pittsburgh.

OUTLINE. Brief history, clinical classification, diagnostic points, age, pain, vaginal bleeding with relationship of pain to bleeding, blood picture, significance of blood pressure with case illustration, etc. Treatment, complications, etc.

Discussion opened by P. BROOKE BLAND, Philadelphia.

3 - 3:55 p. m.

Deforming Scars; Causes, Prevention, and Treatment (Lantern Demonstration).

JEROME P. WEBSTER, New York City (Guest).

See also Scientific Exhibit.

4 - 5:00 p. m.

Comparison of the Operative and Nonoperative Methods in the Treatment of Hemorrhoids.

MARTIN S. KLECKNER, Allentown.

OUTLINE. Brief description of anatomy of ano-rectum, localizing hemorrhoidal position—varieties of hemorrhoids. Thorough study of each patient by history, physical and proctologic examination (including sigmoidoscopic) to obtain accurate diagnosis. Type of hemorrhoids present and symptomatology gen-

erally found. Type of treatment used today; in acute types; local fomentations; in chronic types, injections, surgery; when to advise surgery; when nonoperative methods are used to better advantage. The proper use of both methods will bring definite end results. Recurrence with surgery and recurrence with injection treatment. Conclusion and summarization.

Discussion opened by FRANK G. RUNYEON, Reading.

Erosion of Bone in the Neighborhood of Internal Auditory Canal Due to Neoplasm (Lantern Demonstration).

WILBUR BAILEY, Philadelphia.

NICHOLAS GOTTEN, Philadelphia.

OUTLINE. Roentgen-ray technic devised by Chamberlain and described by Towne for the demonstration of neoplasm in the region of the internal auditory meatus. In the past 3 years in a number of cases of verified (necropsy or operation) neoplasms in the region of the cerebellopontile angle, a large percentage showed bone changes (erosion) at operation or necropsy. These were all cases of acoustic neuroma. Roentgen examinations revealed this erosion in most of the cases of acoustic neuroma. Angle tumors, other than acoustic neuroma, show bone erosion in a very small percentage of cases. A suitable technic for routine examination of the skull can be made to include the special angle without adding to the expense of the complete skull examination by substituting the special occipital projection for the usual dorsal projection. Illustrative cases will be presented with lantern slides of roentgenograms.

Discussion opened by TEMPLE S. FAY and EUGENE P. PENDERGRASS, Philadelphia.

Indications for Blood Transfusion, with Special Reference to Technic.

ALAN P. PARKER, Philadelphia.

OUTLINE.

Discussion by WILLIAM P. BELK, Ardmore.

Wednesday, October 3, 2 p. m.

2 - 2:55 p. m.

REPORT OF EXECUTIVE COMMITTEE—ELECTION OF SECTION OFFICERS

An Analysis of 2700 Cases of Acute Appendicitis.

HOLLAND H. DONALDSON, Pittsburgh.

OUTLINE. A personal study of 2700 case records. No doubtful cases or cases not considered acute by pathologic examination were considered. Analysis includes such factors as age, sex, number of attacks, duration of symptoms, when operated upon, location of first pain, purgation, vomiting, pathologic findings, postoperative complications, and mortality.

Discussion opened by ELDRIDGE L. ELIASON, Philadelphia, JOHN W. DIXON, Pittsburgh.

Indications for Enterostomy, with Special Reference to Technic.

GEORGE W. HAWK, Sayre.

OUTLINE. Enterostomy is one of the most valuable operations contributed to surgery in many years. In properly selected cases and by using a proper technic, it is a life-saving procedure. Its greatest value is seen in cases of postoperative acute intestinal obstruction. As a complementary procedure it is a great aid in reducing mortality and helps provide a smooth convalescence. The adverse criticisms reported in the literature can largely be attributed to the selecting of moribund patients for its use and faulty technic.

Discussion opened by DAMON B. PREIFFER, Philadelphia.

3 - 3:55 p. m.

Diagnosis and Treatment of Cancer of the Large Bowel (Lantern Demonstration).

J. SHELTON HORSLEY, Richmond, Va. (Guest).

See also Scientific Exhibit.

4 - 5 p. m.

Preoperative and Postoperative Care of the Jaundiced Patient.

HUBLEY R. OWEN, Philadelphia.

OUTLINE. The etiology of jaundice; surgical conditions associated with jaundice; necessary laboratory studies on the

jaundiced patient; preoperative treatment of the jaundiced patient; postoperative treatment.

See also Scientific Exhibit.

Discussion opened by S. DANA WEEDEE, Philadelphia.

Surgical Treatment of Pharyngeal Diverticulum by the Combined One-Stage Method.

THOMAS A. SHALLOW, Philadelphia.

OUTLINE. Surgical technic evolved in the operative treatment of pharyngeal diverticula on 72 cases was the "combined one-stage closed method." This series, characterized by absolute freedom from mediastinitis, leaves the pharynx and esophagus in their normal positions with a minimum of physiologic disturbance.

See also Scientific Exhibit.

Discussion opened by LOUIS H. CLERF, Philadelphia.

Important Early Signs in the Localization and Diagnosis of Spinal Cord Tumors (Lantern Demonstration).

TEMPLE S. FAY, Philadelphia.

OUTLINE. The important considerations of root pain, associated with vasomotor instability, in the superficial skin dermatomes of the body, have been found to be early manifestations of organic involvement of the spinal roots. Lantern slide presentation of various types of spinal cord neoplasms, with the typical clinical, laboratory and roentgen-ray findings. Operative technic, and pathologic demonstration of spinal cord neoplasms encountered during the past ten years.

See also Scientific Exhibit.

Discussion opened by ARTHUR E. DAVIS, Scranton.

Thursday, October 4, 1:30 p. m.

1:30 - 3:30 p. m.

Fractures and Dislocations in the Region of the Elbow (Lantern Demonstration).

VOIGT MOONEY, Pittsburgh.

OUTLINE. Anatomy of the normal elbow, measurements, methods of examination; signs and symptoms of injuries about the elbow; treatment of fractures about the lower end of the humerus, the hyperflexed position, the after-care of injury to the elbow; Volkmann's paralysis, why it is seen in children and not in adults; fractures of the lower end of the humerus entering the elbow joint in adults.

See also Scientific Exhibit.

Discussion opened by H. ALEXANDER SMITH, Wilkes-Barre.

Treatment of Fractures of the Body of the Calcaneum (Lantern Demonstration).

THOMAS A. OUTLAND, Sayre.

OUTLINE. Introduction; etiology; diagnosis; treatment, undisplaced fracture, displaced fracture; Cahot-Binney, Cotton, Wilson, Boehler; results.

See also Scientific Exhibit.

Discussion opened by WILLIAM L. ESTES, JR., Bethlehem.

Treatment of Fractures of the Pelvis and Complications with Motion Picture Demonstration of Operation for the Repair of Rupture of the Urethra.

GROVER C. WEIL, Pittsburgh.

OUTLINE. Consideration of first aid; method of transportation; preliminary survey of patient upon admission to hospital including the problem of shock and other complicating features such as intestinal ileus; importance of asepsis in rupture of urethra, repair of rupture of urethra by retrograde catheterization; reduction and fixation of fracture; importance of convalescent period with rehabilitation of patient.

See also Scientific Exhibit.

Discussion opened by ARTHUR G. DAVIS, Erie.

Simple Fractures of the Shaft and Lower End of the Femur in Adults.

SAMUEL P. MENGEL, Wilkes-Barre.

OUTLINE. Varieties, displacement and causes, x-ray examination, skeletal and skin traction, complications, non-union and mal-union, mortality, functional results, etc.

See also Scientific Exhibit.

Discussion opened by HUBLEY R. OWEN, Philadelphia.

Treatment of Fractures of Both Bones of the Forearm.

JOHN HOWORTH, Wilkes-Barre.

OUTLINE. This paper is concerned with fracture of middle and lower thirds. Etiology—direct and indirect violence—torsion. Importance of accurate roentgen-ray examination; methods of reduction and fixation.

See also Scientific Exhibit.

Discussion opened by ANATOLE DESJARDINS, Wilkes-Barre.

Treatment of Fractures of the Spine (Lantern Demonstration).

ARTHUR G. DAVIS, Erie.

OUTLINE. The evolution of fractured spine treatment since the first actual reductions of nine years ago will be reviewed very briefly. Six techniques of reduction will be shown by films with lantern slides to illustrate typical cases by each method. The advantage of having a number of eligible methods available for the different types of fracture ordinarily encountered will be shown.

See also Scientific Exhibit.

SECTION ON EYE, EAR, NOSE, AND THROAT DISEASES

BALLROOM, MALLOW-STERLING HOTEL

OFFICERS OF SECTION

Chairman—GEORGE H. CROSS, 525 Welsh St., Chester.

Secretary—GEORGE W. SCHLINDWEIN, 138 W. Ninth St., Erie.

Executive Committee—MATTHEW S. ERSNER, 1915 Spruce St., Philadelphia; GEORGE F. GRACEY, 209 State St., Harrisburg; REID NEBINGER, Geisinger Hospital, Danville.

Reporter—MISS F. E. DILLAN, 2057 N. Alabama St., Indianapolis, Ind.

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Tuesday, October 2, 2 p. m.

Lightning and Electric Cataract (20 minutes).

JOSEPH V. CONNOLE, Wilkes-Barre.

OUTLINE. The opacities may be in the anterior or posterior portion of the lens, but are more often anterior. One or both eyes may be involved. Cataracts due to lightning or electric current may not appear for some time after burn and in industrial cases injured by electric shock, particularly if compensation is involved, one must consider the possibility of the development of electric cataract for a period of 2 years after the burn. Electric cataract may be caused by voltages varying from 220 to 50,000.

Discussion opened by THOMAS B. HOLLOWAY and WARREN S. REESE, Philadelphia.

Preoperative Care of Cataract Patients (20 minutes).

HUNTER H. TURNER, Pittsburgh.

OUTLINE. The best insurance against an unfavorable post-operative reaction is a painstaking pre-operative general study of each case. This should include a careful check on the bacterial flora present in the conjunctiva, and the elimination of all foci from the nose, throat, and mouth.

Discussion opened by EDWARD B. HECKEL, Pittsburgh, and CHARLES E. G. SHANNON, Philadelphia.

Glaucoma. Results in Sclerecto-Iridodialysis (Motion Pictures) (50 minutes).

CHARLES N. SPRATT, Minneapolis, Minn. (Guest).

OUTLINE. Chronic glaucoma is an insidious disease of middle life and is frequently confused with incipient cataract. Patients are often neglectful or unaware of the loss of vision until blindness results. Too many physicians have the textbook picture of this disease, which is the end and not the onset. If we are to prevent blindness when this disease is present, the condition must be recognized early. When vision is once lost, it is rarely regained. The most that we can hope for is the retarding of the progress of the disease. The writer has had satisfactory results in this condition by employing sclerecto-iridodialysis, which is a modification of the Lagrange operation.

Electrocoagulation for Retinal Detachment (Motion Pictures) (15 minutes).

LUTHER C. PETER, Philadelphia.

OUTLINE. The special feature of this paper is the demonstration by motion pictures. Report will be made of number of cases treated with results and giving details of precautions necessary to obtain best results.

Discussion opened by EDMUND B. SPAETH, Philadelphia, and SOLON RHODE, Reading.

Results in Detachment of the Retina (15 minutes).

BENJAMIN F. BAER, JR., and JAMES S. SHIPMAN, Philadelphia.

OUTLINE. Gonin was the first person to recognize the significance of the retinal tear in detachment of the retina. His operation for the correction of detachment of the retina is dependent upon closure of the retinal tears by means of thermocautery. Owing to the difficulties encountered in his operation, various procedures have been devised by other operators. Since these procedures require much less accurate localization of the tears, they have been found more suitable. After a trial of various methods in our service at the Wills Hospital, we have found Safar's the most useful. Results obtained in a series of about 20 cases.

See also Motion Picture Exhibit.

Discussion opened by JAY G. LINN, Pittsburgh, and J. MILTON GRISCOM, Philadelphia.

Concretion of the Lacrimal Canaliculus (15 minutes).
WARREN S. REESE, Philadelphia.

OUTLINE. Report of case. Condition is quite rare and author reviews the literature of other cases reported.

Discussion opened by WILLIAM ZENTMAYER, Philadelphia.

Wednesday, October 3, 2 p. m.

Report of Executive Committee—Election of Section Officers.

Acute Endemic Sore Throat with Report of Cases (15 minutes).

REID NEBINGER, Danville.

OUTLINE. Report of cases in a recent epidemic with acute ulcerative pharyngitis and laryngitis and massive cellulitis of the neck. Marked obstructive breathing. Condition is not agranulocytic angina. Bacterial studies showed a predominating hemolytic streptococcus and Vincent's Spirillum. Very malignant type of case with high mortality.

Discussion opened by JOHN R. SIMPSON, Pittsburgh.

Influenzal Frontal Sinusitis Complicated with Meningo-Encephalitis (20 minutes).

PHILIP S. STOUT, Philadelphia.

OUTLINE. Protean manifestations of effects of virus of influenza. Discussion of various types of sinusitis accompanying influenza. Intracranial complications. Cranial nerve paralysis. Diagnosis: Meningitis, brain abscess, etc. Prognosis: Grave. Treatment: Utmost care in management of condition. Slight trauma may cause fatal outcome. Probing, suction, minor or major operative procedures may prove fatal. In extreme cases patients are kept alive with intravenous glucose solution. Medication as indicated. Recovery due principally to management.

See also Scientific Exhibit.

Discussion opened by JOSEPH C. YASKIN, EDMUND B. SPAETH, and GEORGE B. WOOD, Philadelphia.

The Blood in Otolaryngology (45 minutes).

WILLIAM V. MULLIN, Cleveland, Ohio (Guest).

See also Scientific Exhibit.

Facial Paralysis from Acute Middle Ear Disease (Motion Pictures) (20 minutes).

HENRY DINTENFASS, Philadelphia.

OUTLINE. Four cases of paralysis of the facial nerve in acute mastoid disease are briefly presented with cinema demonstration of one. In two cases hospitalization and surgical drainage of the mastoid were necessary. The other two were office patients. In one a paracentesis was done. In the other, conservative treatment of the acute otitis media without incising the tympanic membrane was sufficient for cure. Facial paralysis occurring early in the course of an acute otitis media is a relative indication for opening the mastoid and operation is not called for unless other symptoms demand it. Facial paralysis occurring late in acute otitis media is an absolute indication for mastoidectomy. In the so-called idiopathic or Bell's palsy variety of facial paralysis in which the etiology is obscure, involvement of the middle ear might be revealed if a careful examination is made.

Discussion opened by JOHN B. McMURRAY, Washington, ARTHUR J. WAGERS, and KARL M. HOUSER, Philadelphia.

Minor Conditions Affecting the Ear, Nose, and Throat (20 minutes).

JOHN R. SIMPSON, Pittsburgh.

OUTLINE. The main purpose of this paper will be to give the younger men some practical points in the handling of the following conditions: Epistaxis; Infections of the vestibule of the nose; Hematoma of the septum including septal abscess; Ozena; Injury of the drum membrane; Furuncle of the external auditory canal; Otitomycosis; Hematoma of the auricle; Retropharyngeal and peripharyngeal abscess.

Discussion opened by GEORGE B. JOBSON, Franklin, and JOHN B. McMURRAY, Washington.

Practical Points in the Treatment of Chronic Suppurative Otitis Media (12 minutes).

KENNETH M. DAY, Pittsburgh.

OUTLINE. Method of treatment dependent upon the type of infection. Importance of care of nasopharynx with tubal infections. The use of anhydrous or dehydrating solutions when epidermis has spread to the middle ear and attic, with or without cholesteatoma. Special forms of treatment if molds and saprophytes are present. Signs of extension and indications for radical surgery.

Discussion opened by GEORGE M. COATES, Philadelphia.

Infection Following Mandibular Injections (15 minutes).

J. MERLE RUSSELL, Erie.

OUTLINE. We see occasional infections following mandibular injections. Is this a fault of technic or is it a fault of extraction of the lower molars in an infected field? Does the use of adrenalin predispose or make worse the infection at this time? We know that a great many dentists have never had any trouble with mandibular infections, but we also have seen many cases of serious infection, some of which have been followed by death. This paper is to remind us of the possibility of these complications.

See also Scientific Exhibit.

Discussion opened by FRANK H. RIMER, Pittsburgh.

The Treatment of Antral Disease (10 minutes).

WESLEY L. ALLISON, Pittsburgh.

OUTLINE. Treatment of an early infection, the various conservative methods relative to hygienic conditions, diet, rest, medication, and allergy. Indications, limitations and thoroughness of the "Simple Intranasal Window" operation; success or failure by this method of treatment. Use of vaccines and radium in subacute or chronic cases. Indications for the more radical operations, choice of operation.

Discussion opened by DEWAYNE G. RICHEY, and FRANK H. RIMER, Pittsburgh.

Thursday, October 4, 2 p. m.

Concerning the Etiology of Episcleritis (15 minutes).

J. MILTON GRISCOM, Philadelphia.

OUTLINE. A review of the literature concerning the causative factors in episcleritis and an analysis of a series of cases which have come under the observation of the author.

Discussion opened by CHARLES R. HEED, Philadelphia.

Secondary Glaucoma (20 minutes).

CHARLES E. G. SHANNON, Philadelphia.

OUTLINE. Definition of secondary glaucoma, course and causes of secondary glaucoma, importance of slit-lamp and tonometric studies. Treatment—medical and surgical. Report of two cases.

Discussion opened by LEO F. McANDREWS, and CHARLES R. HEED, Philadelphia.

Use of Pregl's Solution in Treatment of Various Ocular Conditions (15 minutes).

ALFRED COWAN, Philadelphia.

JAMES S. JORDAN, Philadelphia (by invitation).

OUTLINE. A considerable number of patients have been treated in the Wills Hospital by subconjunctival injections of Pregl's solution. The method of administration is described and a résumé of the findings is given. Based on a study of the results obtained, the authors offer their opinion in regard to the indications for and the therapeutic value of Pregl's solution for various ocular diseases.

Discussion opened by LEIGHTON F. APPLEMAN, and EDMUND B. SPAETH, Philadelphia.

Importance of Correcting Muscular Imbalance in the Relief of Asthenopia (15 minutes).

LEIGHTON F. APPLEMAN, Philadelphia.

OUTLINE. The importance of a careful history is pointed out, particularly as to the duration of the trouble, the amount of close work done and its relation to the symptoms, the amount of relief from previous corrections, the relation of the symptoms to panoramic views or to moving objects. The writer's method of testing for muscular weakness is described, particularly with the view of uncovering latent errors, with the method of treating the same.

Discussion opened by LEWIS P. GLOVER, Altoona, and EDMUND B. SPAETH, Philadelphia.

SECTION ON PEDIATRICS

AUDITORIUM, SECOND FLOOR, Y. W. C. A. BUILDING

OFFICERS OF SECTION

Chairman—HERBERT E. HALL, Second National Bank Bldg., Uniontown.

Secretary—FRANCIS T. O'DONNELL, 345 N. Main St., Wilkes-Barre.

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Reporter—MISS CATHERINE SULLIVAN, 219 Fingel St., Pittsburgh, Pa.

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Tuesday, October 2, 1 p. m.

1 - 2 p. m.

Luncheon at Taylor Memorial Nurses' Home, Wilkes-Barre General Hospital.

2 - 4 p. m.

Clinic by the Luzerne-Lackawanna Pediatric Society, Private Building, 4th Floor, Wilkes-Barre General Hospital.

4 - 5 p. m.

Case Report—Postvaccinal Encephalitis in Siblings (10 minutes).

JOHN D. STURGEON, Uniontown.

Management of Diabetes Mellitus in Children (15 minutes).

JOHN A. O'DONNELL, Pittsburgh.

OUTLINE. Incidence of diabetes among children in the United States. Diagnosis of juvenile diabetes. Diet of diabetic children, in relation to normal diet. Caloric requirement. Protein allowance. Carbohydrate allowance. Fat allowance. Energy requirement. Diabetic menu. Insulin; when used, amount used, and distribution of insulin during the day. Exercise as an adjuvant in treatment. Mortality of diabetic children. Results of treatment.

See also Scientific Exhibit.

Appendicitis in Children (15 minutes).

EDWARD L. BAUER, Philadelphia.

OUTLINE. The recognition of appendicitis in children, either acute or chronic, is too often overlooked because of symptomatic variance from classical picture in adult life. An attempt is made to present the picture as it really occurs in childhood and explain the reasons therefor. The object is, of course, the reduction of the altogether too high mortality of appendicitis in infants and children.

See also Scientific Exhibit.

Overwhelming Acute Respiratory Infections (15 minutes).

EDWARD S. THORPE, Philadelphia.

OUTLINE. Not rarely one is faced with cases of overwhelming infection, apparently with streptococcus hemolyticus. These children die after an illness of only a few hours' duration. The symptoms, physical findings and autopsy findings of a number of typical cases are described. The therapy used in these cases. New type of treatment.

General Discussion opened by JOHN M. HIGGINS, Sayre (5 minutes).

Wednesday, October 3, 2 p. m.

2 - 3 p. m.

Y. W. C. A. AUDITORIUM

REPORT OF EXECUTIVE COMMITTEE—ELECTION OF SECTION OFFICERS

Case Report—Two Cases of Brain Tumor (Lantern Demonstration) (10 minutes).

ROBERT A. KNOX, Washington.

OUTLINE. These cases are presented because of the contrast in history and location, and because of the diagnostic problems encountered. One presented a fairly typical case of subtentorial tumor in which the diagnosis was fairly easy. The other, supratentorial, a less frequent location in childhood, together with a confusing history, created a situation which rendered diagnosis difficult. Lantern slides of pathologic specimens.

Relative Prognostic Value of Schilling and Filament Blood Counts in Acute Infections in Children (15 minutes).

RALPH M. TYSON, Philadelphia,

FRANK W. KONZELMANN, Philadelphia,

GEORGE WOLFE, Philadelphia (by invitation).

OUTLINE. An attempt is made to evaluate the Schilling index blood count in acute infections in children. A group of various types of infections have been studied in the past year and these will be compared with filament blood counts to note their relative prognostic values.

See also Scientific Exhibit.

Significance of the Intelligence Quotient (Lantern Demonstration) (15 minutes).

BALDWIN L. KEYES, Philadelphia.

OUTLINE. Psychometric test: Purpose (estimate of grades of intelligence); method (brief outline of procedure); meaning (interpretation of result). Qualifying factors: Physical condition, emotional situation, language, training, method of examination, conditions of examination, examiner. Physical examination: More important than measurement of intelligence. Psychologists' results decidedly insufficient without psychiatric interpretation.

See also Scientific Exhibit.

Enuresis (15 minutes).

MAX R. GOLDMAN, Pittsburgh.

OUTLINE. Résumé of treatment in the last century. Treatment in the present day: (a) Procedure in the modern enuresis clinic; (b) results. Comment.

General Discussion opened by H. HARRIS PERLMAN, Philadelphia (5 minutes).

3 - 4 p. m.

Case Report—Mastoidectomy Complicated by Acute Hemorrhagic Nephritis (10 minutes).

ROBERT K. REWALT, Williamsport.

Initial Weight Loss Reduction in Newborns (Lantern Demonstration) (15 minutes).

JOHN D. DONNELLY, Bala-Cynwyd.

OUTLINE. Treatment of the fundamental causes of initial weight loss in newborns through medium of Kugelmass' Shock Solution. Comparison of results with those obtained by more common types of newborn feedings. Importance of adequate nursing, proper conditioning and handling of each infant. Preparation of solution simple. Those who receive adequate amounts of the solution react sooner to their environment, nurse better, consume larger amounts at each feeding, evacuate meconium sooner, and exhibit fewer urticarial eruptions, with definite diminution in the expectant initial weight loss.

See also Scientific Exhibit.

Management of Underweight Children (Lantern Demonstration) (15 minutes).

G. JULIUS FELDSTEIN, Pittsburgh.

OUTLINE. Definition of malnutrition. Symptoms. Etiology: (a) Cases with definite disease processes as a causative factor; (b) idiopathic or essential cases. Malnutrition in infancy frequently precursor of malnutrition in children. Treatment of malnutrition—best considered with etiology, as they are interwoven. Complete examination most important: (1) Physical, (2) mental, and (3) social. Complete diagnosis of causes of malnutrition. Management: Medical care—Diet; hygiene; prevention of fatigue. Mental care—anorexia nervosa; negativism; the only child. Special methods of treatment. Social care by welfare agencies, cities, state government. War as a factor. Economic and international conditions as a factor. Summary.

Early Diagnosis of Allergic Disease of the Respiratory Tract (15 minutes).

J. ALEXANDER CLARKE, JR., Philadelphia.

OUTLINE. Treatment of asthma more successful in childhood than at any other time of life. Improperly treated, the child may be stunted for life. The allergic diagnosis should be made and treatment started before frank dyspnea appears. Relationship of bronchitis and pneumonia to asthma. Pollen reactions in young children.

See also Scientific Exhibit.

General Discussion opened by J. GIBSON LOGUE, Williamsport (15 minutes).

Clinical Control of Hemorrhagic Disturbances in Children.

I. NEWTON KUGELMASS, New York City (Guest).

OUTLINE. Hemorrhagic diseases are evaluated in terms of blood clotting and vascular function respectively. Modification of a clotting constituent results in a specific hemorrhagic disease; likewise alteration in either structure and function of the vascular system results in a specific hemorrhagic disease. On this functional basis have hemorrhagic diseases been classified for better diagnostic and therapeutic approach. Hemorrhagic disease of the newborn represents a deficiency in prothrombin detectable in the maternal blood during pregnancy and preventable in the newborn by nutritional therapy. Chronic hypothyroidism is amenable to a high protein dietary. Thrombocytopenic purpura is produced by nutritional deficiency, infectious foci, and ovarian dysfunction as well as by reticulo-endothelial diseases. Their correction obviates splenectomy. Diagnostic methods are presented for the management of typical and transitional problems.

See also Scientific Exhibit.

Thursday, October 4, 1:30 p. m.

1:30 - 2:00 p. m.

Y. W. C. A. AUDITORIUM

Business Meeting (5 minutes).

Case Report—Duodenal Ulceration in Five-Year-Old Boy (10 minutes).

NORBERT D. GANNON, Erie.

Adolescence from Pediatric Point of View (Lantern Demonstration) (15 minutes).

THEODORE O. ELTERICH, Pittsburgh.

OUTLINE. Is adolescence a pediatric problem? Verdict of the American Academy of Pediatrics. Definitions of the terms *puberty* and *adolescence*. Puberty and adolescence in boys; in girls. Physical, mental, and emotional changes incident to this period. Diseases and pathologic syndromes likely to be encountered during this age. Diet and special needs. Selected bibliography.

2 - 3 p. m.

Leukemia in Childhood (Lantern Demonstration).

ARTHUR F. ABT, Chicago, Ill. (Guest).

OUTLINE. The pitfalls of the diagnosis of leukemia are becoming more evident, because of the increasing interest in hematologic studies of ill infants and children. Conditions simulating leukemia may be divided into those showing leukocytosis and those showing leukopenia. The points of similarity with leukemia in these conditions will be discussed and a differentiation attempted. Blood diseases in the newborn, aplastic anemias and tumor diseases will be discussed in relation to leukemia.

See also Scientific Exhibit.

3 - 3:30 p. m.

Report of a Three Years' Clinical Study of Scarlet Fever Immunization (Lantern Demonstration) (15 minutes).

EMILY P. BACON, Philadelphia.

OUTLINE. Brief review of the literature on scarlet fever immunization. Report of a series of young children who have been immunized by and kept under observation of the writer nearly three years. Discussion of questions arising from this study, such as: Is active immunization against scarlet fever possible to establish? If so, how long does the immunity last? The effort to immunize requires excellent technic, considerable time and money, careful supervision. In view of the fact that the majority of cases of scarlet fever run a mild course, is active immunization against scarlet fever indicated?

Preventive Treatment of Goiter in Schools (15 minutes).

JOHN M. QUIGLEY, Clearfield, representing Pennsylvania School Physicians' Association.

OUTLINE. This paper portrays our methods of administration of iodine and gives our experience. We attempt to evaluate the results obtained and to provoke a discussion as to the merits of this line of preventive work.

General Discussion opened by MAURICE KEMP, Allentown (5 minutes).

There will be a public inspection of the Kirby Health Center by members of the Pediatric Section, time to be announced during session.

SECTION ON DERMATOLOGY

ROOM C, HOTEL MALLOW-STERLING

OFFICERS OF SECTION

Chairman—HERBERT J. SMITH, 3303 N. 17th St., Philadelphia.

Secretary—ROBERT L. GILMAN, 1930 Chestnut St., Philadelphia.

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Reporter—MISS HELEN J. ZERRY, School of Medicine, University of Pennsylvania, Philadelphia, Pa.

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Wednesday, October 3, 2 p. m.

2 - 2:55 p. m.

Report of Executive Committee—Election of Officers.

Psoriasis (15 minutes).

PARK A. DECKARD, Harrisburg.

OUTLINE. A chronic inflammatory skin disease with an inconstant course and subject to exacerbation. Differential diagnostic procedures are presented. Treatment has included a wide variety of methods of approach and medication.

Discussion opened by FRANK C. KNOWLES, Philadelphia.

Modern viewpoint on the Problem of Eczema (15 minutes).

CHARLOTTE BACKUS-JORDAN, Easton.

OUTLINE. Modern concepts of eczema are dealt with giving a survey of the points of view of American and European dermatologists. The problems of diagnosis facing the general practitioner are discussed. The place of splenic extract in the treatment of eczema is given in case reports. Therapy is discussed from the standpoint of general and special interest.

Discussion opened by LESTER HOLLANDER, Pittsburgh.

Etiology and Treatment of Acne Vulgaris (15 minutes).

FREDERICK AMSHEL, Pittsburgh.

OUTLINE. A review of current ideas in etiology together with a summary of methods of treatment now in general use. The end result of roentgen therapy in approximately 300 cases is reviewed.

Discussion opened by PATRICIA H. DRANT, Philadelphia.

General Discussion (10 minutes).

3 - 3:55 p. m.

Diseases of the Tongue (Lantern Demonstration) (55 minutes).

HOWARD FOX, New York City (Guest).

OUTLINE. The importance of the tongue both from the standpoint of aid in diagnosis of cutaneous eruptions and of local diseases per se. The essayist will illustrate his talk with lantern slides made from recently collected photographic material. Differential diagnosis and treatment.

4 - 4:55 p. m.

Stovarsol Therapy in Congenital Syphilis: A preliminary Report of Fifty Cases (15 minutes).

DONALD M. PILLSBURY, Philadelphia,
H. HARRIS PERLMAN, Philadelphia.

OUTLINE. The chemistry and development of the drug stovarsol. The extensive European experience with stovarsol in the treatment of congenital syphilis. Schematic presentation of the dosage systems of several clinics. Our experience with the drug is confined to approximately 50 cases and we have attempted to study it in regard to spirocheticidal effect, effect on local lesions, and on Wassermann reaction. It is our impression that this form of treatment may prove valuable in the therapy of early syphilis in infants.

Discussion opened by JOHN F. SINCLAIR, Philadelphia.

Pityriasis Rosea: Clinical Varieties, Etiology, and Treatment (15 minutes).

THOMAS BUTTERWORTH, Reading.

OUTLINE. The symptomatology of pityriasis rosea with particular emphasis on localized varieties and atypical distributions. The several theories as to its causation and various methods of treatment.

Discussion opened by EDWARD F. CORSON, Philadelphia.

The Management of Cutaneous Ringworm Infection (Lantern Demonstration) (15 minutes).

JACQUES P. GUEQUIERRE, Philadelphia.

OUTLINE. A lantern slide demonstration dealing with the clinical varieties of ringworm as met with by the practitioner together with a consideration of its treatment in the light of modern chemotherapies.

See also Scientific Exhibit.

Discussion opened by FRED D. WEIDMAN, Philadelphia.
General Discussion (10 minutes).

SECTION ON UROLOGY

AUDITORIUM, FIRST FLOOR, KIRBY HEALTH CENTER

OFFICERS OF SECTION

Chairman—WILLARD H. KINNEY, 315 S. 17th St., Philadelphia.

Secretary—DAVID P. McCUNE, 208 Masonic Temple, McKeesport.

Executive Committee—THOMAS C. STELLWAGEN, JR., 220 S. 16th St., Philadelphia; THOMAS L. DISQUE, Jenkins Arcade, Pittsburgh; DANIEL P. RAY, U. S. National Bank Bldg., Johnstown.

Reporter—MISS WINIFRED M. GRAHAM, 5428 Greenc St., Germantown, Philadelphia, Pa.

(Note—Essayists will please deposit original copies of their papers with the secretary of the Section when they have finished reading them. The JOURNAL will not accept carbon copies.)

(Note—The ringing of the bell, announcing the beginning and the conclusion of the time allotted to speakers and discussors is beyond the control of any officer of the Section. Ample warning of this fact, with frequent reference to time allotted, has been given all who appear on the program.)

Tuesday, October 2, 2 p. m.

Renal and Ureteral Anomalies (Lantern Demonstration) (30 minutes).

PETER P. MAYOCK, Wilkes-Barre.

OUTLINE. Discussion of frequency as judged from necropsy; findings compared with modern diagnostic methods. Importance of excretory urography as an aid in diagnosis. Brief review of the embryologic development of the system to show its complexity as a factor in prevalence. Classification and study of types. Role played by anomalies in kidney pathology greatly underestimated. Why necropsy studies are fallacious in recognizing anomalies.

See also Scientific Exhibit.

Discussion opened by JAMES B. PURCELL, Wilkes-Barre.

Treatment of Tumor of the Bladder (40 minutes).

GEORGE G. SMITH, Boston, Mass. (Guest).

OUTLINE. A report of personal experiences with tumor of the bladder. Classification of cases from the clinical point of view, especially as regards treatment. The relative values of electrocoagulation and radium implantation, both transurethral and by open method, of resection and of total cystectomy, are discussed.

Discussion opened by STACY M. HANKEY, Pittsburgh.

Rupture of Kidney (Lantern Demonstration) (15 minutes).

THOMAS C. STELLWAGEN, Philadelphia.

OUTLINE. Incidence and causes in relation to accidents. Symptoms both immediate and delayed. Symptoms, special reference to hematuria. Early decision as to course to be followed very important. Watchful waiting or exploration. Choice of operative approach. Dangers associated with delay. Some of the misleading views in hemoglobin estimation. End results and possibilities in cases in which severe trauma has been inflicted, accompanied by perirenal hemorrhage.

Discussion opened by EDWARD J. McCAGUE, Pittsburgh.

Nephritis and Calculus Formation and Their Relation to Urinary Anomalies (Lantern Demonstration) (15 minutes).

HENRY SANGREE, Philadelphia.

OUTLINE. Includes a study of 50 cases—operative and post-mortem; 8 cases of calculus formation in 35 cases of horse-

shoe kidneys: 5 cases of anomalous kidneys; 3 cases of single kidneys.

See also Scientific Exhibit.

Discussion opened by DAVID MORGAN, Philadelphia (by invitation).

Stricture of the Ureter and Its Treatment (15 minutes).
BURRIS M. HANCE, Easton.

OUTLINE. Definition, types, etiology, pathology, associated pathology, symptoms, diagnosis, treatment, case reports, follow-up on cases reported.

See also Scientific Exhibit.

Discussion opened by DAVID L. SIMON, Pittsburgh.

Wednesday, October 3, 2 p. m.

Report of Executive Committee—Election of Section Officers.

Anuria as a Surgical Complication (Lantern Demonstration) (20 minutes).

FRANCIS G. HARRISON, Philadelphia.

OUTLINE. Discussion of causative factors of anuria developing as a surgical complication with results of operative and non-operative treatment in the attempt to remove the cause.

Discussion opened by JAMES E. McDOWELL, Pottsville.

Differential Diagnosis of Genital Lesions (Lantern Demonstration) (15 minutes).

DAVID P. McCUNE, McKeesport.

OUTLINE. Based on experiences in the genito-urinary outpatient department of a hospital in a small industrial city. Attempt should be made to aid the practitioner and interns in early diagnosis and treatment of genital lesions. Importance from standpoint of both public health and the individual affected.

Discussion opened by WILLIAM HUTCHISON, McKeesport.

Renal Tumors in Children (15 minutes).

JAMES J. LEE, Pittsburgh.

OUTLINE. Incidence. Varieties. Review of records of Children's Hospital. Pathological characteristics. Clinical features. The value of cystoscopy and urography as an aid in the differential diagnosis. Brief reports of cases. Prognosis. Treatment.

See also Scientific Exhibit.

Discussion opened by ROBERT L. ANDERSON, Pittsburgh.

Malignant Tumors of the Kidney (Lantern Demonstration) (15 minutes).

LEO P. GIBBONS, Scranton.

OUTLINE. History; special reference to the length of time some have lasted before treatment was sought; the length of time after treatment was sought in some cases before a urological study was made; diagnosis; and a review of the treatment.

See also Scientific Exhibit.

Discussion opened by MILTON I. PENTECOST, Scranton.

Lymphogranuloma Inguinale (15 minutes).

SAMUEL L. GROSSMAN, Harrisburg.

OUTLINE. Historical statement and definition of the disease. Its etiology and pathology. The clinical symptomatology divided into three stages with cases illustrative of each stage. The Frei test and its application in diagnosis. The differential diagnosis from various other conditions involving the lymph glands. Is the disease more common or is it being more frequently recognized because of the Frei test and the many discussions of the condition? The treatment is rather unsatisfactory.

Discussion opened by JOHN OENSLAGER, JR., Harrisburg.

Case Reports

1. Spontaneous Rupture of a Hydronephrotic Kidney.

RALPH P. BEATTY, Uniontown.

2. Unusual Foreign Body in the Urethra with Technic of Removal.

STANLEY Q. WEST, Philadelphia.

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

REPORT OF PROGRESS

Made on Building Improvements at 230 State Street, Harrisburg, Pa.

The Building Improvements Committee of the Board of Trustees reported as follows under date of July 9, 1934:

The architects—Lawrie & Green—state that during the past two weeks the progress made by the contractor and subcontractors has been very satisfactory.

Mr. Stapf, the general contractor, reports that all brick, structural, and cement work is completed. Two coats of plaster have been applied on all rooms and the walls are ready for the third and final finishing coat of plaster. Within a week Mr. Stapf expects the building to be ready for the wood trim.

The tenants who have occupied the apartments on the second and third floors of the building to be remodeled have moved and remodeling of the

old building has started. The architects expect the building to be so completed that the tenants may return to the apartments on October 1.

Within two weeks it is planned to transfer the offices now in use in the old building to two "committee rooms" in the new building. These new rooms, at that time, will be finished with doors and windows so that they may be securely locked.

Metal library stacks for the fireproof vault in the basement will be installed soon. This will permit the transference of the past issues of the JOURNAL which have accumulated in the basement of the old building and their assortment and placement in proper order on the stacks in the new building.

THE 1934 ROSTER

The annual Roster of the members of The Medical Society of the State of Pennsylvania

has just been printed and distributed to the officers and various committee chairmen of our State and County Medical Societies. This list is correct to July 15, 1934, and contains the names and addresses of the members of our 60 component societies listed alphabetically by counties as well as the names of their officers and committeemen. Included also will be found the names of the officers, members of the Board of Trustees, committee chairmen, *etc.*, of the State Society, as well as its past presidents and secretaries; a list of the annual meeting places of the State Society since 1848 with registered attendance at each meeting; and the names of members who have died since July 1, 1933.

Any member of the Society desiring a copy of the Roster may obtain same by writing to the JOURNAL Office, or to the office of the Secretary of the Society.

WORTHWHILE ACCOMPLISHMENTS OFTEN REQUIRE FINANCIAL OUTLAY

The Regional Cancer Meeting for Western Pennsylvania held in Altoona, June 28, 1934, under the auspices of the Cancer Commission of The Medical Society of the State of Pennsylvania, cost our Society \$500.74. The attendance upon the various sessions of the day, to which the public were invited, has been estimated as follows: Total physicians registered, 350; attendance at afternoon session, 1500; at evening meeting, 800.

Query—Was the above expenditure for printing, postage, and travel expenses of 7 speakers, members of our Society, and two guest speakers, Drs. Eugene R. Whitmore and George Crile, of Washington, D. C., and Cleveland, respectively, a good investment? Our own answer is decidedly in the affirmative. That you may answer the question for yourself, however, we give you opportunity to read a current editorial which appeared in the *Altoona Tribune*, for June 29, 1934.

Attention is also respectfully called to an article by Dr. J. M. Wainwright, of Scranton, for more than 25 years Chairman of our State Society's Commission on Cancer, under the title "Is Cancer Education Effective?" on page 831 of the July PENNSYLVANIA MEDICAL JOURNAL.

It is apparent that the total expense of the Cancer Commission for this fiscal year will completely absorb their budget of \$1250. Since 1927, expenditures for our Society's Standing and Special Committees, exclusive of Scientific Work, have averaged \$6000 annually. New

committees at work under considerable expense for travel, printing, postage, *etc.*, which have not been included in the above average, are the Committee on Medical Economics, Committee on Workmen's Compensation Laws, Medical Advisory Committee to State Emergency Relief Board, and Committee on Appendicitis Mortality. Committees proposed for consideration by the 1934 House of Delegates include a Special Committee on Physical Therapy and a Commission on Maternal Welfare.

The Scientific Exhibit alone at the Wilkes-Barre session will cost \$1350, double any previous similar expenditures. We estimate that total expenditures of Standing and Special Committees, *exclusive* of Scientific Work (which includes the Scientific Exhibit), for the fiscal year 1934 will total \$8750, or \$1.14 of each member's State Society dues of \$7.50. This amount expended from each member's annual dues is practically devoted to the protection of the health legislative interests and the reduction of morbidity and mortality among the people of Pennsylvania.

The accomplishments of such committees as Public Health Legislation, Cancer Commission, Appendicitis Mortality, and Public Relations (the latter with its daily and weekly Health Column published at the present time in 54 daily and 81 weekly newspapers throughout the State in the name of the various component county societies, reflect great credit on our various component societies and their membership. The activities of such committees can not be discontinued without great loss of prestige and a retreat from one of the high purposes of our organization, namely, to "*direct public opinion in regard to the problems of public health and hygiene, so that the profession shall become more useful to the public in the prevention and management of disease and in prolonging and adding to the comfort of life.*"

If editorial opinion throughout Pennsylvania coincided with the following from Altoona, would we need to be greatly concerned about sociologic interference with medical practice?

DOING A SPLENDID JOB

The Cancer Meeting held yesterday for the benefit of both the medical profession and the general public is new evidence of the physicians' constant efforts to extend and improve their services to humanity. It is a spontaneous exhibition of their attitude of public service, undertaken without motives of profit to themselves.

Such splendid educational features as yesterday's meeting furnish absolute proof that there is no need to socialize medical care, as is advocated by outsiders in some quarters. Physicians are already socially-minded; the extent of their charity toward the poor

is nearly unlimited, and the value of their unselfish research can not be computed.

Through the advance of medical science, there has been steady progress in the prevention of diseases, in the prolongation of human life, and in the relief of suffering. The material rewards received by the profession in general have not increased in proportion to the increased benefits of the science.

Every day brings new evidence that the medical profession is the most humanitarian of all organizations. The profession is far ahead of its reformers. The one group in American whose house is clean and in order is the medical profession.

Let the different business and social groups confine themselves to their own problems until they can make an equally favorable showing. Let the welfare workers advocating the socialization of the profession recognize the achievements of medical men at their true worth.

Then the steady and amazing progress the profession has shown during the past century will continue to unimaginable success. Interference with the profession from outside sources may result in disorganizing the carefully erected and complex structure of medical knowledge and practice, with disastrous results for the public.

The doctors are doing a good job. Don't get in the way!—(Editorial) *Altoona Tribune*, June 29, 1934.

HOSPITAL GROUP INSURANCE

FACTUAL REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

The following report is submitted so that the members of The Medical Society of the State of Pennsylvania may read for themselves what is being done in other states and judge for themselves whether they approve or disapprove. The writer—Dr. Max H. Weinberg, visited Cleveland, Ohio, on June 29, 1934.

Cleveland Plan

The Cleveland Hospital Insurance Plan is, in a sense, an extension of the activities of the Cleveland Hospital Council, which has been in existence for eleven years. Fourteen leading Cleveland hospitals, all members of the Community Fund, have formed the Cleveland Council. The Council acted for these hospitals in purchasing supplies, etc. It was but one step in its further development to provide hospital insurance. In this respect it differs from the Washington (D. C.) Plan (see July *PENNSYLVANIA MEDICAL JOURNAL*, p. 852) which was evolved as a community affair because of one hospital having attempted to sell hospital insurance as a result of a plan submitted by professional salesmen.

The Cleveland Plan has been approved by the Cleveland Academy of Medicine, which is the name of the Cuyahoga (Ohio) County Medical Society.

The Board of Trustees of the Cleveland Hospital Service Association consists of 24 men, who represent 3 bodies; namely, the hospital, the medical profession, and organized labor. Twenty-one representatives are from the membership of the hospital boards; 2 physicians, members of the Cleveland Academy of Medicine, and one member is a representative of the Cleveland Labor Union.

The policy of the Hospital Service Association is to be extremely careful in adhering to the medical point of view. The management stresses particularly 2 points; namely, that it is a nonprofit organization, and that no subscriber may be hospitalized without the recommendation of his personal physician. This, they think, will obviate the charge that the hospitals are interested in the practice of medicine.

The Hospital Service Association obtained a loan from the Welfare organization for one year. The hospitals in the plan are to make up any deficit that may arise during the year. On the other hand, should there be a surplus, this is to be passed on "in service" to the subscribers, either in increase of hospital days per year, or a reduction in the annual charge for hospital service for the coming year.

The Cleveland Plan offers 2 types of contract; one for ward service at the premium rate of \$7.20 per year, and one for semiprivate service at the rate of \$9.00 per year. According to Dr. George E. Follansbee, a member of the Board of Trustees, there was considerable difference of opinion regarding the advisability of having 2 rates, but it was finally decided upon as most desirable.

Hospital service includes the usual service that most similar hospital plans have adopted, with one exception; namely, maternity cases, which this insurance plan, unlike the others, does not include. It does offer bed and board, general nursing, and technical roentgen ray, excluding medical interpretation. Operating service includes anesthesia if administered by a salaried employee of the hospital, routine laboratory service, and ordinary drugs and dressings. The last 2 items have not as yet been finally defined.

The following conditions have been excluded in addition to maternity cases: Psychoses, pulmonary tuberculosis, contagious diseases, and Workmen's Compensation cases.

The plan offers protection to employed workers only, and only groups of 10 or more workers from one establishment are accepted. For the time being, individuals, members of the subscribers' families, or even groups of workers numbering less than 10 are not insurable under this plan.

The hospital is to receive from the fund \$4.50 per day for ward service, and \$6.00 per day for semiprivate service rendered a subscriber. Should the subscriber desire a better type of accommodation, he is given a credit on his bill of fifty cents less than the rate above mentioned. Twenty-one hospital days during any one year is the maximum allowed each subscriber, and no reduced rate for any longer stay in the hospital that he may require. Most other hospital plans allow at least 10 per cent reduction for such additional hospitalization.

Any literature to be used by the manager of the plan is to be approved by George E. Follansbee, M.D., a member of the Board of Trustees.

The writer of this report submitted a few questions to Mr. John A. McNamara, executive director of the Hospital Service Association, as follows:

Q. 1. How did you arrive at the actuarial figures?

A. "The answer is in the introduction of the booklet."

The booklet referred to, under the heading "Actuarial Data," states the following: "The actuarial features of the program are based upon studies of the cost of hospital care made by the American Hospital Association; Mr. Raymond Clapp, of the Cleveland Welfare Federation; and Mr. Homer Folks, secretary of the State Charities Aid Association of New York. These studies indicate that the population in cities comparable to Cleveland requires an average of approximately 850 days of hospital care per 1000 persons per annum. In other words, slightly less than one day of hospital service per capita per annum is required. Experience of the Cleveland hospitals confirms these figures. It is estimated, for the purpose of the Cleveland program, that one day of hospital service per subscriber per annum will be required. At the rate of \$4.50 per day for ward service and \$6.00 per day for semiprivate room service, it is believed that the annual charges of \$7.20 and \$9.00, respectively, will be ample to cover promotional and administrative costs, and to allow a margin of safety for unforeseen demands."

Q. 2. How do you expect to take care of the load involved in the so-called catastrophic sickness that financially is backbreaking to the ordinary individual of low income, when you limit the hospitalization to 21 days in a year?

A. "The question probably is pertinent, but we are in the experimental stage."

Q. 3. Is there not interference with hospital organization and hospital medical practice under this plan? In other words, will there any longer

be, in a true sense, a distinct hospital visiting staff?

A. Mr. McNamara referred me to Dr. Follansbee for an answer to this question. Dr. Follansbee answered the question to the effect that any hospital that signs under this plan will have opened its wards to the physicians in general.

Q. 4. Is not this plan after all a means of raising revenue for the hospitals from the lower income groups?

A. Mr. McNamara thinks this would be true if a single hospital had engaged in it as a purely commercial venture, or if solicitation of subscribers was put on by professional sales people on a commission basis; but since neither obtains in the Cleveland plan, he thinks that the criticism does not apply.

Dr. Follansbee, on the other hand, readily admitted that the beginning of the plan was with the idea of raising revenues for the hospitals, but said he personally sees an opportunity for making people economically in the borderline group more nearly self-supporting, thus keeping them off the hospital charity lists, with more money to pay their attending physician, and for such reasons he considers the plan worth while.

Comments and criticisms on the plan will be incorporated in the committee's report to the 1934 House of Delegates.

Committee on Medical Economics,

EDWARD L. BORTZ, Philadelphia,
WALTER S. BRENHOLTZ, Williamsport,
LEONARD G. REDDING, Scranton,
MAX H. WEINBERG, Pittsburgh,
PHILIP J. LUKENS, Ambler, *Chairman.*

WAYNE COUNTY MEDICAL SERVICE PLAN

(The Detroit or Pino Plan)

This plan is an attempt on the part of the Wayne County Medical Society (Detroit, Michigan) to meet the needs of the economic borderline workers to obtain medical services whenever needed, same to be paid for on the installment plan. The writer, Dr. Weinberg, by appointment visited Detroit on June 30, 1934, for the purpose of studying the Pino Plan in operation, meeting the personnel of the Bureau, studying its methods as they are applied in daily practice, and obtaining an answer to any question that might arise.

Before I go into the details of the plan itself I wish to state that the reception afforded me was extremely cordial. Both the Manager of the Bureau, Mr. Read, and the Executive Secretary, Mr. Burns, extended themselves to be help-

ful and were eager to listen to any criticism offered.

Considering the fact that the Bureau has not yet contacted the public at large, but contacted only personnel officers of large industries, the office of the Bureau is an extremely busy place. Mr. Read, during my visit, was constantly being called to the telephone by various personnel officers regarding problems that came up in connection with the service offered. During such times I had a chance to observe him at his work, and jotted down a few notes regarding him and his methods. He seems to be a genial man, who has quite a grasp of the (a) social situation; (b) method of approach to industry—he has already made many contacts in a highly satisfactory manner; (c) the medical point of view, which is essential; (d) needs of the people who must avail themselves of the services offered.

As an example of some of the difficulties encountered by the Bureau and the hold which it already has on the people, and especially industry, this example will best illustrate: A few of the hospitals in Detroit, mostly the smaller units, seem to have offered considerable opposition to the plan, and even those who were willing to cooperate fully with the plan have had difficulty to arrive at a definite hospital service cost. Mr. Read conceived the idea of gathering a group of about six expert accountants from industry to constitute a committee to study hospital costs with him. During the four hours that I spent with him three of Detroit's leading manufacturing representatives called up and he asked them to lend an accountant for this purpose. He made it quite plain that he wanted a high class man, preferably one who holds an executive position, an expert in cost accounting and a man of social vision. The request was freely granted in each case. This certainly illustrates a fine spirit of cooperation and the deep interest the community takes in the enterprise. No small amount of credit is due, I believe, to the tactfulness as well as the business ability of Mr. Read, and also of Mr. Burns, who, as Mr. Read says, is really the liaison man between the Bureau and the public.

THE PLAN

The Board of Trustees of Wayne County Medical Society have sponsored the plan financially.

The plan has been in operation about 4½ months, and has handled about 650 cases, most of them major cases. Taking into consideration the fact that no publicity has been released generally, with one exception, as yet, one must consider this a fine start. So far only personnel

officers of large industrial plants have been contacted.

As stated, the purpose of the plan is to take care of economically border-line cases, that is, persons who have just returned to work and merely make a living, but have no financial reserve. This is done by providing an easy payment plan for medical services. The payment may extend over a period of one year. An example of the plan and how it is described to the public is the one bit of publicity to the employees of the Briggs Manufacturing Company in *Brigg's Assembler*, Vol. 1, No. 5, May, 1934.

The Bureau realized early in the development of the scheme that the service in order to be appealing had to be complete. Under the term "service" the Bureau includes medical and surgical care, dental care, nursing, hospitalization, and drugs.

The Bureau has, at the time this report is written, approached all the professional groups that are to participate in rendering service.

The physicians and dentists are in full agreement with the plan. Druggists also agree, but this differs somewhat, due to the difficulty with the druggists arising from the more commercialized units, particularly the chain stores. Hospitals also are recalcitrant, more or less probably, in the opinion of Mr. Read, because they are accustomed to collecting their money first. However, most of the hospitals joined the Bureau, except three minor hospitals which are still out of the fold.

The interests of the various groups are being taken care of by a Board of Arbitration, which is composed of three representatives of each of the groups. Any complaint or problem that arises in connection with any part of the service is reported to the representatives of that particular group.

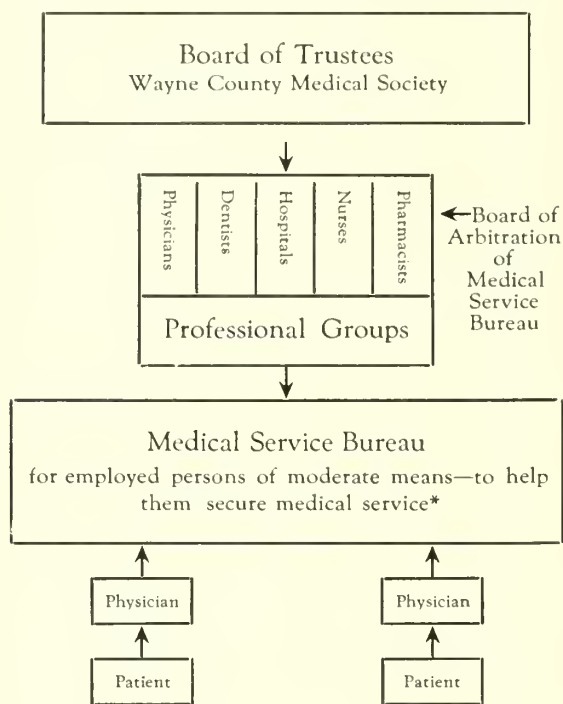
The method of obtaining the service is as follows: The client applies to the office of the Bureau. He may apply to the physician first who in turn may refer him to the Bureau. The accompanying diagram sketched by Mr. Burns illustrates the entire set-up graphically (p. 952).

The Family Doctor is the First Diagnostician.—If other type of service is needed, such as roentgen ray, hospital, etc., the matter is referred to the Bureau for handling.

The Doctor in Turn has Free Choice of Hospitals and Specialists.—Mr. Read regards this as important because it does not upset professional relationship.

All bills for services rendered are sent to the Bureau. The bills are calculated and adjusted from the standpoint of the low wage-earning in-

dividual. Mr. Read gave the following example: Suppose the total bill is \$100.00, and the man is able to pay but \$1.50 per week. Since it is the intention of the plan to have him pay the bill within one year, it may be reduced to \$75.00.



This action is subject to approval by the Board of Arbitration. In other words, the Manager of the Bureau, when circumstances justify, may reduce all charges proportionately, subject to action of such Board.

Allotment of payments received, *e. g.*, \$1.50 weekly: first 10 per cent (15c.) to Bureau; 50 per cent of balance (68c.) to hospital; the balance (67c.) distributed proportionately to the units (dentist, private nurse, physician) contributing service.

The Bureau makes payments monthly.

If a patient fails to pay, the account becomes a bad debt. Mr. Read, in answer to my inquiry, agrees that it is fair to say that *pressure to pay through the patient's employer is used*. However, if he is actually found to be unable to meet installments no pressure is used.

Assignment of wages by means of payroll deductions to a specified extent is frequently made by the subscriber to the service.

The personnel of the Bureau at present with headquarters in the County Medical Society Building is that of a Manager, Executive Secretary, and two office assistants. For the present, it is a mere skeleton organization.

Mr. Read speaks of three problems confronting the plan:

1. It has to be popularized—that means that a sales force is needed.

2. Investigation: (a) Registration and office investigation of applicants; (b) outside investigation.

3. Accounting, bookkeeping, and collection problem.

Application Blank for Medical Service Under Detroit Plan

		Case No.	
Last Name	First Name	Date Filed	
Present Address		How long?	
In Detroit since	Color	Nationality	
Age	Dependents	Marital Status	
Own Rent	Buying Room	Monthly Rent or Payments \$	Months in Arrears
Landlord's Name		Address	
Experience of Landlord			
Employed now by		Dept.	How long?
Trade or Occupation		Badge No.	Monthly Income \$
Previous Employment		As	How long?
Experience of Employer			
Trade References—Charge or Installment Accounts.			
Name		Address	
Name		Address	
Name		Address	
Relatives:	Name	Address	
Father-Mother			
Brother-Sister			
Wife's Father or Mother			
I carry \$	Life Insurance with	Co.	
Family Physician			
Other Physician			
Present Illness			
Have you accepted Charitable Aid?	From whom?	Welfare Zone and No.	
Remarks			
Are you able to pay a reduced fee?			
If so, how much can you pay per month?			
Investigator's Remarks			

The undersigned warrants the truth and accuracy of the above information which was given for the purpose of obtaining medical relief through the Wayne County Medical Society, and further consents to his physician informing the Medical Service Bureau of the Wayne County Medical Society of his findings and diagnoses in his case.

Referred to Dr.
Referred to Hospital

Following are questions submitted by the writer to Mr. Read, and his replies. One or two of the questions were answered by Mr. Burns.

Q. After all, this is merely an installment plan with all its attendant ills.

Ans. Largely true, but the plan goes further in that the man's financial ability is taken into consideration; rather, that there is the traditional method of the professional approach to the needs of the individual, and

* "Medical service," as used throughout this report, refers to service of physicians, dentists, hospitals, nurses, pharmacists.

so far we managed to arrange to grant him the needed service, and in certain cases we even offered free sickness service. (Detroit hospitals as a rule do not give free service, receiving no state aid.)

Q. Does not this plan also tend to commercialize medical practice?

Ans. Does not think so. Read thinks that people do not appreciate the doctor's services rendered free. Cites examples that prove that all complaints arising from associated services are charged up by lay people to the physicians. Besides, feels that the doctor also should benefit from the plan.

Q. What are the chances of success for this plan, since it is a voluntary effort, and it is the usual experience with this type of work that voluntary efforts usually fail?

Ans. Thinks chances are excellent. No opposition encountered except mild from some hospitals.

Q. Is not the employer relationship—pressure to pay—a drawback?

Ans. Thinks that whatever pressure is used is minimal, and that contracts after all are voluntary on the patient's part, just the same as he contracts for anything else—his radio, food, or what not. Ordinarily the ailment treated is not mentioned.

Q. I countered we are dealing with strictly personal matters, that illness is forced upon the individual and is not a matter of free choice as are the other transactions mentioned.

Ans. Agrees it is true, but if he were to go to the bank for a loan he would have to tell his story also, *but on the other hand this plan provides service at all events, pay or not, and we thus maintain the traditional medical service point of view.*

Q. Why did you find it necessary to make service complete, and should we consider drugs to be an unbearable burden?

Ans. Thinks complete service is essential, because (a) The four professions are intermingled so much that giving but one type of service would be like furnishing a "stool with one leg." (b) As to the question of drugs, "What good does it do to prescribe medicine for me when I have no money?" It is the time element—a man between pay days may not have even the small amount of money required for drugs.

Q. What about the relation of employer to employee interference? What is the medical point of view on that?

Ans. Such a situation has not developed yet, but I can see how it could happen. The natural inclination of the employer is not to tamper with employee pay, but I find that both employer and employee feel that this is a center in which the employee can get a very vital necessity, and they are very grateful to organized medicine for supplying it.

Q. What about the other classes who may need medical attention, such as your class 2 or 3?

Ans. No. 2 is already taken care of by organized charity. No. 3 is taken care of if it is clearly a medical matter without hospitalization through Wayne County Medical Society Relief which may later be combined with this bureau. We have 1000 physicians co-operating in this latter service. The dentists have a similar bureau.

If it is a major illness the State of Michigan through its Affiliated Child and Adult Laws provides hospitalization for such patients. The State pays a stipulated per diem rate of \$3.50. The doctor's service is not being paid for in the Relief Plan. The hospital applies to the Probate Court for its pay.

Q. Have not the social workers objected to your

Bureau handling these problems? (Mr. Read refers to Mr. Burns for the answer.)

Ans. Officially no. Unofficially, very much.

Recently a survey made by Dr. Haven Emerson and Gertrude Sturgis found so much wrong with clinics that social workers are busy cleaning their own house, and now they are eager to learn all about this plan.

Q. Have you had any reaction from an ardent proponent of socialized medicine, such as Dr. Luce?

Ans. All Dr. Luce desires is that the medical profession should have a plan, be it the Luce-Sinai Plan or the Pino Plan.

Q. Can not the hospital by force of public and medical opinion be made to go along, so to say, in the plan?

Ans. Yes, decidedly. (Read furnishes the information that the hospitals of Detroit have put themselves on the Industrialists' Necessity List, whereby the employer makes a loan to his employee needing hospitalization. This accounts for their objections to the Pino Plan.)

Q. Does not this seem to interfere with the relation of physician and hospital?

Ans. By Mr. Read. In certain instances, yes; that is, in those hospitals that refuse to coöperate. At times we had to shift some patients from one hospital to another. It really is something that takes place in the transitional period. Once they have all come in it will be ironed out.

Q. What about coöperation from industry?

Ans. By Mr. Read. No industrialist or large employer turned us down, in fact we were welcomed. Read was surprised at the degree of interest shown. They are especially willing to coöperate with our single center for all forms of sickness service. Employers approach the problems from three different angles:

1. Employee Loan Group. This group of industrialists does not want a man who works for them to incur debt. They say "make charges for services as reasonable as possible and send the bill to us." They will lend the worker the amount of the bill.

2. Wage Assignment Group. No industrialist really favors wage assignments, but in this case, because of social implications, they have consented to make regular payroll deductions and send them to the Bureau, especially because it saves the employee's time and a certain amount of carrying charges, which may amount to as high as 10 per cent.

3. Moral Persuasion Group. They are willing to coöperate in helping to collect from the employee. Coöperation in Group 3 is just as good, but it is more troublesome for the employee.

Q. How do you handle losses that are inevitable?

Ans. The loss falls on those who furnish the sickness service.

Q. Have you limited this plan to an actual limited income group?

Ans. Yes. Our only difficulties have been with some persons who demanded better hospital accommodations, and in that case they were told to meet the hospital bills themselves.

Comments and criticisms of the plan will be incorporated in the Committee's Report to the 1934 House of Delegates.

Committee on Medical Economics,

EDWARD L. BORTZ, Philadelphia,
WALTER S. BRENHOLTZ, Williamsport,
LEONARD G. REDDING, Scranton,
MAX H. WEINBERG, Pittsburgh,
PHILIP J. LUKENS, Ambler, *Chairman.*

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence make grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary, Beaver County Medical Society	\$100.00
Woman's Auxiliary, Delaware County Medical Society	125.00
Woman's Auxiliary, Fayette County Medical Society	25.00
Woman's Auxiliary, Montour County Medical Society	10.00
Woman's Auxiliary, Northampton County Medical Society	100.00

Total contributions since 1933 report\$1,840.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to July 13:

ALLEGHENY: *New Members*—Francis P. Kenney, Westinghouse Bldg.; Margaret L. Littler, Ruskin Ave.; Paul A. Murray, 1434 Fifth Ave., Pittsburgh; Milton Mermelstein, 602 Locust St., McKeesport. *Reinstated Members*—Walter H. Deer, 2707 Brownsville Road; Benjamin L. Jones, 620 Warrington Ave.; John J. Weber, 2120 Carson St., Pittsburgh; Howard R. Weddell, 309 Olive St., McKeesport. *Removal*—Robert R. MacDonald from Cleveland, O., to Children's Hospital, Cincinnati, O.; Wm. H. Wesley from Pittsburgh, to Clymer, N. Y. *Death*—Charles J. Devlin, Swissvale (Jeff. Med. Coll., '16), June 20, aged 46.

BEDFORD: *Death*—Harry I. Shoenthal, New Paris (Jeff. Med. Coll., '06), July 10, aged 52.

BLAIR: *New Member*—Charles E. Shope, 1213 Thirtieth Ave., Altoona.

CAMBRIA: *Resignation*—Louis F. Knoepp, Rochester, Minn.

CHESTER: *New Members*—Clarence P. Kistler, West Chester; Frederick A. Riemann, Parkesburg.

DELAWARE: *Death*—Daniel J. Monihan, Ridley Park (Med. Chi. Coll., Phila., '07), June 28, aged 53.

HUNTINGDON: *Death*—Frank L. Schum, Huntingdon (Univ. of Pa., '86), June 25, aged 69.

INDIANA: *Removal*—Edward F. Shaulis from Indiana to R. D. 6, Somerset (Somerset Co.).

LYCOMING: *Death*—Louis E. Langley, Williamsport (Univ. Md., '10), May 31, aged 50.

MERCER: *New Member*—Victor M. Leffingwell, 249 E. State St., Sharon. *Death*—Charles I. Walker, Sharon (Univ. of Pgh., '01), recently, aged 65.

MONTGOMERY: *New Members*—John B. Polansky, Glenside; George A. Bayer, Pottsville. *Reinstated Member*—Thomas H. Powick, Pottstown.

NORTHAMPTON: *New Member*—Richard O. Rex, 7 S. Robinson Ave., Pen Argyl.

NORTHUMBERLAND: *Removal*—John E. Romig from Dalmatia to Duncannon (Perry Co.).

PHILADELPHIA: *New Members*—Wilbur L. Archer, Jr., 1001 S. 13th St., James S. P. Beck, 36th and Spruce Sts., Jesse W. Beeghley, Green and Coulter Sts., Gtn., Eleanor H. Balph, 1930 Chestnut St., Abraham I. Baron, 6238 N. Tenth St., S. Lincoln Baron, 731 W. Rockland St., Oscar E. Boericke, 2015 Wallace St., Francis J. Braceland, 4401 Market St., Russell J.

Brennan, 6100 Walnut St., William G. C. Brannon, 2404 W. Cumberland St., Miriam Butler, 1831 Chestnut St., Joseph L. Candido, 338 E. Price St., Angelo J. Caracciolo, 1623 Womath St., Benjamin Cooper, 2408 S. Fifth St., Solkin C. Copeland, 5740 Florence Ave., Nathan H. Colton, 1200 Frankford Ave., John M. Cruice, 406 S. 22d St., Marie E. Currie-Frey, 105 E. Upsal St., Donald G. Davidson, 3228 N. 15th St., Pasquale G. Damiani, 160 E. Allegheny Ave., William H. Deardorff, 5049 Hazel Ave., Yetta E. Deitch, 6463 N. 17th St., Ralph L. Drake, 7207 Cresheim Road, Joseph D'Emilio, 1328 S. 15th St., Harry M. Eberhard, 20th and Chestnut Sts., Edmund E. Ehrlich, 1420 N. 16th St., James M. Ellzey, Jr., 8864 Gtn. Ave., Chestnut Hill, Douglas L. Freelon, 2023 Bainbridge St., Thomas C. Garrett, 5301 York Road, Edwin O. Geckeler, 269 S. 19th St., George D. Geckeler, 269 S. 19th St., Horace W. Given, 3401 Wharton St., Warren C. Goodwin, 3740 Powelton Ave., William B. Griggs, 1326 N. 12th St., William B. Harer, 1900 Rittenhouse Square, H. Brooks Harvey, 63d and Jefferson Sts., Frank W. Hauser, 3527 Kensington Ave., Hugh Hayford, 4149 N. Broad St., Lester H. Hergesheimer, 2808 Midvale Ave., Jonas E. Heyser, 1808 N. 18th St., Henry A. Haskell, 626 N. 39th St., George A. Hopp, 516 Burnham Road, Ignatius S. Hneleski, 34th and Pine Sts., Morris N. Kallen, 5617 Spruce St., Morris Kesilman, 5000 N. Eighth St., Harry N. G. Kline, 1331 Ruscomb St., William Klinman, 3593 Indian Queen Lane, Alexander Koppel, 4068 Roosevelt Blvd., Frederick Harold Krauss, 1930 Chestnut St., Orlando A. Lazaro, 1521 S. 13th St., Joseph Levitsky, 4162 Girard Ave., Rubin M. Lewis, 4300 Chestnut St., M. August Lindauer, 5901 Warrington Ave., William M. McFadden, Jr., 222 Harvey St., Gtn., John E. Medley, 1730 Diamond St., Rose R. M. Mikelberg, 2026 Pine St., Margaret R. Milligan, 752 N. 40th St., Maurice M. Malen, 2100 Walnut St., Charles F. Nichols, 285 Oak Hill Road, Cynwyd, Samuel Padgett, 627 Ritner St., Paul H. Raeder, 318 S. 16th St., Thomas K. Rathmell, 4312 Walnut St., C. Fred Rau, Second and Wyoming Ave., Charles L. W. Rieger, 1304 Rockland St., Isaac H. Rigberg, 333 Elwood St., Albert R. Rihl, Jr., 2355 E. Susquehanna Ave., Charles H. Robelen, 1200 S. 52d St., Ernest L. Rosato, 2969 Belgrade St., Harry A. Salzman, 710 Atwood Rd., S. Morrisson Saltus, 2027 N. 17th St., Benjamin P. Seltzer, 3024 Richmond St., Maurice Seltzer, 7967 Castor Ave., Rosa B. Schub, 900 Gibson Ave., Lemuel T. Sewell, 816 S. 15th St., Robert M. Shirey, 1727 N. 60th St., Samuel Simkins, 402 W. Spencer St., Shahin M. Shahinian, 5429 Lansdowne Ave., Maurice T. Sloane, 4156 Girard Ave., Maurice Silverman, 2437 W. Lehigh Ave., Kerman Snyder, 1606 N. 52d St., Walter J. Snyder, 418 S. 47th St., Ruth Stephenson, 37 Westview Ave., Gtn., Samuel M. Stern, 436 W. Roosevelt Ave., George E. Thomas, 1727 N. 15th St., James A. Thomas, 7008 Ogontz Ave., Joseph C. Tripp, 6101 Lansdowne Ave., Sydney Weinstein, 4300 Chestnut St., Martin H. Wendkos, 875 N. 41st St., Abel E. West, 1839 Bainbridge St., Harry Wexler, 424 E. Roosevelt Blvd., Ross B. Wilson, 4328 Pine St., Rudolph Winston, 5163 Haverford Ave., Philadelphia. *Reinstated Member*—Charles C. A. Banes, 2043 N. 12th St., Philadelphia. *Deaths*—Lillian A. Clark, Philadelphia (Woman's Med. Coll., Phila., '23), recently, aged 37; John P. Gallagher, Philadelphia (Univ. of Pa., '09), recently, aged 49; Samuel Moss, Philadelphia (Jeff. Med. Coll., '09), June 29, aged 58; Thomas C. Ross, Philadelphia (Med. Chi. Coll., Phila., '05), recently, aged 57; Joseph A. Moore, Philadelphia (Jeff. Med. Coll., '02), recently, aged 54; W. Newbold Watson, Philadelphia (Med. Chi. Coll., Phila., '92), July 1, aged 69.

SCHUYLKILL: *New Members*—Martin J. Patrick, Leo E. Pulaski, Shenandoah. *Reinstated Members*—Neal Dever, McAdoo; Otto A. Miller, Ashland; John F. Nash, Pottsville.

WASHINGTON: *New Members*—Jesse O. Arnold, Washington; James R. Bell, Canonsburg.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since June 14. Figures in first column indicate county society numbers; second column, State Society numbers:

1934

June 14	Lehigh	140	7435	\$7.50
18	Schuylkill	154	7436	7.50
20	Blair	98	7437	7.50
21	Lancaster	166-169	7438-7441	30.00
	Lawrence	68	7442	7.50
	Chester	101-102	7443-7444	15.00
22	McKean	40	7445	7.50
	Schuylkill	155-156	7446-7447	15.00
	Washington	113-114	7448-7449	15.00
	Lackawanna	223-224	7450-7451	15.00
	Mercer	75	7452	7.50
	Montgomery	171-173	7453-7455	22.50
	Delaware	143	7456	7.50
27	Venango	52	7457	7.50
July 1	Northampton	143	7458	7.50
	Allegheny*	1257-1275	7459-7477	127.50
	Allegheny*	1293	7770	7.50
5	Schuylkill	157	7478	7.50
	Luzerne	313-314	7479-7480	15.00
7	Lackawanna	225	7481	7.50
9	Berks	158-160	7482-7484	22.50
12	Schuylkill	158	7485	7.50
	Lackawanna	226	7486	7.50
14	Erie	146	7487	7.50
	Philadelphia	1813-1952	7488-7627	750.00
	Armstrong	45	7628	7.50
	Washington	115-119	7629-7633	37.50
16	Lackawanna	227	7634	7.50
	Westmoreland	152	7635	7.50
	Lehigh	141-142	7636-7637	11.25

* 1933 Dues.

COMMITTEE ON SCIENTIFIC WORK

RICHARD A. KERN, M.D., *Chairman*
Philadelphia, Pa.

PROGRAM OF THE SECTION ON DERMATOLOGY

Although psoriasis is one of the commoner skin conditions it is still the *bête noir* regarding management and therapy. Its origin is obscure, and depending on the concept we may have our treatment will vary. Because of its ubiquity and importance a discussion of its associated problems is always of interest. This year Park A. Deckard, of Harrisburg, will open the session, presenting a paper dealing with the clinical manifestations and newer approach to the treatment of psoriasis.

Charlotte Backus-Jordan, of Easton, will present a paper dealing with the modern theories of eczema attempting to clarify the hazy definition that it presents to many of us. Therapy will be discussed from the standpoint of both

general and special interest with the author detailing her experience with the use of splenic extract.

A review of current ideas in the etiology and summary of the methods of treatment in acne vulgaris will be taken up by Frederick Amshel, of Pittsburgh. Dr. Amshel has had considerable experience in dealing with acne and will likewise include a report of a series of cases treated with the roentgen ray.

A welcome innovation in the treatment of congenital syphilis has been the use of stovarsol. Donald M. Pillsbury and Henry H. Perlman, of Philadelphia, will report on their experience with the drug at the Children's Hospital, giving clinical summaries of fifty complete cases.

The symptomatology of pityriasis rosea together with a discussion of its clinical variations will be given by Thomas Butterworth, of Reading. The author will likewise discuss the several theories of its causation and modern method of therapy.

The meeting will be closed by Jacques P. Guequierre, of Philadelphia, with a lantern slide demonstration of the clinical varieties of ringworm as met by the practitioner in his daily office work. Dr. Guequierre will lay special emphasis on its prevention and treatment in the light of modern chemotherapy.

The section has been most fortunate in securing Howard Fox, of New York City, as its guest speaker for this year. Dr. Fox is limiting himself to diseases of the tongue. This will be illustrated by lantern slides and will be extremely instructive to any one interested in dermatology.

PROGRAM OF THE SECTION ON UROLOGY

The program for the Section of Urology at the Wilkes-Barre Session will extend through two afternoons, namely, Tuesday and Wednesday, beginning at two o'clock.

The Section is signally honored this year in having as its guest speaker, George Gilbert Smith, of Boston, president-elect of the American Urological Association. Dr. Smith will present a paper on the ever important subject, "The Treatment of Tumor of the Bladder."

The program in general will consist of a variety of subjects of interest. An effort has been made to keep the subjects within the range of practicability for this session eliminating the ultra-scientific, with the object of having material that will be of greatest benefit to physician and patient.

COMMITTEE ON PUBLICITY

LEWIS T. BUCKMAN, M.D., *Chairman*
Wilkes-Barre, Pa.

THE SCIENTIFIC EXHIBIT

This is addressed particularly to the larger numbers of the expected visitors to Wilkes-Barre in October who will come purely for clinical observation and discussion, and postgraduate instruction. Wilkes-Barre in October will offer a scientific exhibit surpassing anything that has ever before been attempted by The Medical Society of the State of Pennsylvania or by any other state medical society, and rivaling the exhibit of the American Medical Association. More than 95 different exhibits will be offered, more than ever before. As last year certain phases of the scientific exhibit will be connected directly with corresponding parts of the scientific program of the sections. A feature this year will be the group exhibits.

Prominent among these will be the fracture exhibit to be housed in the solarium of the Kirby Health Center. This will offer complete instruction in the most modern methods of treating fractures. Fractures of every bone in the body will be considered. Nothing of the sort has been attempted before at our State meetings.

This year the Committee on Scientific Exhibit hopes to make the visiting practitioners "feces conscious." This has its basis in the importance attached to the examination of the feces engendered by the outbreaks of amebic dysentery. It is an acknowledged fact that the examination of the feces is usually neglected, or if it is done, is useless by reason of lack of knowledge of technic or of the inefficiency in the application of known methods. Opportunity will be given for thorough instruction in the examination and in the interpretation of results. This exhibit will be unique in the annals of our State Society.

An exhibit on hemorrhagic diseases will present a new syndrome, chronic hypofibrinemia, differentiated from hemophilia. Methods will be given for the determination of blood clotting constituents, and the application of dietotherapy to bleeding and thrombotic tendencies will be demonstrated. The treatment of each hemorrhagic disease is to be given in terms of the clotting deficiency, qualitatively and quantitatively.

In the exhibit on birth shock of the newborn, it will be demonstrated that in the management of the newborn, the first procedure is to treat the shock consequent to the birth process. Every baby born reveals some degree of shock usually compensated. A solution has been devised, each constituent of which is corrective of the shock.

The method of administering the solution and the first feeding will be demonstrated graphically.

These outlines are examples of the wealth of information and instruction to be available only to those who attend in Wilkes-Barre next October.

You may remain at home and read later the published papers and discussions, but you must attend in person to reap the graphic benefits of the Scientific Exhibit.

**STATE SOCIETY GOLF
TOURNAMENT**

The members of the Golf Association of The Medical Society of the State of Pennsylvania earnestly invite and urge every member of the society who expects to attend the Annual Meeting at Wilkes-Barre to bring his golf clubs and play in the tournament, which will be held at the Fox Hill Country Club, Pittston, Monday, Oct. 1, 1934. The course is sporty, beautiful, with a splendid Club House, and excellent facilities.

The game of golf with its spirit of high sportsmanship and warm informalities has created thousands of close friendships and has aided individualistic man to reach a closer understanding of his fellows' point of view and ideas.

A profession is an occupation by which a man earns his daily bread and butter. An avocation is an occupation in which a man engages for his own entertainment. A man who devotes all his time and thought to his profession is as sure to become an intellectual dyspeptic as is the man who lives on a diet of pancakes alone to become a physical dyspeptic.

An avocation is absolutely necessary to the happiness of a man as is a change of diet to his stomach. A well-loved hobby, ridden in moderation, is a life-saver to any busy man. Do you know of a better hobby than golf? It means getting into God's out-of-doors, getting close to nature, fresh air, a sweeping away of mental cobwebs, genuine recreation of the tired tissues. It is a cure for care, an antidote to worry. It includes companionship with friends, social intercourse, opportunity for courtesy, kindness to an opponent. It promotes not only physical health but moral force.

You will make more friends on Monday, October 1, the day of the tournament, than you will the balance of the week and we need friends in the practice of medicine.

JOHN WELSH CROSKEY, *President,*
Golf Association.

THE SCIENTIFIC EXHIBIT

ANGELO L. LUCHI, *Chairman*,
Wilkes-Barre, Pa.

The Scientific Exhibit does not pay any dividends to those who do not visit it personally. Will a visit be worth while? Read the following questions and decide for yourself:

1. Have you any cases that present puzzling biochemical aspects?
2. Do you know what diet and drugs to use in the treatment of hypercholesterolemia?
3. What is phosphatase? Do you understand the interrelationships between phosphatase, calcium and phosphorus metabolism in health and disease? Is hyperparathyroidism of importance to the urologist?
4. Is there any relation between renal anomalies and nephritis?
5. Would you like to see and study perfect reproductions of normal and pathological blood and bone-marrow cells, *without eyestrain, in perfect comfort?*
6. Are you interested in how to conduct a vestibular examination?
7. Can you mention more than two animal parasites?
8. Would you like to know about the international units of vitamins and hormones?
9. What progress has been made in the control of diabetes?
10. What sins of commission and omission by the pathologists do undertakers hate most?
11. How many newspapers in the State publish an approved health column daily?
12. Can diet control chronic hemorrhagic states in childhood?
13. Are you satisfied with the conventional three leads in electrocardiography? Are you interested in direct leads?
14. Do you know how to test for patency of the peripheral vessels?
15. Does venous pressure interest you?
16. Did you ever realize the importance of a properly performed and interpreted examination of the stool?
17. Are you "ameba conscious"?
18. Have you any fracture problems?
19. Do you throw up your hands in despair when an arthritic patient consults you?
20. Are you able to give concrete, practical directions for improvising a baker, a whirlpool bath, a paraffin bath?
21. When and how would you prescribe "underwater gymnastics"?

These and hundreds of other questions of vital interest to each member of the profession will be graphically answered in the Scientific Exhibit.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg, Pa.

In an article by Dr. Alfred Stengel, published in the July number of this JOURNAL, p. 811, attention was called to the fact that 85 per cent of all cases of illness can be successfully treated in the home by the family

physician but to diagnose and treat a patient successfully the physician must take and record a complete history, past and present, the results of his physical examination, a working diagnosis, treatment given, followed by subsequent observation—notes, revision of diagnosis if necessary and the condition of the patient each visit. Dr. Stengel emphasized the effect the above procedure has upon adequate treatment and in reducing the cost of medical care.

In this JOURNAL, authoritative articles have been published outlining what would be considered adequate care as applied to relief cases, the adequate care being required by Federal Bulletin No. 7, the *Rules and Regulations*, and accepted by the physicians of the State by the official action of representatives of the State Medical Society.

Many medical orders are received which fail to satisfy the local advisory committee. Evidence that the patient received medical attention in accordance with the published outline and Dr. Stengel's article in some instances has resulted in reduction of bills for treatment rendered, on the grounds that the visits were excessive in number.

If clinical records of the same had been available, the claim of the physician in many instances would clearly be substantiated. This is of special importance, if the claim is to be approved, since the local advisory committee must comment favorably on the adequacy of the treatment and the necessity for the same if the bill is above the average or the total is large. The committee can comment favorably only if the claim is substantiated by clinical records. It is unfair to ask of them this special consideration regarding the adequacy of treatment and the necessity of the total number of visits unless substantiated by clinical records. In every instance in which the local advisory board, as a result of personal knowledge, has requested special consideration of a statement, it has been granted.

To quote from a report of the Committee on Maternal Mortality of the Obstetrical Society of Philadelphia and the Philadelphia County Medical Society: Of the 717 deaths, 639 were from causes relating directly to childbirth and 78 definitely nonobstetric. . . . As to obstetric care, the record showed that adequate care was furnished in 216 cases, inadequate in 193, and unknown care in 11 cases.

County Society Reports

BERKS

June 12, 1934

The meeting was held at 3:15 p.m., at the Wernersville State Hospital, Wernersville, with former president Louis J. Livingood presiding, approximately 60 members and guests present. The papers were read by members of the hospital staff.

Kenneth M. Corrin read a paper on "A Study of the Medulla Oblongata in the Convulsive States." Dr. Corrin said in part:

1. Mechanism of the Convulsion: We do not now consider every person who falls in a fit, an epileptic. Convulsions are widespread in the field of medicine. Reasoning from effect to cause every movement and symptom of the convulsion is the result of nervous stimulus. A symptomatic study of the convulsion shows that many of the nervous elements involved either enter or pass through the medulla oblongata. Clinical and

experimental observations suggest suddenly produced intracranial pressure present in the early part of the convulsion. Patients and experimental animals, if studied during the convulsion, show a definite circulatory phenomenon. Briefly, this is an increase in heart sounds, pulse and blood pressure, leading up to the clonic stage. As this phase sets in, the heart sounds become rapid and feeble, pulse is feeble, often absent, and the blood pressure drops. This and other findings suggest that the cause of the suddenly produced intracranial pressure is vascular in origin.

2. Experimental Observations Relating the Convulsion to the Medulla: One of his experimental cats had repeated severe convulsions, lasting over several hours, and died from exhaustion of status epilepticus. The medulla was swollen and injected. The entire picture suggested trauma of this area. The remainder of the brain showed nothing grossly, other than a generalized hyperemic congestion. Pathologists report that marked dilation of blood vessels and perivascular hemorrhages occur throughout the brain and especially in the bulb. The medulla shows acute meningitis with edema.

The bulk of the experimental study of epilepsy has been on the cortex. Is this logical? Generalized convulsions take place in decorticated animals. When we consider the relative insensitivity of the cortical brain substance proper and the high degree of sensitivity of the medulla oblongata to the slightest touch as well as the location of the numerous nerve elements in the medulla, which play an active part in the convulsion, one begins to doubt the cortex theory.

3. Experimental Work in an Attempt to Study the Medulla Theory: Many of the symptoms of the convulsion may be traced anatomically to the medulla. Is it possible that suddenly produced intracranial pressure, of vascular origin, forces the medulla oblongata down into the foramen magnum and thus causes the pressure stimulus producing the convulsion? To study this question laminectomies were done directly below the foramen magnum reflecting the meninges and convulsing the animals (cats) by use of camphor monobromate. Procaine was used as a local anesthetic. If the cerebrospinal fluid was liberated it required 3 to 4 times the average dose of drug to convulse the animal; but the animal could be convulsed. This showed that the convulsion was not due to cerebrospinal fluid pressure alone, as the laminectomy allowed free drainage. This would suggest that the brain expansion, during the convulsion, is caused by dilation of the capillary bed of the brain. To summarize the study of observing the medulla oblongata in a convulsion, it was found that in a severe convulsion the medulla appears to expand and is forced caudalward and upward into the operative field, apparently being constricted by the foramen magnum.

One working with the medulla oblongata will very quickly become aware of its extreme sensitivity. Sudden deaths are frequent. The slight pressure used in inserting a small curved ligature carrier between the medulla and membranes (arachnoid and dura) results in generalized convulsive tremors. The tremors stop almost instantly when the stimulus is removed. Slight pressure on the superior surface of the medulla forcing it gently against the anterior rim of the foramen magnum results in respiratory arrest. Remove this stimulus and the respirations quickly return to normal. Moderate increase of this pressure produces cardiac arrest. If this pressure is maintained the action continues and results in death in a few minutes. These simple facts concerning the respiratory and cardiac con-

trol centers of the medulla oblongata have long been known to physiologists but have never been correlated with the convulsion.

When an animal is given a large dose of the convulsant, death takes place in the form of status epilepticus. The death is apparently a respiratory death, the heart beating fairly regularly for 3 or 4 minutes after the last respiration, only increasing in rate during the last minute or so. In anaphylaxis in guinea pigs the death is of the same type; respiratory failure (spastic paralysis of the respiratory muscles) follows the sharp brief convulsive movements, the heart beating for 3 or 4 minutes after the last respiration. Are we dealing with a medullary death in anaphylactic shock?

Immediately after the convulsion, auscultation of the heart often fails to detect the heart beat. As the respirations begin, the heart sounds return. To verify this observation fluoroscopy was done and the cat's heart and diaphragm observed during the convulsion. During the acme of the convulsion the heart came to a complete stop, apparently in tetanic spasm. This lasted from 6 to 10 seconds or more and roughly paralleled the period of respiratory arrest. The diaphragm and heart both appeared to be in tonic contraction. Both diaphragm and heart, after this brief cessation of movement, began to function again practically at the same time. Stimulation of the vagi produces cardiac arrest. Again our attention is drawn anatomically to the cardio-inhibitor center in the medulla.

Summary: Experimental and clinical studies suggest that the convulsion is a physiological phenomenon, the result of suddenly produced intracranial pressure or volume change, vascular in character, which forces the sensitive medulla oblongata down into the constricting foramen magnum, resulting in stimulation by pressure of the nervous tissues at this site, producing the generalized major convulsion, a purposeful reaction of the organism to relieve damaging pressure on the brain. The convulsion might be considered the converse of syncope and like this phenomenon has many causes but only one mechanism.

Herbert H. Herskovitz read a paper on "Sedation of the Nervous Patient."

Dr. Herskovitz said in part: "This paper deals with the more useful drugs with which to quiet and calm nervous patients. In administering sedatives one must keep in mind the wide variety of individual reactions and tolerance as to both the type of drug and the dose. It is extremely important that no one sedative be continued over a long period because a tolerance is soon established and sedation lost. No single sedative should be taken for a period longer than 3 or 4 weeks, and a wise plan is to alternate weekly. A patient receiving any sedative, no matter how light, should be closely observed at frequent enough intervals to obviate the appearance of toxic symptoms. There is no drug light enough in its action or wide enough in its margin of safety to permit long continued, undirected usage.

"The time of administration is important and should be regulated in accordance with the rapidity of action of the drug used; early evening, before retiring, or after retiring. Many patients cannot fall asleep immediately and because of this become highly excited, thus preventing a sedative from acting properly. Others fall asleep immediately but awaken after a few hours and then remain fitful the balance of the night; here a longer acting drug should be used. When patients complain of feeling "dopey" it is usually because a drug acting longer than necessary, or one in which

effectiveness has been delayed, is used, and it is wise to change medication or reduce the dose.

"Sedatives are quicker acting and better tolerated if taken on an empty stomach and with a glass of tepid water or milk. As most drugs of this type have a tendency to constipate, the intestinal tract must be kept clear at all times.

Extract sumbul is an efficient nerve tonic best used in the vague unrest following illnesses, in the light hyperthyroid case, and, in general, if one wishes to "take the edge off" nervousness. The average dose is 2 grains 3 or 4 times a day and there is a wide margin of safety. It is best in combination with ferric sulphate, asafetida, and arsenic, as pill sumbul compound.

Paraldehyde is a safe and effective sedative. It has a very disagreeable taste and odor and is prone to upset the stomach. Of particular value as an adjunct in the treatment of acute alcoholism and its after-nervousness. The average dose is 1 or 2 drams repeated within 3 hours.

Chlorotone: Is a valuable nervous sedative. There is a wide margin of safety, it does not depress the heart or respiration, unless given in excessive quantities, and does not irritate the stomach; is efficient in doses of from 5 to 10 grains every 4 or 5 hours.

The bromide salts are used more than any other sedative in both general practice and mental institutions, and justly deserve their popularity because they are efficient, relatively inexpensive, toxic symptoms are readily overcome, and "hangovers" are rare. With usual doses, the sleep produced more closely resembles normal sleep than that caused by stronger sedatives. By varying the dose and by combining with other drugs, the bromides can be made to produce any degree of sedation from slight dulling of the intellectual powers to deep narcosis.

Sodium bromide is far less apt to disorder the stomach, and is not so depressing as the bromide of potassium, and is most efficacious. As to dosage, divided doses of 45 to 90 grains a day usually allay nervousness; 30 to 40 grains at night is the most efficient dose for insomnia. Alcoholism, morphinism, migraine, hysteria, and spasmodic conditions may require heavier doses but it is well to try lower ones first. In combination the bromides are valuable adjuncts; sodium bromide grains 30 and phenobarbital grains $1\frac{1}{2}$ to 3; sodium bromide grains 30 and chloral hydrate grains 10, neither to be repeated before 4 hours; aspirin grains 10, sodium bicarbonate grains 20, and sodium bromide grains 30, if neuralgic pain is present.

After bromide has been used for some time acne may appear, the breath becomes fetid, patient is dull and expressionless. Symptoms of further toxicity are ataxia, loss of taste, diminution of hearing, low intellectual faculties and moroseness; while rarely and only after extremely heavy doses long continued, hallucinations, homicidal tendencies, and cachexia appear. The treatment is withdrawal. Acne may be prevented by advising the patient to take a quarter teaspoonful of salt in a little water, night and morning, keeping the intestinal tract clear, and washing with warm water and castile soap. Some prevent acne by administering Fowler's solution.

Chloral Hydrate: Is little used because of its high degree of toxicity and uncertain dosage. It should never be prescribed in conditions in which there is renal, cardiac, or gastric involvement. A divided dose of 30 grains a day will rarely cause untoward symptoms in a healthy adult, and as it is a pure sedative, it

can be used to great advantage, particularly in combination with the bromides for stubborn cases of insomnia.

Barbiturates can be divided into 2 groups, the shorter acting of which sodium amytal, pentobarbital, sodium allonal, nembutal, oral sodium, are examples; and the longer acting groups represented mainly by barbital, phenobarbital, dial, and neonal. Though in general their action is quite similar, they differ in effectiveness, rate of elimination, and, to some extent, degree of toxicity. They can be used to advantage if the physician always bears in mind the various dangers which may be encountered and the fact that they influence almost every system of the body which may lead to permanent impairment of function of the various organs. Insomnia, fear, depression, nervous excitement, convulsive attacks, and marked restlessness are favorably influenced by their judicious use. They are valuable sedatives but their action is stronger than the remedies already discussed and should not be used unless the patient is quite nervous or the others have failed.

The dosage of the various barbiturates cannot be definitely standardized. A good rule is to start with the dosage recommended by the manufacturer and then vary to obtain the desired effect. Average dosage used at the Wernersville State Hospital is: Phenobarbital, grains $1\frac{1}{2}$ to 3; Barbital, grains 10 to 15; sodium amytal, grains 3 to 6 (6 to 9 per rectum); nembutal, grains $1\frac{1}{2}$ to 3; and dial, grains $\frac{1}{3}$ to 1.

As the long continued use of these drugs produce mental changes, it is extremely important a history of previous sedation (either prescribed or self-administered) be secured because, instead of sedatives, immediate stimulation may be needed.

Rules of caution may be observed with advantage. As obese and debilitated patients tolerate barbiturate poorly, smaller doses may be employed. Patients with arteriosclerosis, hypertension, or myocardial disease or those with an extremely low blood pressure may react poorly to the shorter acting drugs because of the marked effect on the blood pressure. In patients with respiratory obstruction or pulmonary congestion, these drugs should be avoided because of the depressive effect on the respiratory center as well as the tendency to cause pulmonary congestion. Many barbiturates have a cumulative effect.

Opium: In cases of extreme excitement, marked shock, excruciating pain, delirium tremens or its verge, if a patient has been without proper sleep for days, morphine should be used to produce immediate rest. Slower acting or lighter acting drugs are not feasible here and addiction will never occur from indications such as these. Hypodermic doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain are not excessive for the average adult.

Robert Phifer read a paper on "The Early Symptoms of Psychosis." Dr. Phifer said in part: One must study abnormal behavior to know what is wrong with an individual.

A slight deviation may mean the starting point of a neurosis or psychosis.

The family history obtained from relatives and friends is of great importance. Bizarre acts and defects of judgment are noted by them. A history often is of no importance because of the reluctance of relatives to tell all they know, or, because they do not interpret early changes correctly. The physician's only recourse then is to note the patient's actions and listen to what he has to say.

One who develops dementia precox usually has had a secluded and sheltered existence. As a child pre-

ferred to be alone; did not have the gang spirit. May have gotten along well in school, but did not take any interest in athletics or sports. Always has been regarded unsociable. Cannot make new friends or even hold old ones. Places a barrier around himself. Ultimately such a one will feel that persons are looking at him, watching him, pointing at him, or trying to influence him. Believes that these persons are trying to hurt him, poison his food, or murder him. May grow silly, and talk and laugh to himself, or may betray mannerisms and assume fixed attitudes, or go into a stupor. As time goes on all these symptoms progress. The intelligence may be preserved for a long time but usually deterioration sets in.

The history of a maniac depressive psychosis usually shows alternating moods of depression and elation with remissions a fairly constant feature. During the depression, wants to commit suicide; during the maniac stage he is exalted, happy, elated, in love with the world and life, although he may go to the extreme and become violent and overactive. He never knows when to stop; he is like a clock that never runs down. He may plunge into wild schemes and ruinous plans during this exalted mood.

The parietic history presents a person as either depressed, exalted, or euphoric, depending on his previous personality. He suffers from memory defects, and defects of judgment; he is fatigued easily, his personality changes, and he has vague symptoms. When one finds pupillary changes, especially the Argyll Robertson pupil, tremor of the lips, tongue, and fingers, changes in the reflexes, impairment of speech, plus positive laboratory findings, the diagnosis is conclusive.

Alcoholic hallucinosis develops in one who has been a habitual drinker. It is characterized by hearing voices calling the subject reviling names or accusing him of malicious acts. Visual hallucinations are rare.

The subject of cerebral arteriosclerosis complains of headaches, alterations of memory, irritability, depression, and emotional changes. Physically one may find hypertension, kidney damage, enlargement of the heart, and sclerosis of the retinal arteries and other vessels. A progression of the disease occurs with development of paralysis, gross character, and personality changes.

PEARL E. HACKMAN, *Reporter*.

CHESTER

June 19, 1934

The meeting was held at the Chester County Hospital, President Davis in the chair. Luncheon was served. Thomas C. Stellwagen, professor of genito-urinary surgery at Jefferson Medical College, talked on "Conservative Surgery of the Kidney." He said in part: He had tried all methods at Jefferson, in which about 40 kidneys are removed each year, and he had adopted the following procedure as the most practical. The incision is made a finger's breadth above the crest of the ilium, so as to allow a good shelf for repair. If in doubt as to the size of the kidney, begin the operation by first removing the twelfth rib. Do not use catgut in kidney surgery, as it is a very frequent cause of hemorrhage. A rubber tube was shown which he uses extensively for the control of hemorrhage. This rubber tourniquet is passed around the kidney pedicle. In pyelitis, he said that defective filling or emptying of the kidney is the greatest etiologic factor. Some cases of pyelitis are definitely improved by minute doses of neosarsphenamine. Cancer is by all means the most common tumor of the kidney, and hypernephroma, con-

trary to popular belief, is relatively rare. Cancer of the kidney should be treated early, and deep roentgen-ray therapy has an important place in the protection of these cases against recurrence. Deep roentgen-ray therapy should be given to cases of cancer of the bladder, even though the prognosis is always extremely grave. Cod liver oil may be of some help in the prevention of kidney stones, and the widespread consumption of tomato juice and grape fruit juice with oxalate formation has been an important factor in increasing the number of these cases.

The Executive Committee reported it had approved the recommendation of the Economics Committee that Chester County join with Philadelphia County in an endeavor to have the State Economics Committee made a separate committee apart from the Public Relations Committee. At the suggestion of the Economics Committee, it was also decided to cooperate further with the Philadelphia County Society in the matter of the revision of the By-laws of the State Society; this matter will come before the House of Delegates at the October Convention. A letter from Harold A. Miller was read, announcing that \$7 a case and \$100 a month will be established as a maximum allowance for a physician in the care of patients on Emergency Relief. William T. Sharpless discussed the matter of a County Health Physician; as there is now more likelihood of receiving financial aid from the County Commissioners, it is time to seek such funds. Howard B. Davis reported that rapid progress is being made in the fall campaign for the reduction of appendicitis mortality as well as maternity morbidity and mortality. Physicians of the county will be called upon to make addresses on this subject during October and November, 1934, in 17 localities throughout the country. It was decided that each school district in the county should have a school nurse in order that the health of the children be safeguarded. John A. Farrell was elected delegate to the State Convention with Joseph Scattergood, Jr., and I. P. P. Hollingsworth as alternates. It was announced by Oscar J. Klevan that a testimonial dinner to those doctors who have been in practice 50 years or more will be held on the evening of July 17, in conjunction with the regular monthly meeting of the society. This dinner will be at the Downingtown Women's Club.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DELAWARE (EASTERN BRANCH)

June 26, 1934

The meeting was held at Oakmont, Myer Solis-Cohen, Philadelphia, spoke on the "Duties and Privileges of a Doctor in Court." A digest of his talk follows.

In referring to a recent decision of a Delaware County judge, the police authorities were an exception to the rule that a physician cannot examine a person without his consent. They have the right to have a physician examine a drunken man who has been arrested. This is necessary to ascertain whether an arrested driver or an unconscious man is drunk.

Subpoenas must be obeyed, if the laws concerning them are complied with, even if the summons is for expert testimony.

The usual witness fee is the only compensation to which a physician, even as expert, is legally entitled.

If called as an ordinary witness, the physician may testify only as to facts, and may give his opinion based on facts presented at the trial, but he cannot judge the truth of those facts, which is a matter for

the jury. Unless properly compensated, however, the expert need not study the case, examine the patient, or listen to the evidence.

A physician should keep accurate records, especially in accident cases. He may bring these original records to court for the purpose of refreshing his memory.

The medical witness should listen carefully to each question and clearly understand it before answering. He may ask to have the question repeated or explained. If it contains 2 separate questions he may so state and answer each separately. If it assumes something to be true that is not true, the witness may point this out. He may ask the court for a reasonable time to consider and answer each question before another is propounded. If he does not feel certain of the answer to any question he may so state. He should answer the questions directly, simply, accurately, deliberately, carefully, and coherently, volunteering nothing beyond what is required to present the facts or opinions clearly. If asked to answer "yes" or "no" he should do so, unless such answers would be misleading or give only a part of the truth. In the latter instance the physician may explain this fact to the court and request the privilege of qualifying his answer. He has the right to testify according to the dictates of his conscience in harmony with his oath and need not hesitate to inform the court he cannot answer as directed and abide by his oath. Should the court direct him to answer despite his objection, he need not answer; nor need he fear being fined for contempt of court, as he would be asked to commit perjury, which would tend to incriminate him, and a witness cannot be compelled to give testimony of any nature that tends to incriminate him.

Books cannot be offered in evidence, nor can a witness be asked questions from a medical book unless he has previously stated that his opinion is based in part on knowledge obtained from it or has acknowledged its writer as an authority. The speaker gave many reasons why it was inadvisable to make such admissions, and advised verifying the quotation and ascertaining the date of publication before expressing an opinion as to a supposed statement from a book.

The disrepute into which medical testimony has fallen was ascribed not so much to the fact that experts are often incompetent, inaccurate, overzealous, and occasionally dishonest, but chiefly to the progressive state of medicine and the contestant controversy that attends this progress, with its consequent differences of opinions among competent and truthful physicians, to the inability of many of the latter to state technical facts in simple language, and especially to the mistake made by one who should be an impartial witness and teacher in allowing himself to become an adviser, partisan, and advocate.

The medical witness should be interested only in the scientific aspects of the case and not in its outcome. The medical adviser and advocate has a legitimate function in court but only at the side of counsel and not on the witness stand.

In discussion George Cross, of Chester, enlarged on the points brought out by Dr. Solis-Cohen. He stated that he thought it would be better if the court would appoint a disinterested medical authority to pass on medical testimony; there are many arguments against this but it would be the best solution to the matter. John J. Sweeney referred to discourteous treatment shown him by a judge of the Delaware County Courts, and who stamped him as a medical racketeer. The tirade by the judge was uncalled for and unjust in every way. W. Benson Harer was opposed to answer-

ing yes or no to questions; at times justice is handicapped by such answers and he cited a case to support the claim. J. Evans Scheele asked for the proper procedure in cases of criminal abortion, as Delaware County has had 4 such cases during the past month.

In closing, Dr. Solis-Cohen reviewed the discussion and stated that in the case of Dr. Harer he would have enlarged on the answers only on cross-examination. As to Schleele's question, cases known to be criminal should be reported to the district attorney's office. This will give the law an opportunity to investigate and also protect the doctor.

Buffet luncheon was served.

AUGUSTUS H. CLAGETT, *Reporter.*

FAYETTE

May 3, 1934

The meeting was held in the Medical Hall of the Uniontown Hospital, L. Dale Johnson presiding.

George J. Wright, Pittsburgh, discussed "The Problems of Acute Head Injuries." Concussion, contusions, lacerations, hemorrhage, and edema were considered as pathologic processes resulting from head trauma. Dr. Wright said in part:

There is no adequate definition of concussion as it follows all head injuries. In severe contusions of the head, always look for lesions of meningeal vessels, sinuses, and veins. The symptoms usually depend upon the location and size of the hematoma. The general condition of the patient is most important. This is shown in evaluating the degree of consciousness, the pulse, the blood pressure, the temperature, the respirations, and the vasomotor disturbances. Death is usually not due to local lesions but to the effect of the injury on the vital center. If the vital centers are impaired the general condition of the patient changes correspondingly. It is a good rule in any case to treat the shock first. Always watch for slow-forming edema of the brain, with the patient slowly getting worse. Neurologic data are of secondary importance but certain signs are significant. Marked dilatation of the pupil on one side is a localizing sign, especially if associated with symptoms of compression, as slow pulse and slow respirations. Palsies of the cranial nerve are not so important in estimating the proper treatment and the prognosis. The same is true for convulsions or any irritations of the motor cortex. The treatment should consist of: Accurately estimating the general status of the patient; estimating the possibility of single, multiple, or diffuse lesions; determining whether the symptoms are immediate or delayed and if the lesions are decreasing or increasing the symptoms; deciding whether the lesions are due to paralysis or to irritation; deciding if a localized lesion is present that may necessitate surgery. It is usually better to be in no hurry. Some cases show an aseptic meningitis produced by irritation of the blood on the brain covering. These occur early. Infectious meningitis occurs late; do not be in a hurry about evaluating the significance of palsies, concussion, or neurologic signs.

The postconcussion syndrome consists of headache, lack of concentration, disturbance of gait, coordination, character. It is difficult to prevent and treat. Many late hematomas develop after seemingly trivial injuries. The problem of head injuries is chiefly that of actual brain injuries. Focal symptoms are often misleading and frequently transitory. Do not be afraid to do nothing.

Samuel S. Allen, Pittsburgh, discussed "The Treatment of Head Injuries." He said in part:

Treatment is usually symptomatic. Shock responds best to heat and caffeine. After an injury, increased pressure develops with the brain expanding at the expense of the venous system, encroaching upon the central nervous system and upon the arterial system until the systolic blood pressure in severe cases will not maintain circulation. This results in death. Fifty per cent glucose solution intravenously is somewhat better as a brain dehydrator with a more prolonged effect than hypertonic solutions. Cerebrospinal drainage may aid. If it is bloody, it should be repeated with little fear. It is also an important diagnostic point. Bloody cerebrospinal fluid impairs the absorption of that fluid. Subtemporal decompressions at the present time are seldom necessary. Débridements are essential in severe cases with suction applied over the brain substance. The ear should never be syringed in basal fractures but should be cleansed mechanically. Elevating the head 45 degrees aids the cerebrospinal drainage. Complications consist usually of hematoma, meningitis, brain abscess, postconcussion syndrome, and posttraumatic encephalitis. The patient should be in bed for 3 or 4 weeks after symptoms all subside. This lessens the danger of hematoma and posttraumatic headaches. Operations are rarely indicated in brain lesions unless they are localized. The most common cause of surgery in head injuries is hemorrhage from the middle meningeal artery.

In discussion, Robert H. Jeffrey stressed the value of the neurologist to the surgeon. Occasionally trauma cases terminate in mental hospitals. He reported a case of aseptic meningitis and one of ruptured meningeal artery. Dr. Wright, in concurring stated that if the face is first paralyzed at the time of injury, prognosis is poorer than if the paralysis subsequently develops, when it is usually caused by edema. Do not be disturbed by long states of unconsciousness.

RALPH LIONEL COX, *Reporter*.

HUNTINGDON

April 17, 1934

A public meeting on mental hygiene was held at the Huntingdon Community Home at 7:30 p. m. with John M. Keichline in the chair. George A. Parker presented the psychiatric aspect, and Arthur Phillips, Ph.D., psychologist at the Pennsylvania Industrial School, spoke on child behaviorism, and problems in training the child mind. The audience asked many questions of Dr. Phillips which led to a worth-while open discussion.

June 14

This meeting was held at the J. C. Blair Memorial Hospital, Huntingdon, in the afternoon, Vice President Walter Orthner in the chair. William A. Doebele, director of the Tuberculosis Clinic, spoke on "Relation of Syphilis to Tuberculosis." In both diseases the skin manifestations and characteristics are similar. Theoretically it should be easy to diagnose the particular infection but in actual practice it is difficult to do so. In pulmonary syphilis there are no characteristic symptoms, and it may simulate other lung infections as tuberculosis. The loss of weight, fatigue, cough, and even bloody sputum are found in syphilitic infections. Roentgenograms of the chest rarely distinguish the condition. Patients with hereditary syphilis are more prone to lung tuberculosis, one series showing 24 per cent of tuberculous patients having had hereditary syphilis,

as contrasted with 14 per cent who were not syphilitic. Partial positive Wassermann reactions may be obtained in tuberculosis, therefore this reaction is not a criterion. Neosalvarsan will help the tuberculous especially in the skin type, and thus it cannot be relied upon as a therapeutic test. Mercury is far more valuable in the diagnosis. An actively sick tuberculous patient with syphilis should not have antisyphilitic treatment. Old tuberculous cases with active syphilis should have a thorough antisyphilitic course of arsenicals in small doses.

F. R. Hutchison presented an early case of intestinal obstruction. A male, aged 59, complained of pain in the right lower quadrant at 3 a. m., with vomiting at intervals for the next 7 hours. When seen then the face was flushed, but no signs or symptoms except in abdomen. The right lower quadrant was moderately tender on deep pressure. No rigidity. Three hours later the temperature was 99° F., pulse 66. Blood count: 9000 white blood cells with 87 per cent polymorphonuclears. Urine negative. No genito-urinary symptoms. Some years ago the patient had a similar attack; at times after an auto ride he would have pains but no vomiting. At operation the cecum and ascending colon were found to be contracted. There was an angulation of the ileum from a mesenteric band. Four inches of the terminal ileum were adherent to the lateral parietal peritoneum, causing a twist of the ileum with obstruction. Postoperatively there was no vomiting, and the recovery uneventful.

July 12, 1934

The meeting was held in the afternoon at the J. C. Blair Memorial Hospital, Huntingdon, Wm. T. Hunt presiding. Four of the 26 members attended the A. M. A. convention. Howard C. Frontz was a delegate, and gave a report on the transactions of the House of Delegates; G. A. Parker reported the Section on Medicine; J. M. Keichline reported on the radiological features presented at Cleveland; Wm. T. Hunt gave a synopsis of the transactions of the Section on Eye, Ear, Nose and Throat Diseases.

The society has lost one of its oldest members in the death of Frank L. Schum, Huntingdon.

WALTER ORTHNER, *Reporter*.

LEHIGH

June 11, 1934

The meeting was held at the Hotel Traylor, Allentown; Frank S. Boyer presided. Barton Cooke Hirst, emeritus professor of obstetrics, University of Pennsylvania, spoke on "The Improvement in Narcosis in Labor and for Operations"; and, the "Advancements of the Last Fifty Years of Greatest Use to the Modern Clinician." Dr. Hirst said in part:

In the course of one generation the satisfactory abolition of the pains of labor has been accomplished. Chloroform and ether at the conclusion of labor were used since the middle of the 19th century and an occasional dose of morphia was employed but the hours of parturition remained a prolonged agony till 1903, when the first attempt at prolonged medical narcosis was published in Vienna and was quickly tried throughout the civilized world, but the excessive doses of morphia resulted in too many fetal deaths and too many cases of postpartum hemorrhage. Then came the so-called twilight sleep, one-quarter medicinal and three-quarters suggestion, Gwathmey's method and many others, until the publication of the trial of 8 different

plans in the Boston Lying-In Hospital really seems to have settled the matter for the present. Dr. Hirst had a personal experience in all these plans but none has given him the great satisfaction of that found best in Boston, nembutal, scopolamine and in less than a fifth of the cases rectal ether if necessitated by extreme restlessness.

Equally humane has been the narcosis preceding operations. The plan recommended by Edward Beach, the anesthetist in the Graduate Hospital, Philadelphia, luminal, scopolamine and morphine, is working well. The patient goes to the operating room sound asleep and awakens hours afterward, often unaware that the operation is over.

It is an interesting question to ask one's self after 50 years of practice what among the innumerable advances in medicine and surgery are most helpful at present in contrast with the past. To one who saw the first introduction of Listerism, with all its faults, in the University Hospital, Philadelphia, and saw the first trained nurse in uniform enter that institution, asepsis and trained nursing must stand first. Improvement in surgical technic stands next. When one remembers fixing the stump of a hysterectomy by a couple of skewers above the abdominal wall until it sloughed off, as done by all his contemporaries and himself for some years, and recollects the late Professor Goodell's public statement which Dr. Hirst heard, that he had never seen a pus tube, one can realize what has been accomplished since that day.

Though omitting a tiresome recapitulation of the coöperation required today in a great hospital by all the services, it was interesting to think what collaboration was of the most importance to Dr. Hirst in his daily work. In his opinion appeals are more often made to the roentgenologic and radium department than any other. What with roentgen-ray diagnosis in both branches, gynecology and obstetrics, radium in fibroids and cancer, these 2 services are in constant consultation and coöperation. Another most essential collaboration is in the standardization of diabetics by the diabetic clinic before operation. What was foremost in his mind was to point out that greater changes have occurred in medical science in the last 50 years than in the whole preceding ages of medicine; that an individual in active practice all this time had an enviable opportunity to witness such prodigious achievements and finally to congratulate the younger members present on their command of so many aids to success in practice sadly lacking to their elders when they began.

LUZERNE

June 6, 1934

Edward Bixby presided. Dr. Stegura, Nanticoke; Dr. Thomas Murphy, Duryea; and, Dr. Perkusky, Freeland, were elected members.

Edmund B. Piper, Philadelphia, professor of obstetrics, University of Pennsylvania School of Medicine, gave a talk on "The Trend of Teaching." At their school a course of 6 lectures is given in obstetrics to the students in the second year. In the third year, a course of lectures is given twice a week. In the fourth year, there are 3 semesters.

The trend of teaching in this country is getting dangerous. There is too much tendency to encourage research among the undergraduates. It is impossible to get a practical paper in specialistic journals. At a recent meeting in White Sulphur Springs one speaker said of an editor, that the way he selected his papers

was to read them all, and publish those he could not understand.

Version is a selective thing for a man that is suited for it. Dr. Piper is a protagonist of Potter's way of doing a version under his indications for it. The first time Dr. Piper tried the Potter technic after visiting the Potter Clinic, he thought it was impossible to get both feet; but has found out it is not impossible.

There are 3 classes of complications of late pregnancy: Those that are not due to the pregnancy; those that are due to the pregnancy; and the toxemias. Among the first are tuberculosis, cardiac disease, appendicitis, and possibly pernicious anemia. This year they have made a change in the teaching and use the nomenclature of the medical department; *i.e.*, that it is a pregnancy complicating tuberculosis and heart disease, not the reverse.

Of the second, the commonest of the diseases of pregnancy itself, is pycilitis. Today there is more pycilitis than before, because it is being recognized. Hysteria and mental conditions are the second classification. Puerperal mania does not occur unless the woman has an underlying predisposition.

As to the toxemias of pregnancy, the work of the medical man and biochemist in these conditions is an extremely brilliant piece of work. At the University of Pennsylvania the medical consultants are divided into their various sections and are called according to their classification. Eclampsia is almost a rarity at the University Hospital. The treatment is divided into eliminative, sedative, operative and specific; all have had their vogue. Eclampsia presupposes convulsions. At the University there is no set rule for treating eclampsia. All get elimination; sedation; the selected cases are operated upon; and where specific treatment is indicated, it is used.

MARJORIE E. REED, *Reporter.*

(Dr. Piper's reference to the difficulty experienced in having an article accepted for publication in a specialistic journal is very easily explained. First to be mentioned is the main reason, that a journal must show a profit to the enterprise publishing the same, hence a strict censorship as to number and quality of articles accepted. The overwhelming demand for journal space; contributions from medical schools, hospital personnel, the unattached, *etc.*, *etc.*, produce an overwhelming amount of literature annually seeking publication. The report of the last fiscal year of the A. M. A. shows that the publication of their special journals exceed the income by approximately \$10,000, and the loss incurred in the publication of *Hygieia*, amounted to \$30,000; which deficits are the lowest for several years.

How long would an independent journal continue under such circumstances?—EDITOR.)

MONTOUR

June 22, 1934

The meeting was held at the Geisinger Hospital at 8:30 p. m.

Henry F. Hunt presented the report of the Emergency Medical Relief Committee; Charles L. Johnston was elected delegate to the State Society and Henry F. Hunt and Russell Thomas, alternates; Horace V. Pike was elected district censor.

A paper was read by Charles L. Johnston on "Diagnostic Problems in General Practice." He outlined the function of a general practitioner, stating that 85 per cent of the patients whom he sees present no great diag-

nostic problems, but the other 15 per cent tax his acumen. To illustrate some of the difficult diagnostic problems that the general practitioner meets, he gave the histories of 2 patients with coronary thrombosis, a case of duodenal ulcer and secondary anemia, a patient with aortic stenosis and gastric hemorrhage, and a case of carcinoma of the tail of the pancreas.

HENRY F. HUNT, *Reporter*.

WARREN

July 16, 1934

The meeting was in the nature of "a get acquainted social." The Woman's Auxiliary arranged a picnic dinner at the Outing Club at which 43 were in attendance.

A plea for greater interest in the auxiliary was made. William M. Robertson who has been bedridden for many months was able to be present and afforded the members much pleasure by his pertinent remarks, comparing the practice of former years with the present. A fraternal spirit is fostered by meetings of this sort and the members of the auxiliary are doing a good work in establishing good will among the doctors' wives which in turn will create better fellowship among the doctors themselves.

MICHAEL V. BALL, *Reporter*.

MEETING OF THE SEVENTH COUNCILOR DISTRICT

The Seventh Councilor District meeting of The Medical Society of the State of Pennsylvania was held at the Williamsport Country Club, Williamsport, July 11, 1934. Dinner was served at 12:15 p.m. to 90 members and guests; 20 physicians who were unable to come to the dinner, attended the meeting which began at 2:15 p.m.

David W. Thomas, Lock Haven, trustee and councilor, presided. The following district censors submitted reports: Saylor J. McGhee, of Lock Haven, for Clinton County; John C. McAllister, of Ridgway, for Elk County; Wesley F. Kunkle, of Williamsport, for Lycoming County. Elwin H. Ashcraft, censor of Potter County, and John H. Doane, censor of Tioga County, were unable to be present, though both counties were well represented. The following visiting trustees and councilors were presented: George C. Yeager, Philadelphia; E. Roger Samuel, Mt. Carmel; Clarence R. Phillips, Harrisburg, and Augustus S. Kech, Altoona. President Donald Guthrie of the State Society was unable to attend the meeting. President-elect Moses Behrend, Philadelphia, of the State Society, read a paper on "Workmen's Compensation," and outlined what will be expected of each physician in the State during the coming year in regard to changes which will probably be brought about in the Compensation Laws. Secretary Walter F. Donaldson, of the State Society, Pittsburgh, discussed a number of State Medical Society affairs and advised that even throughout this great depression, the State Society membership is more than it was the preceding 2 years.

Emil Novak, associate professor of gynecology, Johns Hopkins University Medical School, Baltimore, Md., discussed some of the "Functional Gynecologic Problems." Harvey F. Smith, of Harrisburg, read a paper on "Appendicitis," laying great stress on the diagnosis, especially in children. Harold A. Miller, Harrisburg, director, State Emergency Medical Relief, outlined rules

and regulations of Emergency Relief and explained what they hope to do in regard to the Work's Division during the next year. George L. Lavery, Harrisburg, chairman, State Emergency Medical Relief Committee, discussed in detail the many problems confronting the Emergency Relief in regard to the bills rendered by the physicians throughout the State.

REGIONAL CANCER MEETING FOR CENTRAL PENNSYLVANIA

The meeting was held at Jaffa Mosque, Altoona, June 28, 1934, William H. Howell, M.D., Altoona, general chairman.

The morning meeting was called to order by the general chairman, William H. Howell. An address of welcome was made by George E. Alleman, president of the Blair County Medical Society.

It was announced that Jonathan M. Wainwright, of Scranton, chairman, State Society Commission on Cancer, would be unable to attend the meeting as recently he had been operated upon in New York City for carcinoma. A message of condolence was sent to Dr. Wainwright.

Samuel J. Waterworth, of Clearfield, made a plea for education in the subject of cancer, that the object of the meeting was to get to the public the knowledge that cancer is preventable, and in many cases, curable. The medical profession should be awakened and stimulated to the importance of this problem.

Joseph A. Hepp, Pittsburgh, presented a paper on "The Pregnancy Test for Cancer," presenting the clinical records of 3 cases. The paper was predicated on the research by Aschheim, Zondek, Heidrich, Fels, and others. According to these investigations the presence of the sex hormone of the anterior hypophysis in the urine is to a certain extent diagnostic of pregnancy or of certain neoplasms of the sexual organ in either male or female.

Dr. Hepp summarized as follows:

The presence of large amounts of anterior pituitary lobe hormone in urine is not necessarily a sign of the presence of a fetus. There seems to be some relationship between pregnancy and the anterior lobe of the pituitary, and certain tumors. It is known that pregnancy accelerates the growth of some tumors; on the other hand, certain hormonal analogies have been shown between pregnancy and the cancerous state. The presence of a positive pregnancy test in normal pregnancy, hydatid mole, and chorionepithelioma is interesting if one considers that in all 3 conditions, there are different phases of the same cells, *i. e.*, syncytium and Langan's cells. It is thought these cells exert their influence on the anterior lobe of the pituitary. For the explanation of a positive reaction in teratoma or embryoma, the analogy is somewhat similar to that offered in pregnancy where it is thought that the growing fetus stimulates the hypophysis. It would certainly seem logical to suppose that the germinal layers in teratoma or embryoma also stimulate the hypophysis to throw out prolactin A and prolactin B which form the basis for the positive pregnancy reaction.

The observation that tumors of the female genitalia and less frequently tumors in the male are accompanied by excretion of prolactin, from the pituitary, and that this is demonstrable in the urine is important.

There are increasing numbers of case reports appearing in the literature in which hormonal studies offer a biologic tissue diagnosis. This is a new method of approach to the study of certain tumors.

Albert J. Bruecken, Pittsburgh, presented an illustrated paper on "Indications for Biopsy." Dr. Bruecken stated that: Any lump or lesion should have a biopsy; there are few contraindications in good hands; biopsy is often a major surgical procedure; a biopsy should be a complete surgical excision; a simple biopsy is a punch bite of tissue; biopsy technic may be—lateral or direct approach—or aspiration; cysts of the breast may sometimes be diagnosed by aspiration; aspiration is useful in diagnosis of cancer of the lung; biopsy is full of risks; and, delays are dangerous.

Eugene Whitmore, Washington, D. C., gave an illustrated talk on "Abnormal Involution of the Breast." His conclusions were: Tumors of the breast may occur as the result of long continued local irritation; as a malformation; or as a result of abnormal hormone production. In women from age 25 to 40 these changes are found in 25 per cent of cases. Not all breast tumors are cancer, many are, all are important.

Maxwell L. Lick, Erie, presented the subject of "Teratoma Testis." The salient points were: Malignant tumors of the testis are rare, 1 to 2000 in the Mayo admissions. In frequency, the right side predominates. These tumors occur at the age of greatest sex activity.

Classification: Seminoma and teratoma. These tumors are very malignant, grow fast, and are prone to metastasis to the retroperitoneal lymph nodes. Prognosis: According to Hugh Young the average life after diagnosis is 2 years, 11 months.

Treatment: Orchidectomy; removal of retroperitoneal lymph nodes; Coley's fluid; and roentgen ray.

Joseph Hepp read an illustrated paper by Bender Z. Cashman, of Pittsburgh, on "Cauterization of the Cervix." The paper stressed the following points: Chronic irritation of the cervix uteri is a direct predisposing cause of cancer; cancer of the cervix is a disease of married women. (This statement should not mislead the reader, as cases have been reported in the virgin, hymen intact.—EDITOR.) There are no premonitory symptoms and few are diagnosed early. Early diagnosis is made only by physical examination.

The following points in technic were emphasized: The cauterization should be thorough; if necessary, radial incisions should be made in the cervix to expose all cysts; measures should be taken to avoid post-operative stenosis of the cervix when cauterization is done.

Thomas G. Simonton, Pittsburgh, read a paper on "The Medical Management of the Cancer Patient," which is practical and helpful to the general practitioner, who usually has to care for these hopeless cases.

For the relief of pain, codeine, morphine, and Schlesinger's solution used in the order named. As a substitute for drugs, cordotomy may be performed at any level below the fourth cervical (phrenic) nerve with a resulting complete relief from pain below that level. In feeding cancer patients, hydrochloric acid and pepsin should be given after meals. If gastrostomy is to be done, do it early before the patient is too exhausted to stand the operation. To combat the anemia of cancer, liver extract should be given, and blood transfusion resorted to regularly. Linseed oil by mouth or per rectum is useful in overcoming the constipation incident to the prolonged use of opiates.

Dr. Simonton concluded with a plea for a large degree of kindness and consideration for the cancer patient on the part of the doctor. Advanced cancer is a hopeless disease. The suffering and prospect of an early demise make these patients candidates for our

utmost sympathy. They are deserving of all the devices at our command that may make their last hours free from the torments of pain and the terror of death.

Luncheon was served.

The radiological section held a separate session at 2 p.m.

W. E. Reilly presided, about 70 radiologists were present, who discussed their common problems with the idea of developing newer and better technic. The examples of Dr. Cole and his colleagues of New York were cited in the plan for making better diagnoses. Films and slides were shown which initiated a profitable discussion.

At the afternoon general session, Samuel J. Waterworth, Clearfield, read a paper, "Is Cancer Curable?" As did all other speakers, he stressed the value of early diagnosis, and the need for the physician and surgeon to have opportunity for proper study of a case. He spoke of those who complain of the costs of hospital care, stating that as he goes from his home to the hospital, he hardly can count the number of automobiles, the maintenance of any one of which must cost each month what a hospital would charge for diagnostic care.

The conclusions were that cancer is curable in most instances, provided it is seen early and treated radically.

Harold L. Foss, Danville, spoke on "Present Status of Our Knowledge of Cancer." Dr. Foss said in part: Even though the actual determining cause of cancer is not known, its control is very possible. A few brief records were read of 11 cases seen in the past few weeks, most of the patients had known of the existence of possible cancer from weeks to months before consulting a doctor. Many cancer victims are responsible by neglect for dying of cancer.

It would not be well for all professional persons when writing for lay consumption to have their papers edited by a layman before reading, for no matter how simple the doctor may think he is couching his words, most of his discourse is over the average layman's head.

Bernard P. Widmann, Philadelphia, gave a talk on "The Value and Limitation of Roentgen Ray and Radium in the Treatment of Cancer, Especially in Advanced Cancer." He stated that although the treatment of cancer by roentgen ray and radium had made considerable progress in the past 2 decades, the doctors and the public are prone to expect too much from this treatment. They expected cures in advanced cases whereas only palliation can be expected. Roentgen ray and radium in treatment of cancer are effective only if used early.

The following summary was given: Curability of cancer from surgery, roentgen ray, and radium is in direct ratio to the duration of the lesion; early treatment; relatives and friends hear only of a few successes—very often immediate members in families are cured but no one knows anything about it. Everybody hears of failures. Condemnation of radium and roentgen rays often results from good intentions of radiologists to try to help or contribute something that might possibly help a hopeless case. A few weeks later the patient dies and death is ascribed to the radium, when as a matter of fact it was due to the disease which was treated too late; persons have fear of reactions on the skin, they have extremities removed, breasts and kidneys removed, but immediately become panicky if they get a skin reaction. This causes the physician very often to temporize the treatment. Fetish of public and physicians to demand cure is cause of chasing public to quacks. We still have a group of advanced hopeless

cases of tuberculosis—yet we know the specific germ—but by proper management, fresh air, food, rest, sunshine, *etc.*, the death rate from tuberculosis has been reduced one half; high blood pressure is controlled by regulation of food, exercise, *etc.*, and so is diabetes. No one has ever isolated the germ of smallpox, yet control of smallpox has made the disease such a rarity that today there are many physicians and medical students who have never seen a case of smallpox. There is a specific antitoxin against diphtheria and tetanus, but all the antitoxin in the world will not cure these diseases in the last stages.

George Crile, Cleveland, presented the subject of "The Genesis of Cancer." He stated that cancer like all other living things is protoplasm. It is a modified protoplasm and originates within the host as a result of incomplete conversion of normal functioning cells. Cancer carries no fever or leukocytosis. Cancer cells in most cases perform no physiologic function. Their sole activity is growth while the sole activity of normal cells is function.

Three lines of attack were offered for the solution of the question of cell change in the genesis of cancer: (1) The estimation of the growth and functional activity in normal and abnormal protoplasm. (2) Ascertaining whether or not normal protoplasm can be taken apart and put together again in a way that the protoplasm will lose its power of function, and like cancer have only the power of growth. (3) An evaluation of the factors that are known to change a normal cell into a cancer cell. The results of these investigations have brought out the following conclusions. Prominent in the causation of cancer are 3 factors: (a) Repeated, slight injuries to normal tissue. (b) Hyperacidity and bacterial toxins in the tissues. (c) The existence in the tissues of a positive electric charge, usually a normal accompaniment of the acid tissue reaction. Such tissues are more often the seat of cancerous change than tissues in which the electric potential is low and the chemical reaction is alkaline.

The pathologists met in separate session at 2:00 p.m., H. B. Anderson presiding. The following papers were presented: "Remarks Upon the Mixed Tumors of the Salivary Gland Type," by Joseph McFarland, Philadelphia; "Osteitis Fibrosa, Bone Cysts and Benign Giant Cell Tumors," by Eugene Whitmore, Washington, D. C.

At 6:30 p.m., dinner was served to about 500 doctors and lay visitors.

James S. Taylor, M.D., Altoona, presided. C. C. Little, New York City, presented a paper on "Recent Advances in Studies on Heredity in Cancer." Dr. Little gave description of the laboratory methods in vogue in present-day study of cancer in mice. He showed the analogy between mice and the human, *viz.*, susceptibility to cancer and other pathologic conditions. He elaborated on the methods used in securing a uniform strain of mice and also on the results of inbreeding, *etc.* The principal deductions were: Cancer is uncontrolled growth; it is not inherited, but a tendency to form cancer is more prevalent in some families than in others; it is a product of long continued irritation; sex is a factor in cancer of the breast; and the female ovary has a distinct effect in the production of cancer. The talk was illustrated by slides, graphs, and statistical tables.

George Crile, Cleveland, gave a "Comparison of Methods of Treatment of Cancer." His remarks were based upon his own experience and that of his associates in 9565 cases of malignant tumors of the various

tissues and organs of the body. Of these 2976 were treated by operation only, 1478 by operation and radiation, 2190 by radiation only, and 2921 were not suitable for or refused operation; 5282 of the patients seen prior to 1931 have been traced. Of these 1409 have survived for 3 years or more and 873 for 5 years or more. The figures quoted covered practically all types and locations of cancer in the human body. It should be emphasized first of all that no general rule can be given for the treatment of cancer in every part of the body or of every carcinoma in any one part. We, therefore, base our judgment upon the accumulated end results of the various methods of treatment. As for precancerous lesions, however, wherever situated a brief general rule does apply, namely, they should be completely removed when possible, otherwise left alone.

The paper was considerably over the heads of the greater part of the lay audience.

The chairman and his committee on arrangements deserve the highest praise on the preparation for and conduct of this meeting. No detail was overlooked. The scientific papers were practical and informative to the general medical men.

JOHN D. HOGUE, *Reporter.*

Convention of The Maine Medical Association.

The eighty-second annual meeting of the Maine Medical Association, held at Bangor, May 28, 1934, proved to be one of the most successful ever held. The past few years have shown a gradual but constant development in the scientific work of the association, a definite trend toward more emphasis upon the educational side. This has been manifested not only in the annual meetings but, to an appreciable extent, in the meetings of the constituent county societies as well. This has awakened a greater interest in the work of the association, especially among many younger members who have found inspiration and help in the programs.

The innovation of holding the first meeting of the House of Delegates on Sunday evening seemed a popular move, as it enabled members to save a day by coming Sunday. One move, of considerable importance to the association, was the decision that, in the future, the annual meeting be held in some resort hotel, and that several clinical sessions be held during the year in the various hospital centers sponsored by the association.

More interest than ever was manifested in the conferences. Each of the 40 was well attended. Each leader presented his subject in a way, showing a proper appreciation of its various aspects, and encouraging free and frank discussions. The value of these conferences from the educational side is becoming more apparent each year. This year, in addition to the review conferences in ophthalmology and otolaryngology, as presented last year, review conferences were given in medicine, surgery, and pediatrics. There have been requests in obstetrics, gynecology, and neuropsychiatry. These review conferences should soon become the most valuable feature of the meeting.

A great deal of the success of these sessions was due to the policy of the presiding officer in strictly adhering to the rule of limiting papers to 20 minutes. This prevented the program dragging and allowed adjournment before the audience became unduly tired. It was interesting to note that there were quite as many present for the last papers as at the beginning, in contrast to some previous years when this rule was not enforced. *Maine Medical Journal*, June, 1934.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

THE TENTH ANNUAL CONVENTION

DEAR AUXILIARY MEMBERS:

We have entered on the last quarter of this auxiliary year. As the time lessens let us put into definite shape plans that will insure the on-ward movement of our auxiliaries.

The annual meeting, which will be the tenth anniversary of the organization of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania, will be held in Wilkes-Barre, October 1 to 4, inclusive.

1. Keep our convention in mind.
2. Make certain that your auxiliary is represented by your president. She is the one on the executive board authorized to speak for you, and she should be there to look after your interests.
3. Also plan if possible to go yourself.
4. See to it that publicity is given the convention in all parts of your county.

Responsibility should not be shifted to the shoulders of a few, but each member should give to the convention sessions her interested attention. When the convention is not in business session, ample opportunity will be afforded for the enjoyment of the social and entertaining features which Luzerne County Auxiliary members are arranging.

Read the tentative program in this JOURNAL.

Send a good delegation from every county auxiliary to the convention in Wilkes-Barre in October.

FLORENCE LYON, *President*.

MESSAGES FROM THE NATIONAL AND STATE PRESIDENTS

The editor requested contributions for this number of the JOURNAL from Mrs. Robert W. Tomlinson, the new national president of the auxiliary, and from Mrs. Edward Lyon, State president.

Both responded most graciously, Mrs. Tomlinson sending her inaugural address as well as bringing to our members part of an address she gave in response to Mrs. Musser's welcome to New Orleans, 1933, which is as true now as then.

Mrs. Lyon gave her impressions of the Cleveland Convention and also sent a short message to auxiliary members in regard to the Tenth Annual Convention to be held at Wilkes-Barre in October.

INAUGURAL ADDRESS

MRS. ROBERT W. TOMLINSON, Wilmington, Del.

It is with deep appreciation of the honor conferred upon me, and of the duties now mine, that I come, as your national president with this, my first message to you. During the 12 years that this organization has been in existence, there has been a steady growth, both in strength and numbers, so that now it embraces 39 states and the District of Columbia. The Empire State, New York, is about to inaugurate a state organization with the coöperation of the National Auxiliary. I have every confidence that before another year rolls around, there will be many new members added to our list from this great state. This may not be a speedily accomplished task, but quality of organization far exceeds growth based on numerical index alone. Much of this is due to the wise judgment and leadership of your past officers. I find an increasing interest in auxiliary work along medical lines in connection with approved health organizations. There is a wide field for the spread of authentic medical information and through these organizations our auxiliary members may distribute much material furnished by the auxiliary and the American Medical Association. I would suggest that a comprehensive list of this be compiled and sent to State Presidents and Public Relations Chairmen for their information and use. I also deem it advisable for auxiliary members to accept memberships on Committees of Women's Clubs, when possible, in order that they may furnish speakers or information which is available to them as doctors' wives.

I urge that every effort be made to promote the circulation of *Hygeia*. That is our definite responsibility. This, not necessarily through its sale, but through its purchase and placement in schools, libraries, beauty parlors, and other places in which magazines are read. I suggest that health chairmen of Parent-Teachers' organizations be reminded of the excellent reading and study matter it contains.

If the opportunity offers, keep yourself informed on legislation of interest to the medical profession and if requested by your state medical society, help if possible. The course of a legislation bill through its various channels is one of great interest.

I hope that you will read the News Letters carefully and also the auxiliary articles in the *Bulletin*. Much of interest and inspiration may be found there and many new ideas are exchanged in this way.

I trust that you will not put too small an emphasis on the social or friendly side of the auxiliary. To me it has no finer attribute than the mutual understanding of each other as doctors' wives, that we have gained. We cannot be an honored part of that great profession, without gaining a deep insight into the real values of life. For centuries the medical profession has dealt with the sorrows and tragedies of human existence and learned to cope so successfully with them that the span of life has progressively lengthened. Now, added to that have come the marvelous discoveries which prevent illness. Causes were sought for and preventive treatment found. Gone are epidemics of smallpox, typhus, typhoid, yellow fever, malaria, diphtheria—

tuberculosis can be cured if treated in time. Humanity lives in a state of blissful oblivion of these things. It enjoys safe water, clean milk, and much else as well, and all because of the untiring study, research, and sacrifice of these men of ours and their predecessors. So I pray you, cherish the ethics that have been theirs through the centuries. May we as individuals and as an organization look up to their ideal as our beacon light.

To you who have honored us with your confidence and chosen us as your national officers, may I pledge our sincere and earnest efforts to steer a course worthy of the medical profession, our beloved predecessors, and you. And if at the end of our term of office, we shall have invited your approval, we shall be more than repaid. It is our hope that we justify your trust in us, and that you may feel your national organization is truly "The tie that binds."

EXCERPTS FROM RESPONSE TO WELCOME

New Orleans, May, 1932

One great bond we have in common, one ideal that we hold highest among our earthly ones—the bond, that of participating in the practice of the noblest of professions; the ideal, that of using our services wisely in the interest of that profession and mankind, and proving ourselves true helpmates both individually and collectively. Collectively, we are a strong force that may be of much use to the medical profession. We who know the unselfishness of these men can do much to enlighten a frequently misinformed public about the true character of medical work and its plans for public health and welfare. We can, in a nonaggressive way, offset much of the wicked propaganda constantly kept before an ignorant and deluded populace.

With this in mind, let us use our time wisely, make our plans carefully, and thank God for the opportunity to be of service to this profession of which we are an honored part.

CONCERNING THE CLEVELAND CONVENTION

MRS. EDWARD LYON, WILLIAMSPORT, PA.

Looking back over those lovely June days spent in Cleveland in attendance at the twelfth annual meeting of the Woman's Auxiliary to the American Medical Association, I am still most impressed by the number of women who, counting miles as nothing compared to their interest in the Auxiliary, had traveled 3 and 4 days in order to attend, coming even from far-away Texas, California, and Oregon. The complete registration numbered 466, exclusive of Cleveland women of whom 329 registered.

Ohio physicians have not yet felt the need of an auxiliary to their Medical Society, but their wives were most interested in the proceedings and proved themselves excellent hostesses, the social features of the convention being carefully planned—and all were greatly enjoyed.

In the front of the official program appeared this "Greeting." "To guests, visitors, and friends of the American Medical Association, the Committee for the Entertainment of Women attending the Cleveland Convention extends a genuine and most cordial welcome. The program has been planned for your enjoyment.

Those who wish may attend the meetings, others may seek recreation and diversion. The doors of Cleveland's homes and cultural centers are open to you during this week of June 10 to 16."

Mrs. Clyde L. Cummer, chairman, and her committees, were vigilant in their attentions. Hostesses were stationed in the lobbies of several hotels, to assure visitors of a hearty welcome and to give information.

It was a serious group of attractive women, who sat in at the Board meeting the first day, and presented clear motions for discussion and deliberated the best methods of carrying on the aims of the auxiliary.

Officers and committee chairmen were there, bristling with achievements and recommendations, and we rejoiced to see Mrs. Southgate Leigh, Virginia, Mrs. W. Wayne Babcock, Philadelphia, and Mrs. Willard Bartlett, Missouri, who had such a large part in the organization of the auxiliary.

Three former presidents were present and took an active part in the sessions: Mrs. J. Newton Hunsberger, 1930-1931; Mrs. A. B. McGlothlan, 1931-1932; and Mrs. James F. Percy, who filled the unexpired term of Mrs. Freeman, 1932-1933.

Space permits mention of but one of the recommendations referred to and this we choose because of its interest to all Pennsylvania women. Mrs. James Percy, national treasurer, recommended and moved its adoption:

1. "That a substantial sum be allocated to the Corinne Keen Freeman Memorial Fund each year at the National Convention, as part of the duties of the voting body, until it reaches a sum of \$4000.

2. "That for this year a sum of \$500 be ordered transferred to this Fund.

3. "That this Fund shall be known as the Corinne Keen Freeman Revolving Fund, and its purpose for the use of incoming Presidents."

As this fund when used by the presidents must always be replaced, it will be a tribute in perpetuity, to our beloved leader, Mrs. Freeman.

Reports of Public Relations Chairmen indicated that a larger number of auxiliary members than ever before are serving on the boards and committees of social agencies, thus broadening their influence.

Among the interesting exhibits was that prepared by Mrs. Fielding O. Lewis and Mrs. W. Burrill Odenatt, for Pennsylvania. It was a clever model of Philadelphia's Medical Hall, displaying in its environs, suggestions of the work of Philadelphia County in part, for the year. The other exhibition from Pennsylvania was a poster illustrative of Berks' County Radio Broadcasts, prepared by their chairman of *Hygeia*, Mrs. Cecil F. Freed.

Mrs. Rogers N. Herbert, Nashville, Tenn., was made president-elect. Mrs. James Blake, of Hopkins, Minn., handed over the Woman's Auxiliary to Mrs. Robert Tomlinson of Wilmington, Del. An unusual and beautiful tribute was paid Mrs. Tomlinson by the Medical Society of the State of Delaware, when following her installation they presented her with a basket of gorgeous flowers, and in a telegram expressed their esteem for her, and their congratulations to the national auxiliary upon having her for its president.

Mrs. Tomlinson is full of enthusiasm, sympathetic, and helpful, constructive in suggestion and a keen executive, and so it will be well with the auxiliary. The Cleveland Convention is now part of auxiliary history, and to our new national president we pledge Pennsylvania's whole-hearted support.

COUNTY AUXILIARY REPORTS

Bucks.—The auxiliary conducted its meeting at Grand View Hospital, with a good representation of members in attendance, June 13.

The *Hygeia* Committee reported progress.

The guest and speaker was Mrs. John A. Farrell, councilor for the Second District, who spoke of the work of the auxiliaries in other counties, but warned us not to have the "tail wag the dog," but rather wait until we were assigned a project by the parent society.

Mrs. Howard Mellor, president-elect of the Chester County Auxiliary, accompanied Mrs. Farrell and outlined the work of their auxiliary, and told how the doctors have asked the women to contact all organizations and arrange for public meetings to be known as "Community Health Meetings," talks being given by members of the Medical Society. The drive is being conducted in order to educate the laity on the prevention of maternity mortality and also the danger of neglecting to consult the physician for "stomach ache" and the danger of taking purgatives under such conditions. In this way the doctors hope to bring to the public valuable information and also help eradicate some of the isms and cults in Pennsylvania.

Butler.—Among the events of the auxiliary work during the past season, we especially remember a paper on "Infantile Paralysis," by Mrs. William J. Armstrong on Sept. 12, 1933.

Regular business meetings were held at each session.

The meeting of the ninth councilor District was held at the home of Mrs. Leslie R. Hazlett on Oct. 25, 1933. Allegheny, Indiana, Venango, Clarion, and Butler Counties were represented. Discussion of work of the various counties was carried on under the leadership of Mrs. Armstrong.

Miss Wilson, superintendent of the hospital, reported on the needs of that institution and expressed her appreciation of the success of Hospital Donation Day during which the hospital received fruits, vegetables, honey, etc., to value of \$500 or \$600. During the tea time at the end of the meeting the members were given the opportunity of becoming personally acquainted.

On December 12, 1933, Mrs. John L. Grossman, chairman of the Public Health Committee, entertained the members with motion pictures on "The Conquest of Diphtheria" and "Too Many Pounds." Dr. Mary P. St. Clair gave a talk on periodic health examinations to prevent illness and to prolong life. Arrangements were made to furnish the hospital with two Christmas trees.

On March 13, 1934, the nominating committee was appointed as follows: Mrs. Ralph Walker, Mrs. John V. Cowden, Mrs. John M. Dunkle. Arrangements were made for the luncheon in June. Twenty-five dollars were given to be used for articles needed in the doctors' room. It was later decided to use this to buy rugs.

On June 12, 1934, the annual luncheon was held at the Nixon Hall, 23 members were present. The report of the nominating committee was accepted and the following officers elected: President, Mrs. David G. Jones; vice presidents, first, Mrs. Thomas McC. Maxwell, second, Mrs. Alfred H. Ziegler; recording secretary, Mrs. John L. Grossman; treasurer, Mrs. W. LeRoy Eisler; *Hygeia* chairman, Mrs. Guy A. Hunt.

Mrs. Hazlett gave a talk on "Archives of Butler County."

Fayette.—The closing day of 1933-34 stands out as a red letter day for the auxiliary.

Mrs. Edward Lyon, State president, was present and gave an unusually inspiring address. Mrs. Larry D. Sargent, president-elect, also presented some suggestions which she hopes to carry out next year. Mrs. S. A. E. Brallicr, district councilor, took advantage of this time to outline her plan of work, as members were present from adjoining counties. Another honor guest was Mrs. Joseph J. Meyer, State recording secretary.

In connection with this meeting, the annual health meeting was held. This session was particularly interesting as an entirely different aspect of health was given by the speaker, Dean Moor, of Trinity Church, Pittsburgh. The theme was the hope of America's future and it was impressed upon us, to have an open receptive mind, a respect for the past—a knowledge of persons, and a genuine interest in them.

In June the annual outing for underprivileged children was given in the form of a luncheon and motion pictures. The time was selected in order to have the picture an inspiration and help. About 100 children were carefully selected from the various health organizations.

During the year the meetings have been instructive, speakers being selected from all walks of life. Attendance has been good and we feel our organization is an asset to the community.

Lebanon.—On Monday, June 18, the auxiliary held its annual business meeting with election of officers at the Lebanon Country Club. Mrs. Anna Kauffman was hostess. All officers were reelected: President, Mrs. E. B. Marshall; vice president, Mrs. John Walter; second vice president, Mrs. Paul D. Reich; secretary, Mrs. Curtis L. Zimmerman; treasurer, Mrs. Jannetta Witmer.

The following committees were appointed by the president: Legislative, Mrs. W. Horace Means; Public Relations, Mrs. J. DeWitt Kerr; Public Health Education, Mrs. W. Harold Diehl; *Hygeia*, Mrs. Jannetta Witmer; Visiting, Mesdames Grace Marshall, Clyde J. Saylor, and Seth Light.

The auxiliary voted a \$75 contribution toward the State Medical Benevolence Fund.

At a recent meeting, Mrs. Edward Lyon, State president, and Mrs. S. Dana Sutliff, of the Franklin County Auxiliary, were guests and gave helpful talks on health, preventive medicine, and philanthropic work done by the auxiliary. Several members attended a reciprocity meeting at Shippensburg, May 9, and brought back interesting reports.

Mrs. J. DeWitt Kerr and Mrs. Irwin S. Lape will be hostesses for the meeting, Sept. 10.

Lycoming.—The registration of the annual meeting of the national woman's auxiliary was 466, which included women from every state in the United States. Forty of that number we know were from Pennsylvania, and probably many more of whom we did not know. But we point with pride to the fact that the Seventh Councilor District was represented by 10 members of the Auxiliary, a splendid showing for one district.

Montgomery.—The auxiliary, of which Mrs. Herbert C. Shearer is president, entertained the members of the Montgomery County Medical Society and their families at the annual picnic which was held at Fisher's Park, Skippack, Pa., June 20. There were 140 in attendance. Swimming, boating, water sports, quoits, and

baseball were enjoyed by all. Supper was served. Mrs. John Simpson was chairman of the picnic.

Washington.—A large attendance was present at the luncheon held in the George Washington Hotel, many guests were from Greene, Fayette, and Cambria Counties as well as a large number from Washington County.

Among the distinguished guests present was Mrs. Edward Lyon, of Williamsport, State president, who made the principal address of the luncheon hour. Mrs. L. D. Sargent, local president, presided. Short talks were made by Mrs. S. A. E. Brallier, of Conemaugh, district councilor; Mrs. C. H. Smith, of Uniontown, past State president and founder of the local auxiliary; Mrs. Robert Jeffrey of Uniontown, State chairman of Public Relations. Preceding and at the close of the luncheon Mrs. R. G. Emery gave several readings.

Preceding the luncheon a business session was held in the Chamber of Commerce and the reports of the year were given and election of officers held. This is the last meeting until fall. The State meeting will be held in October in Wilkes-Barre.

Medical News

Marriages

MISS BEATRICE WILSON to Dr. Arthur C. F. Zobel, Johnstown, June 7.

MISS ELIZABETH HEPLER, Meadville, to Dr. Francis I. Taylor, Altoona, May 22.

MISS RUTH JEANNE BEARD, of the Harrisburg office, to Mr. Harold Kahler, Harrisburg, July 12.

MISS LIDA WENDLE, Lewisburg, to Dr. William Devitt, founder and superintendent of Devitt's Camp, Allenwood, recently.

Deaths

HARRY IRVIN SHOENTHAL, New Paris; Jefferson Medical College, 1906; aged 52; July 10.

CHARLES JAMES DEVLIN, Swissvale; Jefferson Medical College, 1916; aged 46; recently.

LOUIS ELSWORTH LANGLEY, Williamsport; University of Maryland School of Medicine, 1910; aged 50; May 31.

CHARLES HAIGHT CONOVER, Philadelphia; Hahnemann Medical College, 1879; aged 75; July 2, from self inflicted bullet wound.

HIRAM ORVILLE KING, Curwensville; Jefferson Medical College, 1893; aged 66; July 5. He is survived by one son, Dr. H. Orville King, Philadelphia, and 3 sisters.

JULIUS ARTHUR BULLARD, Montrose; Hahnemann Medical College of Philadelphia, 1872; aged 83; May 25, in Miami, Florida, of coronary thrombosis and arteriosclerosis.

WILLIAM STARICK RUCH, Carlisle; Jefferson Medical College, 1888; county coroner for many years; served as captain in the Medical Corps of the U. S. A. during the World War; aged 70; June 28. His widow and a son survive.

ABRAHAM EPSTEIN, Philadelphia; Medico-Chirurgical College of Philadelphia, 1910; resident physician at the Philadelphia General Hospital until 1930, retiring because of ill health; aged 48; June 24, following an operation. His widow and a son survive.

WILLIAM JOSEPH WINTERS, Philadelphia; Jefferson Medical College, 1905; formerly ophthalmologist for

the Reading Coal and Iron Company and the Lehigh Coal and Navigation Company, Shenandoah, until 6 years ago when he started practicing in Philadelphia; aged 54; June 22, heart disease.

DAVID PHILIPPS RETTEW, Coatesville; University of Pennsylvania School of Medicine, 1889; conducted a private hospital for some years; member of his county and State medical societies, and a Fellow of the A. M. A.; aged 68; July 11. He is survived by his widow, a daughter, and a son.

DANIEL JOSEPH MONIHAN, Ridley Park; Medico-Chirurgical College of Philadelphia, 1907; aged 53; June 28; following an appendectomy at the Fitzgerald Mercy Hospital, of which institution he was a member of the staff. Dr. Monihan conducted his office at Chester; was a member of his county and State Medical societies, and a Fellow of the A. M. A.

SAMUEL MOSS, Philadelphia; Jefferson Medical College, 1909; aged 58; June 29, after an illness of several months. Dr. Moss was a native of Philadelphia and limited his practice to ophthalmology. He was a member of his county and State medical societies, and a Fellow of the A. M. A. He is survived by 2 brothers and a sister.

JACOB P. STRAYER, Oil City; Jefferson Medical College, 1880; organized the first tuberculosis clinic in this section and was identified with it for 30 years; started the Oil City Hospital, serving with it during the tragic fire and flood of 1892, in which hundreds lost their lives; member of his county and State medical societies; aged 80; July 12, after an illness of 2 years.

JOSEPH MAYER RICE, Philadelphia; Philadelphia College of Physicians and Surgeons; Columbia University College of Physicians and Surgeons, 1881; studied at the University of Jena and Leipzig; editor of *The Forum* magazine for 10 years; founder of the Society of Educational Research; author of several books; aged 77; June 24. He is survived by his wife, a daughter, and a son.

THOMAS HENRY MAYS, Freeland; University of Pennsylvania School of Medicine, 1910; aged 49; July 1, heart attack while visiting at Ocean City, N. J. Dr. Mays was surgeon for the Lehigh Valley Coal Company; member of his county and State Medical societies, and a Fellow of the A. M. A. He is survived by his widow; a son, Thomas H. Mays, Jr., medical student at the University of Pennsylvania; and a brother, Dr. Alexis T. Mays, Brooklyn.

MARJORIE SHARPS JEFFERIES WAGONER, Bryn Mawr; University of Pennsylvania School of Medicine, 1922; aged 38; June 22. Dr. Wagoner had been physician to Bryn Mawr College for the past 10 years, of which institution she was a graduate, class of 1918. She served her internship at the Philadelphia General Hospital, following which she began practice at Bryn Mawr. She was a former vice president of the American Student Health Association. Dr. Wagoner is survived by her husband, Dr. George Wagoner, and 2 daughters.

WILLIAM NEWBOLD WATSON, Merion; Medico-Chirurgical College of Philadelphia, 1892; aged 69; July 1, at the Joseph Price Memorial Hospital, Philadelphia. He had practiced in Philadelphia since graduation, limiting it to the eye, ear, nose, and throat. At various times he had been connected with the Joseph Price Memorial Hospital, Children's Hospital, and Methodist Hospital. A member of his county and State medical societies, and a Fellow of the A. M. A. A widow and 2 sons survive.

CHARLES CHRISTIAN BIEDERT, Philadelphia; University of Pennsylvania School of Medicine, 1897; aged 60; July 11, after 5 months' illness. Dr. Biedert served his internship in the Episcopal Hospital, Philadelphia, and has been on its staff for the past 37

years, during the past 25 years serving as chief of the otolaryngologic department. He was a member of his county and State medical societies, a Fellow of the A. M. A., Medical Club of Philadelphia, and consulting otolaryngologist to the Kensington Hospital for Diseases of Women. He is survived by his wife, a son, and a daughter.

HARRY STOBBER CARMANY, Philadelphia; University of Pennsylvania School of Medicine, 1893; aged 66; July 14. Dr. Carmany was born in Philadelphia, July 14, 1868, and has practiced mainly in the Roxborough section. During the World War was a member of the army medical staff overseas and was retired with the rank of major. A Fellow of the American College of Surgeons; Fellow of the Philadelphia College of Physicians; member of 21st Ward Medical Society; and past commander of the Thomas Emery Post, American Legion. Surviving are his widow and a brother, Dr. W. C. Carmany, of Atlantic City, N. J.

FRANK L. SCHUM, Huntingdon; University of Pennsylvania School of Medicine, 1886; aged 69; June 25. Dr. Schum was born in Altoona, March 11, 1865. At age 15, he entered Lebanon Valley College, Annville, and was graduated in 1883. He began practice in Shirleysburg, Huntingdon County, Pa., where he remained until 1894, when he moved to Huntingdon. In 1888, he performed the duties of coroner of the county, later was elected coroner, which office he held until 1932. Surgeon for the Pennsylvania and Huntingdon and Broad Top Railroads; member of the staff of the J. C. Blair Memorial Hospital; member of his county and State medical societies; Fellow of the A.M.A. His widow, a daughter and 2 brothers survive.

LINCOLN E. KIDDER, State College; Jefferson Medical College, 1896; aged 70; June 3, complications superinduced by a heart ailment.

Dr. Kidder was born near Huntingdon, June 19, 1864, the son of Mr. and Mrs. Curtis Kidder. Following his early education in the schools of Huntingdon County, and medical school, he began his practice in 1897 in Boalsburg, later moving to State College. He was a member of his county and State medical societies. During the World War he acted as chairman of the county draft board and was given a captain's commission in the Reserve at the close of war. He was director of the First National Bank of State College and a member of the borough council. He is survived by his widow and daughter.

GREGORIO M. GUITERAS, Yeadon; University of Pennsylvania School of Medicine, 1885; aged 71; July 5, at the Philadelphia General Hospital.

Dr. Guiteras was a native of Matanzas, Cuba, a son of Cuban parents, but he received practically all his education in the United States. He was a graduate of LaSalle College, Philadelphia. All but 2 years of his professional life was spent in the service of the United States Government. Upon graduation in medicine he entered the United States Marine Hospital Service, and in 1888 was commissioned assistant surgeon in the United States Public Health Service, and during the following 40 years attained the rank of senior surgeon, retiring with the rank of lieutenant colonel. He was quarantine officer during the intervention of the United States and Cuba, 1899-1902, and aided in the suppression of all the yellow fever epidemics occurring in this country during his career. He was United States representative at the Pan-American Medical Conference at Santiago, Chile, in 1911, and at Montevideo, Uruguay, in 1920. He also served as sanitation officer of the Seventh Naval District during the World War. Dr. Guiteras retired in 1927.

Miscellaneous

DR. CONSTANTINE P. FALLER, Harrisburg, is doing postgraduate work at Harvard University, Boston.

DR. ARTHUR H. GERHARD, Overbrook, who has been living in Vienna, returned to this country recently.

DR. HERBERT B. CARPENTER and his sister sailed recently for Europe. They will spend some time in Russia.

DR. AND MRS. GEORGE EARLE RAIGUEL, Philadelphia, sailed recently for a several weeks' cruise of the Baltic.

DR. AND MRS. GEORGE F. PFAHLER, Overbrook, sailed recently for Europe, where they will spend some time in Switzerland.

DR. HENRY ULRICH has been appointed coroner of Snyder County by Governor Pinchot to succeed the late Dr. Herman, of Middleburg.

DR. CHARLES M. THOMAS, Sunbury, has returned to his home after being in the Mary M. Packer Hospital for several months because of an accident.

DR. FAY A. HEFLIN, Philadelphia, was elected a member of the American Psychiatric Association at the annual meeting in New York City, June 1.

J. TORRANCE RUGH, Philadelphia, operated on 17 patients at the Shamokin State Hospital, June 21, at the annual Crippled Children's Operative Clinic.

THE ANNUAL CLINICAL CONGRESS of the American College of Surgeons will be held in Boston, Mass., Oct. 15 to 19, 1934. The sessions of the Congress will be held at the Copley-Plaza Hotel.

EDWARD LYON, JR., AND J. STANLEY SMITH were recently awarded the 1934 prize provided by the Williamsport Hospital staff, to the interns submitting the best papers on subjects interesting to the medical profession.

WILLIAM L. ESTES, SR., Bethlehem, received the honorary degree of Sc.D., at the annual commencement of Lehigh University, June 12. Dr. Estes lectured on physiology and hygiene at Lehigh University from 1883 to 1923.

DR. CHARLES C. ENGELHART, Harrisburg, is doing postgraduate work at the University of Vienna, arranged by the American Medical Association of Vienna and given in English for the American physicians. Before returning home, he will visit Italy, Switzerland, and France.

AT THE ANNUAL MEETING of the Philadelphia Urological Society of the American Urological Association, May 28, the following officers were elected: William J. Ezickson, president; James F. McCahey, vice president; Theodore R. Fetter, secretary-treasurer.

WALTER F. DONALDSON, vice chairman of the Health Committee of the Pittsburgh Chamber of Commerce, has been made chairman. Other members of the committee are T. Lyle Hazlett, Philip E. Marks, Ray P. Moyer, R. R. Jones, S. B. Moon, and William M. Holtz, who is vice chairman.

MARTHA TRACY, dean of the Woman's Medical College of Pennsylvania, Philadelphia, was elected a Fellow of the College of Physicians of Philadelphia, in May. Dr. Tracy is second woman to be elected to the college, Dr. Catherine Macfarlane, professor of gynecology, Woman's Medical College, having received this honor in 1932.

THE CHESTER COUNTY MEDICAL SOCIETY is completing arrangements for a fall campaign, looking forward to the reduction of appendicitis mortality as well as maternal mortality by addresses being delivered in 17 localities throughout the county by members of their county society, in October and November, 1934.

THE FRIDENBERG Memorial Surgical Building of the Jewish Hospital, Philadelphia, was dedicated June 24. The building was constructed with a legacy from the late Mone Samuel Fridenberg and erected at a cost of \$400,000. The building is 5 stories high and will accommodate 100 ward patients with no provisions for private or semiprivate patients.

DR. WILLIAM SNOW MILLER, Madison, Wis., was awarded the Trudeau Medal for the greatest contribution toward the prevention of tuberculosis in this country, at the annual meeting of the National Tuberculosis Association held in Cincinnati, May 14 to 17.

DR. SIMON FLEXNER, director of Rockefeller Institute for Medical Research, has been selected to write the biography of the late William H. Welch, M.D., of Baltimore.

AT THE TENTH ANNUAL MEETING of the American Association of the History of Medicine, at Cleveland, June 11, the following officers were elected: E. B. Krumhaar, president; C. N. B. Camac and W. S. Middleton, vice presidents; E. J. G. Beardsley, secretary-treasurer; C. V. Weller, incoming member of the council. Any one interested in the subject and desiring to become a member of the association, communicate with Dr. Beardsley, 1919 Spruce St., Philadelphia.

THE INTERNATIONAL ASSEMBLY of the Inter-State Post Graduate Medical Association of North America will be held in the Public Auditorium, Philadelphia, Pennsylvania, Nov. 5-9, 1934. Many distinguished teachers and clinicians will appear on the program. A major list of the names of the contributors to the program, with other information, appears on page xiv of this JOURNAL. All members of The Medical Society of the State of Pennsylvania are cordially invited to attend. Registration fee of \$5 admits all members of the profession in good standing.

THE WOMEN PHYSICIANS of the Luzerne County Medical Society invite and urge the attendance of the women physicians of the State to attend the banquet held Tuesday, Oct. 2, at 7 p.m., in Wilkes-Barre during the convention of the State Medical Society.

An invitation is also extended to the women physicians and members of the auxiliary to a tea, Wednesday afternoon, Oct. 3, at the country home of Mrs. William Cunningham, Hillside, a sister of Dr. Donald Guthrie, president of The Medical Society of the State of Pennsylvania.

A "RAPID INCREASE" in insanity among former service men was reported by leaders of the American Legion's Rehabilitation Committee at a regional conference held in Chicago, June 23. Veterans suffering from mental collapse far exceeded hospital facilities. It was suggested that the government transform some tuberculosis sanatoria into neuropsychiatric wards, on the basis that tuberculous cases among veterans have been declining since 1930. Some 2000 extra beds are needed in midwestern hospitals to care for veterans with mental disorders.

THE 1934 GRADUATE FORTNIGHT of the New York Academy of Medicine will be devoted to a consideration of gastro-intestinal diseases. The Fortnightly will be held Oct. 22 to Nov. 2. Sixteen important hospitals of the city will present coordinated afternoon clinics and clinical demonstrations. At the evening meetings prominent clinicians from various parts of the country who are recognized authorities in their special lines of work will discuss the various aspects of the general subject. The profession generally is invited to attend. A complete program and registration blank may be secured by addressing Dr. Frederick P. Reynolds, the New York Academy of Medicine, 2 East 103d Street, New York City.

AT THE BIENNIAL SESSION of the American Nurses' Association, held in Washington, D. C., in April, a resolution unanimously adopted and without discussion was to the effect that the association "go on record as approving an 8-hour day as the regular working day of nurses." The resolution further stated that such a working arrangement "may be obtained without materially increasing the cost of such service to the patient."

It would seem that the making of this statement was based on what the association considered a very successful experiment in St. Louis by which plan the nurses worked in 3 shifts of 8 hours each, instead of 2 of 12 hours.

The argument on the part of the association is that though the nurses will have a lower daily wage under the 8-hour scheme, in the long run they will receive employment more days and as a consequence will be able to live a more normal life.

EDWARD L. BAUER, professor of pediatrics, Jefferson Medical College, Philadelphia, conducted the second Seminar of Postgraduate Study at the Robert Packer Hospital, Sayre, June 14. He dealt with the various diseases of children. The Seminar was well received by about 70 visiting physicians. A dinner was held at the Minaphe Inn at six o'clock, followed by an address by Dr. Bauer on "Anorexia and Various Phases of Immunology as Related to Children." This postgraduate work is being well received and has caused much favorable comment.

The third Seminar of Postgraduate Study was conducted by Catherine Macfarlane, professor of gynecology, Woman's Medical College, Philadelphia, June 21, on office gynecology. Dinner was held at the Wilbur Hotel, followed by a lecture by Dr. Macfarlane on "Various Gynecologic Diseases," with lantern slide demonstrations.

Vaughn C. Garner, assistant professor of dermatology and syphilology, University of Pennsylvania, Philadelphia, conducted the fourth Seminar, June 28. The afternoon session was devoted to the study of many skin conditions both common and rare. Dinner was served at the Minaphe Inn at 6:15, followed by a lantern demonstration and talk on dermatologic subjects.

At the fifth Postgraduate Seminar, held July 5, Russell S. Boles, chief gastro-enterologist, Philadelphia General Hospital, and associate gastro-enterologist, University Hospital, Philadelphia, conducted a clinic on "Problems in Gastro-enterology." In the evening, following a dinner at the Wilbur Hotel, Dr. Boles, assisted by Jacob G. Cohen, roentgenologist at Eagleville Sanatorium, Eagleville, Pa., gave a lantern demonstration on "Intestinal Tuberculosis." Dr. Cohen also showed roentgenograms taken by a new technic.

AT THE RECENT SESSION of the New York Assembly, both the upper and the lower house approved an Act to amend the education law, in relation to practice of osteopathy, notwithstanding the fact the New York State Medical Society was unalterably opposed to the amendment.

Governor Herbert H. Lehman did not approve, for the following reasons: "This bill eliminates the present requirement of the Education Law that an osteopath shall not perform surgery with the use of instruments, and adds a number of provisions which seem to authorize osteopaths to engage in every form of medical practice except the giving of drugs by mouth to cure disease and the performance of certain specified surgical operations.

"This bill is objectionable too because it contains vague, indefinite, and unintelligible language. I refer specifically to the authority which it would convey to osteopaths to use those agencies incidental to the care of the diseases included in the examinations of the Board of Medical Examiners. The Department of Education states that because of ambiguous language it would be impossible to restrict and prevent any type of medical practice other than some types of major surgery.

"Although the proponents of the bill have argued that the intent is that surgical practice be limited to first aid and minor surgery, no such limitations are explicitly written into the bill. While some types of major surgery are prohibited, all other forms of surgery would be permitted, including many operations

(Concluded on page xii.)

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MEDICAL NEWS

(Concluded from page 972.)

which would require a high degree of skill and extended practice.

"I want to make it clear that in vetoing this bill no question is raised as to the substantial value and usefulness of osteopathy. This is generally conceded and recognized. This bill, however, would authorize osteopaths to give various kinds of treatment in which many osteopaths themselves do not claim proficiency since such treatments are very different from the traditional scope of their speciality.

"The bill is disapproved."

(Signed) HERBERT H. LEHMAN.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

"I KNOW JUST THE THING FOR THAT." J. F. Montague, M.D., Medical Director, New York Intestinal Sanatorium, New York City. The John Day Company, 386 Fourth Avenue, New York City, 1934. Pp. 265. Cloth, \$2.00.

A new lay medical publication which warns the public against the dangers of self-medication.

MODERN CLINICAL SYPHILOLOGY: John H. Stokes, M.D., Duhring Professor of Dermatology and Syphilology, University of Pennsylvania; member, Commission on Syphilis and Cognate Diseases, League of Nations' Health Organization. Second edition, revised and entirely reset. 1400 pages with 973 illustrations and text figures. Philadelphia and London: W. B. Saunders Co., 1934. Cloth, \$12 net.

The first edition published in 1926 was reprinted in February, 1927, and again in January, 1928. Clinical syphilology, especially its treatment aspect, has experienced so many diversified changes in the past 5 years that a thorough revision of this valuable work was inevitable. The new edition, May, 1934, has been completely rewritten and contains 256 more pages with 100 new illustrations and text figures bringing the work thoroughly up to date. New material on the use of bismuth and the arsenicals, a new section on acetarsone and the use of tryparsamide, the new treatment of cardiovascular and neurosyphilis, new measures for preventing congenital syphilis and the newer methods of public health control represent a few of the added features in this edition. The material utilized in the present revision is based on the massed records of 75,000 cases of syphilis, the work of the American Clinical Group and the United States Public Health Service representing an investigation of a world-wide scope sponsored by the League of Nations' Health Organization. The aim of the author to provide a practical treatise for the uninitiated student or practitioner as well as an informative work of reference for the expert, has been more than fulfilled. This volume easily ranks as the most modern, comprehensive, and outstanding work on clinical syphilis in the English language.

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No. 12

ERUPTIONS FROM DRUGS AND FROM EXTERNAL MEDICAMENTS*

FRED WISE, M.D., AND MARION B. SULZBERGER, M.D., NEW YORK CITY

In his work on *Drug Eruptions*, published in 1887, Prince A. Morrow laid down the following thesis: "In the proper signification of the term, drug eruptions embrace all congestive and inflammatory changes in the skin, caused by the external and internal use of drugs." Today our concept as embodied in this definition remains unchanged. Thirty-five years ago, however, it was the clinic-morphologic aspects of drug eruptions which held the interest of the dermatologist; today, the immuno-biologic and allergic features are dominant.

Increasing knowledge of immuno-biologic and sensitization phenomena has led to more or less obliteration of what at one time was regarded as a sort of dividing line between dermatitis medicamentosa and dermatitis venenata. We know that not infrequently a fine distinction between the two cannot be drawn and that one often literally merges with, and is indistinguishable from, the other. We use the term "drug eruptions," therefore, in such a sense as to indicate all cutaneous (and mucosal) manifestations in the subject, without regard to the path taken by the drug, whether by oral administration, by injection, by external contact, or by combinations of these.

In the light of more advanced knowledge of sensitization phenomena, it is of interest to recall that it is only a few years since asthma was first recognized as a disease of hypersensitivity toward a great variety of substances; it is frequently said that only since that time have definite ideas been acquired regarding the nature of idiosyncrasy. As a matter of fact, it was the study—many years before—of various drug eruptions by certain dermatologists, among them

Kölmer, Neisser, and Jadassohn, which first attracted attention to the problem of hypersensitivity and which resulted, at a much later date, in stimulating investigations of other allergies, particularly asthma.

Attempts to classify the sequelæ caused by drugs and medicaments have been made by many dermatologists, without, however, much success, chiefly because of the many different angles and facets which inextricably involve the entire subject. In his recent publication on toxicodermas in *Jadassohn's Handbuch*, R. L. Mayer retains the concept of the term "poison" as it was defined by Jadassohn in 1905, in the sense that the term is employed not only in its narrow pharmaco-toxicologic designation, but in its broadest biologic significance; thus, the definition of "toxicoderma," as applied to drug eruptions in general, but more particularly when limited to allergic processes, implies that a "poison" is any substance which can be injurious to the skin, regardless of whether it may be harmful to every individual, that is, whether it can act as a "primary-toxic" agent, or whether it is poisonous only to an individual.

Darier has suggested a similar differentiation between "toxicity" and "intolerance" with respect to noxious agents. Neither this nor any other division which has been suggested is competent to meet the complications of the subject. Perutz, in order to retain the strict pharmacologic significance of the word "poison," has suggested a division into "allergodermas" and "toxicodermas," the former to embrace all idiosyncratic diseases, and the latter to include manifestations due to direct irritation, in all probability of nonallergic nature. In the present state of our knowledge, such a division is not of practical applicability, since in many diseases it is

* Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Oct. 4, 1933.

impossible to determine whether or not an idiosyncratic reactivity underlies them. An equally unsatisfactory division is that of diseases caused by "facultative" substances and those produced by "obligatory irritative" substances, since many substances, which may, for example, in highly diluted form act only as allergens, in strong concentrations may act as primary irritants.

There is a great range of variation in the morphology of the toxicodermas. Contrasted to the relatively uniform clinical pictures originating after contact with primarily harmful substances, in which the injurious agent occupies the foreground and the patient's constitution merely a subordinate place in the clinical picture, much more variegated manifestations characterize those forms of toxicoderma in which the individual capacity of the reacting organism dominates. This variability is, therefore, most pronounced in the allergic toxicodermas. The most common form is inflammatory, particularly eczematous changes, from the weakest erythemas up to the gravest erythrodermas. Macular, papular, urticarial, follicular, nodular, hemorrhagic, telangiectatic, necrotic, hyperkeratotic eruptions may all be seen as well as the most variegated disturbances of the sweat glands, the sebaceous glands, the nails, hairs, and mucous membranes.

Among the toxicodermas, the allergic, anaphylactic eruptions, all those based upon a hypersensitivity, predominate. Unfortunately, we have not yet arrived at any uniformly accepted definition of idiosyncrasy and allergy. The hypersensitivity may be congenital or it may be acquired in the course of life through sensitization, sensitization being a merely demonstrably acquired idiosyncrasy, defined by Doerr (Mayer, *Jadassohn's Handbuch*) as an "abnormal state of increased and qualitatively altered reactivity, occurring under natural conditions of life and manifesting itself after the incorporation of definite substances." The character of the manifestation depends upon the terminal organ on or in which the hypersensitivity reaction takes place. Consequently, the hypersensitivity manifests itself in different types of reaction, as asthma, in the bronchial form; through phenomena on the part of the digestive canal, in the gastro-intestinal form; as hay fever, in reactions of the conjunctiva and the nasal mucosa; and finally, in the form of definite skin reactions.

Anaphylaxis and allergy have in common: The process of sensitization with a certain period of incubation and the initial gradual increase of hypersensitivity after a certain number of days; (2) a dependence upon the amount of

the sensitizing substance; (3) the phenomenon of the transitory (negative) phase; and (4) permanent specific desensitization. In both, the reactivity is specifically adjusted to the eliciting substance; antibodies are demonstrable in both, always in anaphylaxis, occasionally in allergy, and in both the manifested phenomena are very often independent of the chemical and pharmacologic properties of the eliciting substance (criteria according to Doerr [Mayer]). Occasionally, in the purely cutaneous allergies, the presence of reagins has been in some cases successfully demonstrated, for example, through the passive transmission of the reactivity to normal individuals (Biberstein and others). The undoubtedly existing differences between allergy and anaphylaxis are credited with variable importance by individual writers.

Anaphylaxis and allergy, or idiosyncrasy, are not coördinated phenomena, but both idiosyncrasy and anaphylaxis are subdivisions of allergy, as it were. Idiosyncratic diseases, therefore, are allergic, just as the anaphylactic event is allergic. Not all diseases are designated as allergic in which so-called immuno-biologic processes may be demonstrated or surmised; quite arbitrarily, certain authors thus designate only some special forms, *e. g.*, hayfever, asthma, urticaria, Quincke's edema, and lichen Vidal disseminatus, among the eczematous changes (Rost-Mayer). We habitually use the term in a broader sense, applying it to all phenomena in which the immunologic specific altered reactivity is demonstrable.

In a certain number of idiosyncrasies, existence of intolerance to a single, very definite substance can be established by tests or through the nutritional experiment; this is a monovalent idiosyncrasy. Actually, however, a strictly specific monovalence for a single substance hardly ever occurs for, sooner or later, perhaps from the very start, the idiosyncrasy extends into the so-called group hypersensitivity, embracing all chemically related substances. In addition to group hypersensitivity, there may be also simultaneously present, in certain cases, a hypersensitivity for other nonchemically related substances, which, however, possess the same physical properties.

The origin of one specific hypersensitivity may facilitate polyvalent specific sensitizations for further substances. Clinical observations agree with experimental experience; several specific reactivities may be simultaneously produced for different substances in the same animal.

There are certain phenomena in cutaneous hypersensitivity which apparently oppose the accepted concept of anaphylaxis and allergy at

least in so far as the preservation of specific or monovalent sensitization is concerned. Occasionally, a so-called "nonspecific polyvalence" occurs. This can be said concerning all allergic dermatitis and is true in the case of acute or extensive subacute eczema. The patient very suddenly may become "cutaneo-hypersensitive" for an entire series of the most diverse substances with which he has not come in contact at all, and for which he was originally, probably, not hypersensitive. This polyvalence does not originate, as the specific monovalence, as a result of a sensitization through the action of numerous unrelated substances, and it is not apparently connected with any definite idiosyncrasy or definite injurious agent. Not uncommonly, with the healing of the dermatosis the nonspecific polyvalence disappears or diminishes.

A paper on this subject would be incomplete without mention of Milian's "Erythema of the Ninth Day." Under this designation Milian and other French authors have described an exanthem resulting from the biotropic action of various chemical substances. Under tropism is understood the specific affinity for certain living cell organisms as evidenced here by the active chemical substances. Milian makes the distinction between necrotropism, the lethal action, and biotropism, the irritative action. Biotropic action is seen if treatment is given with too small doses and also if in treatment of certain diseases with specifically acting chemical preparations, latent microorganisms become virulent again in the organism, so that exanthems, malaria, *etc.*, which have nothing to do with the initial disease but are excited by the medicament, make their appearance and, in general, are considered erroneously as toxic. It would also be a mistake to consider such reactions as anaphylactic or idiosyncratic, since they can be explained by biotropism.

Since the introduction of salvarsan in the general treatment of syphilis, skin phenomena have been observed to appear in a certain number of patients. Some last but a short time; others lead to serious conditions. The question has been disputed whether salvarsan treatment should be broken off on the appearance of such skin phenomena. K. Schreiner has always held that an overanxious attitude is not in place if the patient is a young person with a fresh infection in which it can be said almost with certainty that the disease can be cured only with salvarsan; but Milian's standpoint that the treatment must be continued in every case has seemed to him to go too far.

Recently there has been a sudden rise in the incidence of these exanthems. They agree with

those described by Milian as E9. They have occurred in men and women and after neo-salvarsan and salvarsan. The opinions of a number of authors on the origin of this exanthem show little agreement.

Prodromal symptoms—fever, sore throat, conjunctivitis, joint pains, vomiting—preceding the exanthem by 1 to 2 days, have been common. The eruption is morbilliform. It may disappear after a day or two. The picture may change if treatment is continued; the eruption may recur, in milder or in threatening form.

Eleven cases are recorded, appearing in the course of treatment with salvarsan preparations. Two cases also appeared after intramuscular injection of solganal B. In 9 cases the picture was similar in many respects to Milian's type E9. The incubation period was about 9 days from the first injection. The prodromal symptoms were often stormy; further treatment in no case led to a salvarsan dermatitis, but in 2 cases treatment was broken off because the exanthem showed no tendency to disappear. It was a remarkable fact that these cases were all seen in the course of a few months, whereas the condition had not been seen previously in the clinic for many years. Such "epidemics" have been noted in the literature. Their occurrence in this instance was preceded by an outbreak of measles in the district and several of the patients had been in contact with measles patients. This point seems significant in view of Milian's explanation.

Schreiner brings forward evidence in support of the view of an allergic origin for salvarsan exanthem of the type of E9. In 2 cases he shows the value of skin tests. This view is confirmed by clinical and animal experiments published by Frei, Mayer, Nathan and Munk, Sulzberger, Schoch and Stokes. Schreiner undertook transmission experiments from 5 patients to salvarsan-tolerant syphilitics. In the first case and in a case in which there had been a salvarsan dermatitis one month previously, the experiment did not succeed with blood serum. The cutaneous reaction also was negative in both cases. In another case the Prausnitz-Küstner experiment succeeded as regards transmission to 2 persons. In this case the skin test with solusalarsan gave an "immediate reaction." In 2 further cases an "immediate reaction" and successful passive transmission were obtained. In 2 of these, the latter was obtained with blood serum as well as with the contents of a vesicle; in the other, only with the contents of a vesicle. In the last named case, the patient had an urticaria, which flared up at each injection of salvarsan. Schreiner thinks this was a case of

polyvalent skin sensitivity; the cause of the urticaria was unknown.

Schreiner feels that Milian's denial of an allergic nature for "erythema of the ninth day" cannot be upheld.

The question whether salvarsan exanthem of the type of L9 can be distinguished from other skin phenomena occurring after salvarsan is next considered. He does not think that in every case this can be done, although in many cases the symptom complex will be easily differentiable clinically from allergic epidermal phenomena.

The final question considered is that of continuing or discontinuing salvarsan treatment after appearance of the flare-up phenomenon. It requires courage to continue treatment of a latent syphilis under this condition. To carry out the skin test in every case might give help in the decision. In several difficult cases Schreiner found it of value. Stokes and Schoch have developed a method of patch testing with arsphenamine which seems to be of value in determining in which cases of dermatitis an attempt at further employment of the drug is permitted. Much experience is required, and for the present the question is left open. One should be able to continue the treatment without risk, if the manifestations are of cutaneo-vascular character, but it is not always possible to exclude the possibility of an epidermal sensitivity existing together with the cutaneo-vascular sensitivity, that is, a true salvarsan dermatitis.

ERUPTIONS CAUSED BY DRUGS INGESTED (OR INJECTED) (DERMATITIS MEDICAMENTOSA)

There are many different types of hypersensitive skin reactions with varying clinical pictures dependent, to a great degree, on the part of the skin in which the hypersensitiveness is localized (epidermis, superficial cutis, deep cutis, vascular system, *etc.*). Certain of them are quite clinically obvious; the bluish, fairly deep-seated, sharply demarcated reaction from phenolphthalein, the succulent, edematous wheal of urticaria, the blistering, weeping, erythematous eczema or dermatitis venenata are so different in appearance that they are considered together only because of the conception of the underlying immunologic mechanism.

Some of the cardinal forms of dermatoses caused by sensitization following application of certain medicaments in common usage may be summarized as follows:

1. Truly eczematous eruptions with erythema, vesiculation, weeping, and scaling (quinine, procaine hydrochloride, ephedrine, mercurials, sometimes arsphenamines, *etc.*).

2. Urticarial eruptions (belladonna, atropine, the morphine group, phenolphthalein).

3. Sealy erythematous eruptions, purely erythematous or scarlatiniform, and morbilliform and dermatitis exfoliative-like conditions (arsenic, arsphenamine, belladonna, balsams, the heavy metals).

4. Erythema multiformelike eruptions (phenolphthalein, antipyrine, salicylates).

5. Erythema nodosumlike eruptions (iodides, bromides).

6. Acneiform, furunculoid, and erysipelaslike eruptions (bromides, iodides, chlorine, oils, tars, *etc.*).

7. Ulcerating and vegetating eruptions (bromides, iodides).

8. Purpuric eruptions (iodides, arsphenamines, particularly sulpharsphenamine, balsams).

9. Fixed and circumscribed, erythematous or bullous and polychromatic pigmented eruptions (phenolphthalein, antipyrine, and sometimes the arsphenamines).

Certain of the medicaments mentioned may be found intolerable either on internal or external application. We have previously reported a case of vesicular and weeping dermatitis caused by contact with a hair lotion containing quinine. More than a year later the patient suffered from erythroderma involving the entire skin and an acute weeping dermatitis eczematosa on the previously affected areas, caused this time by the hematogenic distribution of quinine contained in a "bromoquinine laxative" tablet, taken by mouth.

Of the various forms of dermatoses, the eczemas are the ones concerning which we have the greatest amount of information, because of the applicability of the patch test. The theory that in each type of reaction the antibodies have become fixed to a different part of the skin, to a different group and type of cells, and the consequent reaction of these cells alone to contact with the exciting agent, helps to explain the different types of hypersensitive skin reactions and the fact that these latter require different methods of testing, in order to discover the responsible substances.

In the superficial eczematous, vesicular, papular, erythematous reaction of eczema or dermatitis eczematosa, the epidermis and perhaps the topmost vascular layers of the cutis are the probable site of the first reaction. This fact renders the patch test alone capable of elucidating the etiologic factor. This test, which Jadassohn first used 38 years ago, has led to the discovering of the cause of innumerable otherwise obscure cases of eczema, and has also disclosed some of the most important and fundamental facts concerning allergy. In addition to this, Bloch's experiments with this method have yielded many basic discoveries concerning the general processes of sensitization.

In urticarial eruptions, in which the seat of the reactions is generally regarded as the capillary and precapillary blood vessels of the upper-

most cutis, patch tests do not usually cause urticarial reactions even in subjects with a very strong urticarial type of hypersensitiveness. Occasionally in such patients, a superficial scratch before the application of the test substance suffices to elicit the wheal and flare response.

In the other classes of drug eruptions previously mentioned, with the exception of the eczematous and urticarial forms, much less is known of the mechanisms of sensitization, the question of the site of sensitiveness, and the localization and the type of the shock tissue. This is particularly true in Group 9 which comprises the fixed circumscribed eruptions, a comparatively rare type. The drugs most frequently causing this type of eruptions are antipyrine and phenolphthalein, particularly the latter. The fixed phenolphthalein eruption offers a field of study to the American dermatologist, since, contrary to its relatively infrequent employment in Europe, phenolphthalein is in widespread use in America. Its presence not only in laxative preparations but also in mouth washes, and even as coloring matter in cake icings and beverages, makes it difficult to exclude ingestion of traces of the drug even in carefully examined patients.

Our experiments in fixed phenolphthalein eruptions showed that neither patch tests nor intradermal tests were of value in diagnosis or in proving existing hypersensitiveness to the drug. The existence of eczematous hypersensitiveness could not be demonstrated; no urticarial hypersensitiveness could be shown, and no late papular type of hypersensitiveness (tuberculin type of reaction) could be proved to exist. These results speak against the epidermis or the superficial layers of the cutis as being the seat of this form of hypersensitiveness, and point rather to the deeper tissues as the determinants of the localized reactions, perhaps to the nerves and the blood vessels. Our experiment with the transposition of superficial skin grafts from affected to nonaffected areas, showed that the hypersensitivity could not be transported with the epidermis or superficial cutis. This again speaks in favor of the deeper tissues being responsible for the localization of the hypersensitive areas. At present, the ingestion tests, with its disadvantageous waiting for the subsiding of the eruption, is the only one available in these cases of fixed eruptions.

Our experiences with phenolphthalein eruptions showed that the determination of the presence of certain drugs in the tissues and fluids of the body is of little value as indication of their causative rôle in the dermatosis. The finding of drugs in the urine and stools, even a long time after their ingestion, is no proof that the erup-

tions under consideration are due to the drugs found, since there is no available evidence which shows that patients with drug eruptions retain the responsible drug or excrete it in a different manner from normal persons or persons with other cutaneous diseases. Demonstration of a suspected drug in the urine and feces has the sole value in doubtful cases, of establishing the fact that it has been ingested when no other evidence of drug ingestion can be obtained. On the other hand, negative tests for phenolphthalein in the urine, feces, and tissues are not sufficiently conclusive to rule out the presence of small traces of the drug. These traces, so slight as to defy detection by even the finest chemical methods, are frequently found sufficient to cause severe and lasting results in hypersensitive subjects.

ERUPTIONS DUE TO EXTERNAL MEDICAMENTS AND OTHER IRRITANTS

The division of drug eruptions on the basis of internal or external contact is an artificial one, used merely for convenience. The sensitization brought about by an ingested drug may be followed by a reaction to the same drug reaching the skin either from within or from without; that brought about from an externally applied substance may, similarly, be followed by a reaction to the same substance arriving from without or from within. As we have mentioned earlier, certain patients are sensitized to one and the same substance without regard to manner of contact. Clinically, eczematous dermatoses resulting from the two different means of contact do not differ in their manifestations or methods of being tested. The patch test is applicable equally in cases due to contact from without (topical applications and industrial factors) and in cases due to contact from within (hematogenic distribution following internal medication). Provided the cutaneous response to the drug is eczematous and vesiculating, the pathologic processes are apparently identical.

The types of irritants liable to be met in external contact include almost all well defined chemical substances, such as mercury, resorcin, butesin, butesin picrate, picric acid, sulphur, chrysarobin, novocain, nupercaine, *etc.* There are many cases of eruptions in hypersensitive individuals due to applications of medicinal salves, lotions, proprietary remedies, *etc.*, and cases caused by skin contact during injection of arsenicals, *etc.*, but the overwhelming majority of the cases of eczematous dermatoses occur as industrial dermatoses. The list of occupations producing them is infinitely large as is also the list of the causative substances. This latter in-

cludes: Textiles, leather, parts of plants, artificial fertilizers; washing powders, bleaches; oils, shellacs, solvents; acids and alkalis; woods; flour bleaches; aromatic oils; alkaloids; soaps; shoe polishes and dyes; aniline dyes and photographic developers, paints; laboratory reagents; insecticides; cosmetics and toilet preparations (face powders, perfumes, tooth pastes) and inorganic salts.

Even in very low concentrations, all these substances can act as sensitizing agents and cause dermatitis based upon an allergic mechanism in susceptible individuals. Allergic sensitization may occur upon first contact with the offending agent or it may be delayed even for years. Why an apparent immunity should eventually break down and an onset of sensitization occur, is as yet practically unknown.

There are three different periods representing three separate types of phenomena or phases in sensitizations of eczematous type: (1) A period of refractoriness to sensitization, which may last days, weeks, months, or years, in which the patient is refractory to sensitization, in spite of intimate, often daily, contact with a substance which may later sensitize. (2) A period of incubation of sensitization, which is the time required for a sensitization to develop in a susceptible patient after he comes in contact with the sensitizing agent. The incubation of sensitization seems to be relatively constant for different substances, independent to some degree of both patient and excitant. The usual time in most sensitizations, whether to drugs, plant products, or foreign serums, is approximately from one to two weeks in both human beings and animals. 3. A period of development which may last minutes, hours, or days; this is the time elapsing between contact with the excitant in an already hypersensitized patient and the first clinical manifestation of reaction. The reaction time seems to be constant in a given patient and to a given excitant, and it is usually from 16 to 40 hours.

Contributory Factors in Sensitization.—Almost any factor causing irritation or lesions of the skin acts as an aid in the production of hypersensitivity. Antecedent ringworm infections can be the cause of subsequent dermatitis from external irritants in various ways: First, through interrupting the continuity of the skin and thereby permitting entry of the sensitizing substance; second, through reducing the natural resistance of the skin in a nonspecific manner; and, third, by setting in motion sensitization mechanisms in general which then have a strong tendency to become multiple or polyvalent. Thus, a ringworm infection, bringing in its

train sensitization to fungus products or trichophytin, may also produce hypersensitivity to other and chemically nonrelated substances which the worker may encounter in his occupation.

While fungus infections are a most important single factor contributing to sensitization of eczematous type, any other interruption of the epidermis due to trauma may lead to the same result. Burns, abrasions, cuts, scratches, *etc.*, are frequent forerunners of the sensitizing entry. It is, therefore, not a fortuitous happening that those occupations in which skin trauma is most frequent are often also those most susceptible to dermatitis of allergic nature. Occupations in which heat and moisture are more or less constantly present, naturally tend to produce breaks in the continuity of the skin and to make it permeable to sensitizing agents. This helps to explain the great number of eczemas among dishwashers, bakers, barbers, kitchen-workers, housewives, *etc.*, and is probably also one of the reasons why so many eczemas originate in the skin folds, which are constantly damp.

In addition to the foregoing factors, sensitization may be eventually brought about by the occurrence of certain nonallergic dermatoses caused by primary irritants, that is, by agents causing immediate inflammation without an intervening incubation of sensitization. Strong caustics, alkalies, and acids, escharotics and rubefacients of all kinds belong to this category. The group also includes skin conditions due to mechanical traumas and those from thermal insults as well as those from ultraviolet, radium, and roentgen rays. Many cleansing fluids, cleansing powders, and strong soaps and grease removers are primary irritants and can of themselves produce dermatitis and thereby possibly pave the way for sensitizations. It seems probable that many procedures employed by workers to cleanse their skin are either in themselves the causes of great numbers of dermatoses or render the skin more prone to sensitization by other substances.

Clinical Types of Eruption.—In the great majority of cases of eruptions from external medicaments and from irritants encountered in the industrial trades, the clinical manifestations, though varying greatly, are of truly eczematous type. All the long established characteristics of eczema are often present in the most typical forms: First, in the histologic sections (spongiosis and vesiculation). Second, in the clinical findings: Erythema, edema, papules, vesicles, and a later lichenification, infiltration, and scaling. Although the diagnosis of "eczema" of this type rests to a great degree on the very multi-

plicity of types of lesions present, and this polymorphism is a characteristic of the eruption, probably the most important sign is the histologic and clinical presence of vesicles. They are frequently present in the early stages of this type of dermatitis and they are absent in certain other types of dermatoses.

In an as yet unpublished series of cases of eczematous dermatitis following the use of ointments containing butesin picrate, we noted, in one case, an erythematous and weeping dermatitis with acute vesicle formation occupying the points of contact with the ointment and associated with diffuse edema of the forearms. The skin of the upper arms, not involved in the acute dermatitis, appeared almost normal with the exception of edema and implication of the follicles. Each follicular opening was transformed into a vesicle or succulent papule the size of a small pinhead. In a second similar case, also following the use of a 1 per cent butesin picrate ointment for a burn, it was noted that many of the vesicles occupied the mouths of follicles, and that there were scattered follicular pustules throughout the entire affected area; this was particularly noticeable on the dorsa of the proximal phalanges of the fingers, on which only the follicular orifices were involved, the remaining skin being normal. It is further noteworthy, in this series of cases, that the two chemicals, butesin and picric acid, caused different types of reaction. The patch test with butesin elicited a response which was mainly follicular (similar to many trichophyton and tuberculin patch test reactions), which was accompanied by marked edema and pruritus and very little erythema, and which lasted for an astonishing length of time—several weeks. The patch test with picric acid caused a diffuse, often severe erythema, little infiltration, and very numerous, minute, nonfollicular vesicles, which desquamated and healed more rapidly.

THE PATCH TEST

Hypersensitivity of the type encountered in the eczematous eruption is accepted as residing, probably, in the most superficial layers of the skin, perhaps in the epidermis alone. The incubation period of this type of reaction is usually 18 to 24 hours, or more. For these two reasons the usual scratch or intradermal skin tests as performed in hayfever and asthma, *etc.*, are obviously valueless. Hypersensitiveness can be demonstrated only by bringing the offending substance into contact with the skin surface and observing the result after the lapse of 24 or more hours.

A small piece of material, such as linen or

blotting paper, is soaked with the test substance; covered with an impermeable, slightly larger piece of material; and both held in place, either with an adhesive strip or liquid collodion. After 24 hours, the test is removed and the reaction of the site noted. For testing purposes, water, oil, and alcohol-soluble substances are dissolved in their suitable solvent; and insoluble and solid substances are simply moistened and applied. It is, of course, necessary that the concentrations employed remain below the borderline concentrations irritating normal skins, as the object of the test is to discover hypersensitivity. The use of only normally harmless concentrations will avoid serious mistakes. This is illustrated, for instance, in testing with soaps by means of the patch test. Almost any soap, if applied under the patch test for 24 hours, will cause an erythematous reaction on the skin of normal persons. Such a reaction, therefore, does not prove that a person being tested is hypersensitive to a particular soap. For testing, an emulsion of the soap must be made which is sufficiently dilute not to inflame normal skins.

The sites of tests should be observed at intervals during one to two weeks, as delayed reactions are sometimes encountered. The reaction appearing at the test site is a reproduction of an eczematous dermatitis, ranging from a simple erythema, through the stages of papules, vesicles, and bullae, to an actual necrosis, according to the degree of hypersensitivity. The patient's back, arms, or thighs are usually used for testing and as many as 20 or more substances can be applied at the same time.

Simple as the execution of these tests appears, it is valid only in the hands of experts. Patch tests are useful only in those dermatoses in which the clinical evidence points toward a more or less acute reaction to an eczematogenous substance. Such dermatoses cannot always be easily distinguished from eruptions which may be bafflingly similar, such as neurodermites, seborrheic eczemas, and especially, dermatophytides. The last are very frequent and, in many cases, cannot in the present state of our knowledge be distinguished from eczemas caused by drugs and other substances.

In the readings and evaluations of the reactions, it should be remembered that a positive patch test does not always indicate that the substance used in the test has caused the dermatitis under investigation, since an individual may have a hypersensitivity for a substance with which he has no opportunity for contact; nor, conversely, does a negative test necessarily exonerate the substance as a causative agent. Among other possibilities, the so-called "false positive"

may be due to employment of too high a concentration; or, to the fact that during the period of skin sensitivity to one causative substance, a polyvalent and nonspecific sensitivity often arises. In such a period the skin frequently reacts to many substances which may be in no causal relationship to the existing dermatosis, and whose removal may not cure it. Fortunately, this nonspecific sensitivity usually disappears after a certain time; the specific sensitivity persists for longer periods. The occurrence of "false negatives" may be attributed particularly to the fact that: First, the patch test cannot exactly duplicate the conditions obtaining in the production of the actual dermatitis—injuries, friction, maceration, heat, and cold; and second, regional and chronologic fluctuations in skin sensitivity occur. The test may then be applied either at a time when the patient's skin is in a nonhypersensitive phase, or, to an area of the skin which is not participating in the hypersensitivity. The existence of a nonhypersensitive phase succeeding an eczematous drug eruption is perhaps best illustrated in arsphenamine dermatitis. Kagelman found that skin of such patients did not react to tests during 9 to 14 weeks after the appearance of the dermatitis. If all other methods of approach fail, the test with the suspected substance should be applied to the previously affected site, after the dermatitis has healed.

The performance and evaluation of the patch test is thus obviously a procedure requiring both experience and judgment. Its principal use is in dermatitis venenata, in plant dermatitis, and in drug eruptions of eczematous nature and in the acute occupational dermatoses. Furthermore, in addition to its diagnostic value in the industrial cases, it has the possibility of great value in prophylaxis. Through application of the patch test, it would be possible to weed out from such industries as are forced to employ eczematogenous substances, those individuals who are prone to eczematous sensitizations. For example, individuals found on patch tests to be hypersensitive to fur dyes (paraphenylenediamine) are not suitable employees in the fur trades, nor are individuals who are revealed to have a tendency toward eczematous hypersensitivity in general. Patch tests should be carried out in all the industries requiring the use of actively sensitizing substances. In this way, the worker would be prevented from entering an occupation for which he is not fitted, and the industry would be saved the otherwise inevitable disablement of a certain, sometimes very large, proportion of its employees.

A second method of using the patch test for

prophylaxis is to discover and eliminate from industries and manufacturing processes strongly eczematogenous substances which are not absolutely essential adjuncts of the industry. In the event of certain substances being essential, but with a choice between two or more substances, the patch test by being applied to a group of individuals, possibly the workers themselves, can act as a guide for the selection of the substance least likely to sensitize.

By this method, many eczematogenous substances could be eliminated and many cases of dermatitis avoided. We know of instances in which the simple expedient of changing the brand of soap eliminated a series of cases of dermatitis occurring in a roundhouse. In a printing establishment, cases of dermatitis began to appear after the introduction of a new "reducing" fluid, whose eczematogenous properties could easily have been discovered and avoided. Certain brands of such commodities as cement, gasoline, turpentine, shoe polishes, dyes, *etc.*, are much more likely to sensitize than other brands fulfilling precisely the same requirements. The patch test permits of the choice and employment of the least deleterious substances.

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ABSTRACT OF DISCUSSION

FRANK C. KNOWLES (Philadelphia): Portions of the paper are extremely appealing, and to any of us who have a certain amount of industrial dermatology, these are most interesting in regard to external cause of eruptions from the use of irritants or drugs in certain trades. The patch test is of tremendous importance in making the diagnosis of the irritant causing an outbreak, especially in connection with industrial dermatology, in which many employees show a cutaneous eruption. In addition to the local manifestation of a drug or chemical from the skin point of view, we are all interested in some of the newer drugs in use today. There are curious manifestations on the mucous membranes of the mouth after the administration of certain drugs internally; curious discoloration of the gums is found in certain instances after injections of bismuth; and discoloration and rather dark appearance of mucous membranes after injections of gold salts. More particularly following phenolphthalein rashes, many of you have been interested in mucous membrane lesions found after administering this drug to those who are susceptible. The curious vesicular outbreak on the tongue, hard palate, and mucous membranes resembles markedly the rather vesicular type of erythema multiforme. With the advent of new drugs one has to be careful until their effect on the susceptible is ascertained. It means that from now on the same as in the past we must be constantly on our guard as to an idiosyncrasy toward a certain preparation taken internally, whether from the allergic or sensitivity point of view.

EDWARD F. CORSON (Philadelphia): Perborate mouth washes can be exonerated when it comes to cases of phenolphthalein outbreak. The number of external irritants is such a tremendous one that I have made a list

of most of the common ones and when some external cause is suspected, I go over with the patient item by item all things that seem to fit in the case, not giving it to him to read, recalling how some insurance doctors hand out their blank and ask "Have you ever had any of these diseases?" to which the answer is of course "No," but take it up seriatim with the individual and try to work out some connection with the case.

The dermatophytids have always been a bugbear to me because of the uncertainty if they were dermatophytids or a secondary factor coming in and simulating dermatophytid but really a dermatitis from some other source. There are many of those nowadays and with the frequency of established dermatophytosis somewhere on the body it is decidedly confusing.

The patch test for soaps also has presented its problem. I have never been sure of soap tests unless I was contrasting one soap with another, both of them similarly diluted, but just to take soap and dilute it and try out with a patch test has always aroused a certain doubt in my mind whether a normal response was being elicited or whether there really was some pathology present.

DR. SULZBERGER: One is continually reading and hearing that a certain dermatosis is considered to be caused by a certain drug because a relatively large quantity of that drug was demonstrated in the body tissues or fluids of the patient in question. The demonstration of increased amounts of a drug or element cannot be considered as a proof that drug or element caused the skin manifestations under consideration. It proves only that the patient has come in contact with the suspected drug but not that the drug is capable of causing the eruption, or that the drug has caused the eruption. Further tests, such as skin tests to determine the hypersensitivity of the skin to the drug found, or reproduction of the dermatitis in question by ingestion or other administration of the suspected substance, are necessary to establish its etiologic significance.

To illustrate this with a specific example: A drug eruption caused by iodine, bromine, phenolphthalein, or any other drug to illustrate this point could be selected, but here in Philadelphia where so much excellent work has been done on the subject by the schools of Dr. J. H. Stokes and the late Dr. Schamberg I will select arsphenamine and arsenical dermatitis as examples.

A patient who has received arsenic or arsphenamine in any form, and who has no signs of an arsenical dermatitis, will have just as much arsenic in the stool, urine, scales of the skin, and in his hair and nails as a patient who has received the same amount of arsenic and has an arsphenamine or arsenical dermatitis. If we were to deduce from the mere demonstration of large amounts of arsenic in the tissues or excreta that a skin condition in any patient receiving arsenic is due to the arsenic, we inevitably arrive at a false conclusion.

For example, a patient with a gumma or with a secondary syphilid receiving arsphenamine would necessarily have increased arsenic intake, and the quantitative tests for arsenic in urine, tissues, *etc.*, would be high. If we followed the false line of reasoning mentioned we should arrive at the obviously erroneous conclusion that the gumma or secondary syphilid was caused by the arsenic.

Particularly in the case of the element arsenic, the demonstration of increased quantities in the person being examined is of extremely little value in trying to find the cause of a given dermatitis. This is mainly because the arsenic intake, retention, and excretion depend upon many factors which cannot be observed and controlled.

This point was particularly stressed by R. L. Mayer in *Jadassohn's Handbuch*, Vol. IV, No. 2, page 76. Some observers consider a normal urine arsenic content to be twentyfold the amount of that which other investigators believe to be the norm.

Furthermore, different articles of food, such as fish, particularly some forms of shellfish, contain a relatively high quantity of arsenic, and persons eating fish will therefore retain and excrete relatively large quantities of the metal, regardless of whether they have a dermatitis or not. Persons living in cities, and particularly persons living in the vicinity of steel and iron smelting plants and foundries, will absorb large quantities of arsenic through the air which is contaminated by the exhaust fumes from the furnaces, so that their normal urine arsenic may be many hundredfold that of persons living in uncontaminated atmosphere.

The demonstration of a quantitative increase of a drug or the presence of a drug must generally be corroborated by the demonstration of a hypersensitivity or idiosyncrasy to this drug before one can attach any etiologic significance whatsoever to the findings.

This brings me to the second point which I should like to stress. The great majority of the drug eruptions which we see are caused by sensitizations. In the case of arsenical and arsphenamine eruptions, Mayer says that most observers consider all urticarial, morbilliform, eczematous, or scarlatiniform eruptions caused by arsenic or arsphenamine to be based upon sensitization phenomenon. The animal experiments of Frei, Mayer, and myself with neoarsphenamine are strong evidence in favor of this. The clinical course and morphologic characteristics of the eruption point in this direction, and the experiments with skin tests in human beings carried out by Kagelmann, Frei, and myself, as well as the interesting work performed by Drs. Stokes and Schoch are all evidence that certain types of arsphenamine dermatitis are due to eczematous sensitization.

The practical lesson to be drawn from this fact is that arsphenamine and other drugs must be tested not only for their toxicity as is done at present, but for their sensitizing power as well. It is quite possible that a certain batch of arsphenamine may have a low toxicity (that is, a high minimum lethal dose) and still be a strong sensitizer. Such a batch would probably be more dangerous to use than a more toxic one with less sensitizing power. For many years I have urged that since we are able to sensitize animals with arsphenamine, each batch manufactured should be tested, not only for toxicity but for sensitizing action. Those batches with low sensitizing power will cause less dermatitis, and perhaps less purpura cerebri, and other dangerous sequelæ.

In answer to the questions concerning the relationship of tobacco and pruritus, in many cases of pruritus caused by drugs there is a sensitivity of the skin which is not of sufficiently high degree to cause an apparent dermatitis, but which still results in the subjective phenomenon of itching when the drug arrives at the sensitized skin areas. We have been able to demonstrate this in the case of butesin and generalized pruritus caused by butesin ointment. Any drug which can cause an eczematous dermatitis can also cause pruritus without a dermatitis. As my experiments have shown that tobacco can cause an eczematous dermatitis and elicit positive patch tests in hypersensitive individuals, it seems clear to me that tobacco can also cause itching without clinical skin lesions. Itching in many skin eruptions is a sign of hypersensitivity; in other words, a subclinical dermatitis. Perhaps senile pruritus, diabetic

pruritus, icteric pruritus, etc., are sometimes on this same basis.

JOHN H. STOKES (Philadelphia): I did not intend to convey the impression that I, or my group, has ever had the feeling that one learns whether or not a patient's dermatitis is due to arsenic by the presence of arsenic in the urine.

With reference to the sensitization factor in arsenic dermatitis, I should warmly endorse what Dr. Sulzberger says. In a paper by Kulchar and myself, we tried to point out what we believe to be the complexity of the sensitization factors underlying an arsenical dermatitis. In 1922, Cathcart and I pointed out the possibility of a bacterial sensitizing agent. We did not say bacterial at the time with the definiteness that we do now, but we implied that there was an infection factor in the background. In this paper which Kulchar and I have just written we have expressed the importance of localized dermatophytosis as a sensitizing factor in arsphenamine dermatitis. The effect of the infection is to broaden the base of the sensitization complex. In addition the local infection has perhaps injured the skin, which through the production of an erythema in accordance with the logical concept of Aver brings more reagent per unit time to the infection site to start an allergic explosion. These and other factors come into the situation and arsphenamine simply piles on top of them and topples the whole structure over in the form of a dermatitic reaction.

MAX LEVINE (Philadelphia): As to the effects on the central nervous system of several of the drugs mentioned by Drs. Wise and Sulzberger, especially in the effects of bromides: It is not sufficiently well known that bromides are capable of causing delirium. In an experience with more than two dozen cases of bromide delirium, the frequency of bromoderma was not as great as one might have expected. None of the patients had a severe rash; 3 or 4 had rashes of moderate severity; about a half dozen had mild rashes. Considering that the skin and the central nervous system develop from the same layer of the embryo, one might have expected that in cases of bromide delirium there would more frequently be bromoderma. How would Drs. Wise and Sulzberger explain this?

DONALD M. PILLSBURY (Philadelphia): If I understood the presenters correctly, they stated that in fixed phenolphthalein eruptions positive patch tests were not obtained. I should like to ask whether these tests were extended to the site of the healed lesion, and if any specific instances of a drug sensitization in which the drug has either broken down or combined with some other chemical in the body and produced sensitization is known?

JOSEPH V. KLAUDER (Philadelphia): How many times did they obtain a specific patch test?

DR. SULZBERGER (in closing): Replying to Dr. Stokes, I do not mean to imply that either he or the late Dr. Schamberg or any of their school considered the demonstration of arsenic in skin or liquids a proof that the eruption under consideration was due to that element. Dr. Stokes and I agree concerning the question of arsphenamine sensitization. As he has stated, the fundamental problem is—why does the patient with arsphenamine dermatitis become sensitive while hundreds of others who receive the same drug in the same way do not? In most cases this question of the birth of hypersensitivity is absolutely obscure. As Dr. Stokes has

stated, we are beginning to get a little light upon this subject in some specific instances. We know that a sensitization caused by one substance producing an eczematous dermatitis may often spread to embrace in its scope other substances, either of the same group or apparently completely unrelated to the original sensitizer. Dr. Wise and I have discussed this at length in the case of industrial dermatoses (*Occupational Dermatoses, American Medicine, New Series, Vol. 28, No. 6, pages 4-7, 16-22, Special Section, June, 1933*), and have referred to the work of many previous observers.

A dermatophytid, the presence of which is a proof and demonstration of the existence of a hypersensitivity to fungus products, is frequently followed by an eczematous hypersensitivity to some external substance with which the worker comes in contact. Or *vice versa*, the workman becomes sensitized to some external occupational substance and then his ringworm which has lain quiescent for years becomes active and may continue to exacerbate or persist for long periods of time after the original sensitizer has been removed from the patient's environment. Thus, as Dr. Stokes has stated, the eczematous sensitization to the products of fungi may carry with it or inaugurate a sensitization of the same type to arsphenamine, and the patient who has had a dermatophytid will then get an arsphenamine dermatitis.

Concerning the question of bromoderma and bromide delirium, I have never seen a case of the latter. In view of the fact of the relative rarity both of bromoderma and the delirium, if Dr. Levine has seen 6 cases of bromoderma in 50 cases of bromide delirium, I should regard this as a relatively high percentage and consider that this speaks for a sensitization to bromine both on the part of the skin and the embryologically closely related ectodermal brain tissue.

Answering Dr. Pillsbury, we tested healed areas of phenolphthalein eruptions, but we have not tested a sufficient number of cases, nor did we wait long enough after the healing of the lesions to be sure that our negative results might not be due to the skin having gone into a desensitization phase following the eruption. In other words, we may have been testing the tissues during a refractory period.

Concerning the second part of Dr. Pillsbury's question, there is proof that certain drugs entering the system cause reactions of hypersensitivity due to sensitization to their split products and not to the full drug. Urotropin is such an example; iodoform, another. Urotropin eruptions are generally due to hypersensitivity to formaldehyde, and Bloch has shown that iodoform eruptions are due to the substituted methyl group and not to iodine. Furthermore, it has often been considered, since the time of Bruck and Wolf-Eissner, that simple chemicals or elements sensitize through first combining with some complex organic molecules in the body.

In response to Dr. Klauder's question, our percentage in finding the cause of eczematous dermatitis of the hands is just as low as his, but we have learned now which cases it will pay to test by the patch test. That is, we select cases in which we think there is a chance of finding the causative agent, so that we now test a relatively small number of hand eczemas, but in the tested cases obtain a relatively high percentage of etiologic diagnoses.

Stauffer, who worked on this problem extensively, increased his percentage of positive findings astonish-

ingly by waiting for a few months after the healing of the dermatitis and then testing the actually sensitized sites; that is, applying the patch test to the areas

previously occupied by the eczematous dermatitis. This is an excellent method, but one which is difficult to carry out in practice.

CLINICAL TREATMENT OF CERTAIN BONE DISEASES*†

Caused by Hyperfunction of the Parathyroid Glands

GEORGE WAGONER, M.D., PHILADELPHIA

Before considering the treatment of bone lesions associated with hyperfunction of the parathyroid glands, it is necessary to discuss briefly the physiology, pathology, and chemistry of the condition.

The function of the parathyroid glands is to regulate the calcium-phosphorus metabolism of the body.

The normal functional rate of the glands may be increased or decreased. In each case there results a definite clinical picture composed of a symptom complex, a changed calcium and phosphorus metabolism, and characteristic structural tissue changes. In this paper only the effects of increased or hyperfunction of the parathyroid glands will be considered.

Increased function of the parathyroids extends over a broad range. The causes of overactivity are several: (1) Simple hyperplasia of the glands. (2) Increased number of glands resulting in an increase of total parathyroid secretion. (3) Adenoma of one or more of the glands. (In cases of tumor invasion, the most marked degree of hyperfunction, structural change, and symptomatology occur. Cases of patients suffering from this last cause have been most widely recognized, studied, and described.)

Hyperfunction of the parathyroids results in an inability of the body to utilize the ingested calcium; it is neither stored in the parenchymal reservoirs nor deposited in the bones. Not only is the ingested calcium neither stored nor deposited but the calcium already in storage is drawn upon and gradually eliminated. In consequence, more calcium is excreted than is ingested—a negative balance exists. Normally the major portion of calcium excretion is in the feces; in parathyroid hyperfunction most of the calcium output takes place through the kidneys. (As a result of this reversal, damage of the intestinal mucosa and renal substance takes place.) In course of elimination calcium is transported in the blood serum in larger quantities than the normal level of 10 mg./100 c.c.

total calcium. (Total calcium includes the ionized, the salt, and the colloidal protein compound. The ratio of these forms changes with alternations in parathyroid activity and such changes are of diagnostic importance.)

A fundamental relationship exists between the metabolism of calcium and phosphorus. It is not surprising, therefore, to find phosphorus metabolism deranged in parathyroid hyperfunction; the blood serum level is low, a negative balance exists and the route of elimination, as with calcium, is reversed.

The interdependence of calcium and phosphorus is especially marked in the process of calcium deposition in bone. The enzyme phosphatase assists in such deposition and also in resorption. In parathyroid hyperfunction the amount of phosphatase in the blood serum is greater than normal.

Adequate chemical examination will give definite finding in cases presenting increased activity of the parathyroid glands. Such examinations are not simple. It is futile to rely upon single or occasional serum calcium and phosphorus determinations. It is essential to run calcium and phosphorus balances at regular intervals in order to follow the progress of the disease and to control the use of therapeutic agents. These balances should be taken daily for a period of 4 to 5 days and repeated every fourth or sixth week.

Of more importance than the variations from the normal of the serum calcium and phosphorus levels is the ratio existing between these elements. If it is assumed that 10 mg./100 c. c. is the normal serum level of calcium, and 4, the normal of phosphorus, an arbitrary index of this ratio can be obtained by dividing the calcium figure by that for phosphorus ($10/4 = 2.5$). The normal ratio index would be 2.5. Any increase of this index would indicate an abnormal ratio similar to that which exists between serum calcium and phosphorus in cases of parathyroid hyperfunction.

From the above data it is possible to deduce the tissue alterations resulting from parathyroid hyperfunction and hence outline the symptomatology of the disease.

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† From the Laboratory of Orthopedic Research, University of Pennsylvania, Philadelphia.

Alterations in the gastro-intestinal tract result in nausea, vomiting, and constipation. Anemia, emaciation, and retardation of growth ensue.

The urinary output is increased to the point of polyuria and nocturia. Urinary and renal calculi and concretions may form. Renal damage progresses and nitrogen retention results.

The muscles weaken, fatigue readily, become painful and their latent period is prolonged.

The bones, especially the long bones, undergo progressive decalcification, become rarefied and porous, with thinning of the cortex. As the condition progresses, distortion, granularity, and fracture occur. In youth these changes are more pronounced in the metaphyseal zone; in adults, in the diaphyseal.

The bone marrow is damaged and the normal cells are replaced by fibrous tissue. The fibrous invasion is progressive and results in expansion of the limiting cortical shell with the production of tumorlike areas. Masses of the fibrous tissue may undergo central neurosis and lysis and form cysts. If the replacement fibrous tissue be invaded by giant cells, a giant cell tumor will result. Occasionally hemorrhage will take place into the fibrotic areas, hemosiderin crystals will be deposited, and a typical "brown tumor" of von Recklinghausen result.

Bone and joint pains associated with inability to stand or bear weight are early and persistent symptoms resulting from these changes in bony structure.

In the early stages of parathyroid hyperfunction the bone changes may closely resemble and be mistaken for rickets, osteitis deformans, osteomalacia or true blastomas. In the advanced stages the skeletal lesion is that of generalized osteitis fibrosa.

TREATMENT

From the foregoing it is apparent that in parathyroid hyperfunction there is an increase in the volume of glandular secretion, of parathormone. To be effective, treatment must either reduce the amount of parathormone secreted or utilize the excess.

Three types of treatment are available: (1) Diet; (2) surgery; (3) roentgen irradiation. These types of treatment may be used singly or in combination. The ideal treatment must be determined for each individual case.

DIET

The calcium and phosphorus contents of any diet used must be accurately known and regulated in accordance with the degree of imbalance existing in the individual case. The usual ratio of calcium to phosphorus in the therapeutic diet

should be 1:1.5 or 1:2 depending upon the severity of the condition. The total number of grams of calcium and phosphorus fed the patient in the daily diet should be regulated according to the degree of negative balance existing. Calcium gluconate and di-sodium-acid-phosphate may be used to supplement the diet.

In addition to calcium and phosphorus, it is necessary that adequate amounts of vitamin D be given. This is best supplied in the form of viosterol (25OD). The dose for the average case would be approximately 20 minims daily; in severe cases 60 minims daily have been found necessary.

Warning must be given that excessive amounts of viosterol are harmful in that they stimulate bone resorption.

SURGERY

The removal of an overactive parathyroid gives temporary relief. The remaining glands, however, tend to undergo hyperplasia resulting in an exacerbation of the disease. Removal of a second gland must then be resorted to with temporary improvement again followed by remission. Surgery alone, therefore, cannot offer permanent cure for generalized parathyroid hyperfunction. Surgery combined with proper diet over a considerable period of time has given excellent results in severe cases (White and Bromer of the Philadelphia Orthopedic Hospital.)

ROENTGEN IRRADIATION

From experimental and clinical evidence it is believed that roentgen-ray irradiation of the parathyroids offers the best method for reducing hyperfunction. Application is simple—small fractional doses are given at 3-day intervals. The total dosage employed is usually about 80 per cent of an erythema dose. As it is impossible to screen the thyroid and expose the parathyroids simultaneously the thyroid is affected by the parathyroid irradiation. Instead of being disadvantageous, the simultaneous irradiation of the thyroid has useful and practical consequences. Irradiation of the thyroid reduces its functional rate and in consequence the basal metabolic rate falls. The effect of irradiation of the thyroid gland as shown by the falling metabolic rate should be used as an index of the limits of parathyroid irradiation. During the course of parathyroid exposure, therefore, basal metabolic readings are made at frequent intervals and the dosage carefully checked.

In one case the basal metabolic rate was depressed as the result of parathyroid-thyroid irradiation from +4 to -24 over a period of 15 days during which 5 exposures were given.

No apparent ill effects were noted and the basal metabolic rate rose to an approximately normal level within 6 months.

Irradiation may be, and frequently should be, combined with proper diet.

CONCLUSION

The systemic damage resulting from hyperfunction of the parathyroid glands can be checked, alleviated, and in part repaired by proper therapeutic measures. These measures comprise (1) roentgen irradiation of the parathyroids; (2) a diet containing adequate amounts of calcium and phosphorus in proper ratio, supplemented by vitamin D; and (3) the surgical removal of one or more parathyroid glands. These agencies may be used singly or in combination.

It is imperative that before instituting remedial measures, accurate and thorough chemical studies of the patient's calcium and phosphorus metabolisms should be made. These determinations should be repeated at frequent intervals throughout treatment.

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ABSTRACT OF DISCUSSION

A. BRUCE GILL (Philadelphia): The patient whose condition Dr. Wagoner illustrated in the lantern slides presents a very remarkable example of the symptomatology of this condition and also the value of certain forms of treatment. When I first saw her she was age 32, and had been confined to her bed for 4 years. The parathyroid glands on one side had been extirpated. She had been in 2 hospitals during the preceding years for pathologic fractures which fortunately had all united.

At the time I saw her she had a large giant celled tumor in the upper portion of the left femur. On the left tibia was a painful tumor, tender, red, warm to the touch, and which was growing. She had manifestations of generalized osteofibrosis in almost all the bones of the body. There was marked muscular weakness. She could move herself in bed only by grasping with her hands 2 rings which had been placed on a frame over the bed.

Extirpation of the hyperthyroid glands on the other side of the neck was done, followed by the administration of phosphorus and other drugs mentioned by Dr. Wagoner. She has shown remarkable improvement and is now able to walk about and to come to the hospital for observation. The bones have shown an increasing amount of lime deposit. The muscular weakness has largely disappeared. The size of the tumors has become less. This patient illustrates the improvement to be obtained by removal of the parathyroid glands together with proper diet and medication.

TUBERCULOUS AND NONTUBERCULOUS PULMONARY INFECTIONS*†

In Infancy and Childhood

F. MAURICE McPHEDRAN, M.D., PHILADELPHIA

During infancy, tuberculosis presents a peak of mortality which reaches its height in the second half of the first year of life, and thereafter declines sharply. The tuberculous lesions that occur in the age period from five to puberty, during which, in the white race at least, the majority are benign, have been fully described elsewhere, and will not be discussed here. What concerns us first is to examine briefly the means by which the severe tuberculous infections of infancy occur, the conditions under which progressive disease develops, and what measures are best adapted to bring about arrest and cure of tuberculosis in infants.

At no other age period is there so direct a relation between the intensity of exposure and progressive disease. At no other age is more importance to be attached to the significance of a positive tuberculin reaction and to the prevention of exposure to contagion through a person having tubercle bacilli in the sputum. The very

fact that the whole course of tuberculosis in an infant may be seen within 12 months speaks eloquently for the prevention of infection within this period of life. Those who are in attendance on infants should be free of respiratory symptoms, especially from the frequent short cough or constant slight clearing of the throat that only too often is for months the sole evidence of a chronic pulmonary tuberculosis. In case of any doubt as to the possibility of tuberculosis in one of those in the immediate environment of an infant, recourse should be had to the roentgenogram and other methods of examination suitable to rule out such a hazard.

Next in importance to the prevention of exposure to contagion is the early detection of infection and disease. Here the tuberculin reaction together with the roentgenogram and accurate clinical observation form an indispensable triad. In the prevention and treatment of tuberculosis in infancy each has an essential part to perform.

Despite the greater use made of the tuberculin test in recent years it is still applied too

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† From The Henry Phipps Institute of The University of Pennsylvania.

infrequently and its significance is too little understood. It is a sensitive indicator of the existence of infection and, in infancy, the strength of the dose necessary to call forth a positive reaction is sometimes an index of the severity of the infection. The tuberculin test is made by injecting first 0.01 mg. of Old Tuberculin intracutaneously. If the reaction is negative, 1.0 mg. is given in the same way. If the reaction to either quantity is positive, it indicates infection, which in an infant is sufficient warrant to comb the attendants for a possible source of contagion and to institute serial roentgen-ray examinations of the child at intervals of 1 to 3 months. A person who may be a source of contagion should immediately be prevented from further endangering the child by reinfection. As case histories show, with the cessation of reinfection and appropriate treatment even extensive tuberculous lesions may be arrested and cured.

Serial roentgenograms are used to discover whether infection has produced a lesion large enough to be perceived. If none is found at the first examination, reexaminations are made, at first monthly and then, if no lesion has appeared, quarterly, depending also on the nature of the exposure and the subsequent well-being of the child. Even in an infant, infection may not produce a lesion extensive enough to be recordable roentgenographically. As long as no lesion can be discovered by this means either in the lungs or lymph nodes the probability of a serious or progressive infection is small. It is rare that miliary tuberculosis or tuberculous meningitis or osteomyelitis develops in a child in whom a large uncalcified node or an extensive pulmonary infiltration has not previously been demonstrable. Likewise in my experience evidence is lacking that tuberculous infection of which the sole evidence is a positive tuberculin reaction is sufficient to cause fever or ill health in an infant.

On the other hand, infants may present, roentgenographically, enormous lesions of the lung and lymph nodes with no reflection of these in the temperature curve even when the temperature is taken at two hourly intervals night and day. These babies may even be normally active and playful, although to the careful observer the range of a baby's physical initiative is a more sensitive index of material tuberculous infection and its ebb and flow than is the temperature chart. With such accurate clinical observation ranks only the roentgenogram, the differential and total white count and the sedimentation test as criteria of the progression or regression of tuberculous lesions. Physical signs,

cough, fever, all the classical signs of activity, may be wanting with progressive disease. Experienced appraisal known as clinical judgment comes close to some of our best objective criteria, those of the roentgenologic and clinical laboratories.

The lesions that may be discovered roentgenographically may for convenience be considered separately as those of the lungs and those of the lymph nodes. The division is artificial, since the lesions of the lymph nodes result inevitably from the primary infection of the lung. It is especially so in infancy, since at no other age period is the lesion of the lymph node so likely to return upon the lung, whether by way of the blood stream, as miliary tuberculosis, or by way of the air passages through rupture of a lymph node into a bronchus, or, much less often, by direct extension of a lymph-node lesion into the surrounding tissue of the hilum and into the adjacent parenchyma. A pulmonary lesion constitutes a twofold threat, that of direct extension by contiguity or by way of the bronchi, and that of overwhelming by continued drainage the damaged associated nodes, leading to a fatal miliary lesion or to meningitis. Despite this close interrelation, there is a practical value in considering separately those lesions that are localized chiefly in the lung, and those that are situated chiefly in the lymph nodes, particularly as regards their management.

If a recordable pulmonary lesion is unilateral, or is much less conspicuous on one side than on the other, it offers a point of direct attack by artificial pneumothorax, a procedure often of startling effectiveness in the tuberculosis of infants. Although collapse therapy presents considerable technical difficulties in infancy, at no other age period does it give such brilliant results in the resolution and scarring of extensive and progressive consolidations. The infiltrations most suitable for this treatment are those that are of a somewhat unequal heavy density with mottled borders, or those that are progressive, or show increasing central excavation. A group less easy to designate for collapse are homogeneous consolidations that involve solely one lobe, or if they occupy part of a lobe, shade off by gradual equal diminution of density into the surrounding lung. These, particularly if the associated lymph nodes are demonstrably enlarged, require careful supervision by all suitable means, but in particular by serial roentgenograms, sedimentation tests and white counts, and by careful clinical observation if they are not collapsed. The risk of pneumothorax in capable hands is slight compared to that of progressive tuberculous invasion.

Another type of tuberculous infiltration appears as a grouped mottling, the tuberculous bronchopneumonia. As long as the spots are dense, large, and tend to confluence they represent a dangerous lesion; conversely, small, light, scattered spots suggest a less immediate threat. Nevertheless, excavation may occur even if the component light spots group into consolidation, and in such cases collapse is the safer course of treatment.

The treatment of the large uncalcified pulmonary lymph nodes often discovered in infancy presents a most varied and difficult problem. Here we may assume there is no demonstrable associated pulmonary lesion, the primary nodule being too small or too awkwardly situated, behind diaphragm or rib, to be recorded. We need not consider here calcified nodes which, by themselves, are rather an index of former heavy infection than a present menace.

The enlarged uncalcified pulmonary lymph node is not serious in itself but in its potentiality as a source of dissemination of tubercle bacilli to meninges, bones, *etc.* Consequently the aim of supervision is to prevent further burden on the damaged nodes. Not only exogenous reinfections, but nontuberculous, respiratory infections must be regarded as possible sources of overload. As was shown some years ago, measles, pertussis, and pneumonia rarely bring about the development of tuberculous lesions, although the chronic bronchopneumonia that often follows these diseases occurring in early life is commonly mistaken for tuberculosis. The chief effect on preëxistent tuberculous lesions of acute pulmonary respiratory disease is probably a quasi-mechanical one, whereby the lymph drainage increased by the acute infection sweeps into the circulation tubercle bacilli from the already extensively damaged lymph node. Thus hopeless meningitis and crippling osteomyelitis only too often result not from a general miliary dissemination but from an apparently brief spilling out of bacilli from nodes that are temporarily overloaded. It is thus that measles, pertussis, and pneumonia chiefly influence the morbidity and mortality of tuberculosis.

The meningitis resulting from superimposition of one of these diseases on an already damaged lymphatic filter is thus an incidental overflow from a lesion that would otherwise usually run a benign course. As regards their effect on the lung, a spread of the tuberculous pulmonary infiltration may be observed following these acute infectious processes. It is noteworthy, however, that such spreads rarely coalesce into consolidation and still more rarely excavate. Eventual

resolution of the increased spread and, indeed, of the whole lesion is the rule.

As already indicated, it is not only the acute infections that cause hematogenous metastasis, for continued exposure of an infant to a source of contagion is much more serious than the incidence of an acute bronchopneumonia. Continued intimate contact with a person with positive sputum usually results in a widespread bilateral pulmonary infiltration that will prove fatal in itself. To this sort of damage the meningitis of miliary dissemination is almost a necessary sequence, and in such a case to describe the cause of death as meningitis is to misplace the emphasis. On the other hand, the meningitis that results from an isolated spilling over of infection from overtaxed lymph nodes is an accident resulting from the chance dissemination of bacilli into a site favorable to their development. Proper preventive care of infants with demonstrably enlarged nodes will reduce the number of such disasters.

In the diagnosis of pulmonary tuberculosis in infancy the most valuable factors are those already referred to, the tuberculin test, the roentgenogram, the white count, the sedimentation test, and clinical observation. Physical signs, symptoms, and the examination for tubercle bacilli of the fasting gastric contents are also of great value and each at times may prove decisive in the direction of treatment.

Of the symptoms for which an infant is brought to the physician, cough and fever are the most important. The cough is short and repeated day and night. The temperature may be 101° F. or 103° F. with moderate infiltration. It may, however, be normal. Of physical signs, impairment of resonance is the most common. Localized râles, especially if the child is more lackadaisical than prostrated by illness, are of significance.

The value of examination of the fasting gastric contents for tubercle bacilli is too little appreciated. A procedure available to all, it is not only a decisive sign but one that occurs moderately early in the course of the disease. The presence of bacilli will usually be conclusive evidence for the collapse of unilateral lesions in infants.

The nontuberculous pulmonary infiltrations of infancy and childhood may be divided for practical consideration into lobar pneumonia, acute bronchopneumonia and chronic or relapsing bronchopneumonia with or without bronchiectasis. Only the outstanding diagnostic criteria of these lesions and their differentiation from tuberculosis are discussed here.

Lobar pneumonia is distinguished by its acute and sudden onset, high continued fever, and by dyspnea, cough, and prostration more marked than is usual with tuberculous lesions of like extent. Impairment and changes in the breath and voice sounds are more striking. Examination of the sputum is of the greatest importance. The tuberculin reaction has a greater value in differentiation during infancy and childhood than at any other age period. Examination of any associated pleural fluid may be decisive. Roentgenographically, lobar pneumonia presents a density that is usually more homogeneous than similar tuberculous lesions; the transition into the adjacent lung tissue is more gradual and less mottled, and there is no demonstrable enlargement of the associated lymph nodes. The characteristic short course and crisis of uncomplicated pneumonia are not seen with tuberculous lesions, but when temperature falls by lysis and clearing is delayed, the sputum, the tuberculin test, and the anatomic distribution and appearance as shown by roentgenograms are usually decisive.

Acute nontuberculous bronchopneumonia in infancy and childhood is to be distinguished from tuberculous bronchopneumonia by many of the constitutional indications that distinguish lobar pneumonia—greater prostration, higher temperature, more rapid onset, more severe cough and dyspnea in proportion to the extent and severity of the lesion. With a tuberculous lesion the tuberculin reaction will rarely be negative to 1.0 mg. O. T. unless the damage is extensive, and positive sputum or positive gastric contents from the fasting stomach will be readily found. Physical signs, in particular generalized rhonchi with localized medium râles, are the rule with acute bronchopneumonias, and on the other hand are rarely striking or persistent over tuberculous lesions unless these are severe and associated with positive sputum. Roentgenographically, mottling restricted to the base and densest close to the cardiac contour, whence it spreads out along the diaphragm, is characteristic of acute nontuberculous bronchopneumonia. If such a lesion is bilateral tuberculosis is rarely the cause. The associated lymph nodes are not involved.

Except in infancy tuberculous lesions rarely involve the lung substance adjacent to the diaphragm and even in infancy they are rarely as dense upon the diaphragmatic contour as upon the parietal pleura. Should a tuberculous bronchopneumonia become more or less confluent, its maximum density, if it occurs in the lower half of the lung, is often in the axilla in an infant, the right middle lobe, or the corresponding

area of the left lower lobe being a characteristic site. Dr. A. D. Waltz considers these areas or the upper part of the lower lobe the most common site of the most severe damage in infants dying of tuberculosis. In an older child, the maximum density of tuberculous basal lesions is usually posterior in the middle third or in the upper part of the lower third of the lung field just mesial to the mid-thoracic line, that is to say, about the seventh to ninth posterior ribs. Here it appears to lie close to the cardiac contour. Actually, as rotated and oblique exposures show, it is close to the posterior chest wall, and excavation characteristically occurs only some 1 to 2 cm. from the parietal pleura. Enlargement of the associated lymph nodes, characteristic of tuberculosis, is usually demonstrable. A fuller description of the roentgenographic differential diagnosis is given elsewhere.

The chronic or relapsing bronchopneumonias of infancy and childhood are among the most interesting, intractable, and complex lesions that affect the lungs. Within this grouping is bronchiectasis, which stands at one extreme of the scale of intensity as the most persistent and disabling of these chronic nontuberculous infectious lesions. Bronchiectasis has its origin typically in a severe bronchopneumonia, often in association with measles. The essential lesion is usually localized, weakening the wall of the smaller bronchi about which the bronchopneumonic patches are grouped, with permanent damage to the elastic elements, and some dilatation caused by ineffective healing by scar tissue as shown by Opie, Blake, Small, and Rivers.

From serial studies of the living it would appear that if the initial damage to the bronchial wall is moderately severe it is increased by successive attacks of bronchopneumonia with slowly increasing dilatation of the bronchi. In some children in whom slight bronchiectasis is produced by the initial pneumonia, the succeeding attacks of bronchopneumonia may cause no further bronchial dilatation. In these cases the severity and frequency of the attacks of bronchopneumonia often decrease as age advances and may cease or become rare about puberty. As evidence of the early lesion a few dense strands and slightly dilated bronchi remain in the cardiophrenic angle on the right and behind the heart on the left.

Chronic or relapsing bronchopneumonia without demonstrable bronchiectasis is by far the most common chronic pulmonary infiltration of infancy or childhood. The initial lesion is usually a pneumonia in infancy or early childhood. There may be slow recovery, the cough persisting for weeks after the illness, then ceasing in

the spring or summer only to recur the next winter in another attack with marked prostration and high fever. The child is subject to frequent attacks of severe cough with or without high fever, is usually more or less prostrated for a few days, recovering fairly rapidly from the more severe manifestations, but suffering for weeks with a persistent cough that is worse at night. One attack may succeed another with no interval of real well-being, or the child may be fairly well between exacerbations except for a persistent cough, or the child may appear entirely well between a succession of respiratory illnesses. Asthmatic symptoms are not uncommon as the temperature falls and the severe cough subsides. Between attacks the child is vigorous, alert, interested and does not show the slightly lackadaisical attitude and slowed or, as it were, restrained movements of a child with an extensive tuberculous lesion. The tuberculin reaction may or may not be positive, this being chiefly determined by the age of the child and the opportunities for casual infection with the tubercle bacillus. Physical signs are limitation of motion, intensified or harsh breathing, sometimes amounting to a bronchial quality, and showering râles that, even in the intervals between exacerbations, come out at the end of very deep inspiration after cough. The râles are most common and persistent close to the spine posteriorly and near the cardiac border anteriorly. Indeed, râles limited to these areas are almost diagnostic of a chronic nontuberculous infiltration. There may, however, be an extensive lesion, as shown by roentgenograms, with trivial or no definite physical signs if the patient is examined in the intervals between exacerbations, especially during dry summer months. At such times, harsh breathing, as pointed out by Dr. M. I. Rubin, is the most dependable physical sign.

The roentgenographic appearances of these lesions have been fully described by F. M. McPhedran and their anatomic characters have been briefly referred to in relation to bronchiectasis. If there is no bronchial dilatation, scattered strands and spots occur, densest close to the cardiac contour on the right and upon and behind the cardiac shadow on the left. Between exacerbations the lesion in these areas may be slight and detectable only in excellent, fully stereoscopic, synchronized films. During the acute attack the lesions increase in density and spread out as scattered or confluent spots along the diaphragmatic contour to the axilla.

There may or may not be associated lesions of

the accessory nasal sinuses. These are not infrequently demonstrable by the roentgen ray; sinus disease clinically manifest is less common. In our cases the pulmonary lesion appears to be the primary one in most instances. As has been pointed out, more than one child in a family often suffers from these chronic pulmonary lesions. Furthermore, a like lesion or sinusitis in a parent often appears to be the source of these infections occurring in the children.

SUMMARY

1. Tuberculous infection more often leads to serious disease and death during infancy, especially during the first year than at any other age period.
2. Infants should be protected from exposure to infection by an attendant suffering from pulmonary tuberculosis. Any attendant whose health is suspected should have complete examination of the sputum and of the chest, including roentgenograms.
3. The tuberculin reaction is more significant in infancy than at any other age period.
4. The roentgenogram, clinical observation, and the differential white count are of first importance in the differential diagnosis and supervision of tuberculosis in infancy. The temperature chart is of value but less helpful.
5. Artificial pneumothorax gives excellent results in the treatment of unilateral tuberculosis of infancy.
6. The nontuberculous pulmonary lesions are to be distinguished from tuberculosis by their onset, course, and anatomic distribution.
7. The chronic or relapsing nontuberculous bronchopneumonias have characteristics of onset and course that distinguish them no less than their sites of predilection and the direction of their spread during relapses.

The Henry Phipps Institute of the University of Pennsylvania.

ABSTRACT OF DISCUSSION

ROYAL H. McCUTCHEON (South Mountain, Pa.): Some things which have been said by Drs. Hetherington and McPhedran should be stressed, particularly the latency of these lesions, in children with progressive lesions, growing worse month after month, with all physical examinations negative and no excuse to bring them to the doctor. The point I would stress is the importance of annual examinations of those who are well. The use of the tuberculin test, along with the roentgenogram, is the only way to make a positive diagnosis of these cases.

TUBERCULOUS LESIONS*†

In Children of School Age

H. W. HETHERINGTON, M.D., PHILADELPHIA

The subject, "Tuberculous Lesions in Children of School Age," offers a wide field for discussion. The tubercle bacillus is able to produce disease in almost every organ and tissue of the body. It is in the lungs, however, that the great majority of primary or childhood infections occur, and it is here that the majority of lesions resulting from exogenous reinfection are found. Elementary and high school children, age 5 to 16, constitute an age group in which both adult and childhood types of disease appear; and if colored children are included, examples of the severe forms of tuberculous bronchopneumonia and consolidations, which usually affect infants, may be found among them.

There is an adult type of pulmonary tuberculosis that, in the white race, pursues within limits a fairly definite course. It begins at or near the apex of the lung, spreads slowly downward, causing fibrosis and cavity formation with sputum containing tubercle bacilli. The lymph nodes at the root of the lung are usually uninvolved in this tuberculous process.

This type of lesion may progress for months or years, finally causing symptoms and physical signs and becoming the typical case of clinical pulmonary tuberculosis. Cough and expectoration, fever, loss of weight, and fatigue appear, or hemoptysis, pleurisy, and tuberculous laryngitis may call attention to the disease. Physical signs of apical infiltration, including râles, are found. The later clinical stages need no description.

It is noteworthy that the long period before symptoms appear will permit the discovery of the disease in its latent stage. Roentgen-ray examinations made in the high schools of Philadelphia, from 1927 to 1931, indicate that apical infiltrations occur in about 2 per cent of adolescent girls and 1 per cent of adolescent boys. Progression of the latent disease may cease, with or without treatment, and certainly many of these lesions do not progress into clinical tuberculosis. Nevertheless by clinical and roentgen-ray examinations at intervals progressive lesions in their latent or early clinical stage may be selected for treatment.

The type of tuberculosis described above is not uncommon in children of high school age. Put-

nam, who studied the death rates from tuberculosis in boys and girls, age 10 to 14, concluded that the higher mortality in girls was associated with physiologic changes occurring at puberty. It seems probable that the appearance of this dangerous type of pulmonary disease in adolescent children as well as the difference in incidence in the sexes depends at least in part upon a lowered resistance to the tubercle bacillus produced by puberty.

Tuberculous lesions found in the lungs and tracheobronchial lymph nodes of white children between age 5 and 12 are usually benign and roentgen-ray examination is necessary to demonstrate their presence, extent, and character. The lesion resulting from a primary infection with tubercle bacilli is described as occurring anywhere in the lung, and secondarily involving the lymph nodes at the root of the lung or about the trachea. These lesions are at first caseous and later become calcified. Uncalcified tuberculous lymph nodes must be sufficiently enlarged to encroach upon the lung field before they can be demonstrated in roentgen-ray films. This is because the caseous nodes do not differ in density from the blood vessels at the pulmonary hilum, upon the shadows of which the shadows of the smaller nodes are superimposed. Uncalcified nodes sufficiently large to be demonstrated roentgenologically are not frequent in white children older than age 5.

The caseous or calcified pulmonary nodule with its associated lymph node lesion is the commonest tuberculous lesion in children age 5 to 12. Calcification of tracheobronchial lymph nodes has been shown by Opie and McPhedran to indicate that heavy exposure to tuberculosis has occurred. Some investigators (Rathbun) have suggested that children with calcified lesions of the tracheobronchial lymph nodes are more likely to develop apical disease in adolescence; others have suggested that a partial resistance is conferred by the lesion. In a reexamination, after an interval of more than 3 years, of 112 adolescent children in whom calcified foci in the nodes had been demonstrated, it was found that no instance of apical tuberculosis had appeared; two cases requiring sanatorium treatment were found among 75 tuberculin-positive children who were used as controls. This result might be thought to suggest immunity conferred by the calcified lesion. Twenty of 76 cases of apical

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† From The Henry Phipps Institute of the University of Pennsylvania.

tuberculosis, found in the school survey already mentioned had, in addition, calcification in the tracheobronchial lymph nodes. This is a much higher incidence of lymph node lesions than was found in the whole group and suggests that the association is not accidental.

Calcification of the tracheobronchial lymph nodes indicates severe exposure to tuberculosis during childhood which may be continued beyond the age of puberty, resulting in the development of a lesion of adult type. Again a second exposure to tuberculosis from a new source of contagion is more likely with these children because tuberculosis is characteristically a household disease. This increased risk of exposure to tuberculosis in adolescence in the family groups, in which such children live, is probably responsible for the somewhat larger percentage of children with these calcifications that later develop tuberculosis of the adult type.

A second form of tuberculosis affecting the lungs of children in the elementary school age group is the diffuse childhood-type infiltration. This lesion probably results from an infection that is not controlled at the caseous nodule stage. In the roentgenogram it produces spots, spots and strands, or strands, either alone or with calcified spots, depending upon its age and stability. Like the pulmonary nodule it is often accompanied by lymph node disease. In white children the end result is usually a wholly strandlike infiltration, probably without more significance than a calcified pulmonary nodule. Rarely in the group age, 5 to 12, is the lesion progressive, spots becoming confluent and consolidation and cavity formation resulting. Progression is more apt to occur in younger children, in Negroes, and if the pulmonary lesion is associated with demonstrable uncalcified lymph nodes.

Except in the rare case of progressive disease clinical methods play no part in demonstrating the presence or absence of tuberculous lesions in the lungs of white children, age 5 to 12. The evolution of these lesions into strandlike or calcified foci proceeds without disturbing the general health. Delicate or underweight children and those with frequent respiratory infections should not be regarded as tuberculous. The former are usually victims of faulty hygienic habits and the latter suffer from diseased tonsils and adenoids or other focal infection in the respiratory tract.

The labile temperature of childhood should not be the basis for a diagnosis of tuberculosis. In the ninth edition of *Diagnostic Standards*, published by the National Tuberculosis Association, the following is written: "It should be kept in mind that a child's temperature is more un-

stable and is about one degree higher than an adult's. Therefore, a child's mouth temperature may be within normal limits if it occasionally goes to 100° F." It cannot be urged too strongly that temperatures between 99 and 100° F. are frequent in children who do not react to tuberculin.

The diffuse childhood type tuberculous infiltration of the lung that progresses into clinical disease should be distinguished from chronic non-tuberculous pulmonary lesions. The latter are almost always basal, usually bilateral, and are often accompanied by numerous medium and coarse moist râles. A history of pneumonia, of frequent colds with long continued cough, and the presence of adenoids or infected accessory sinuses is common, while with advanced lesions, large quantities of sputum may be expectorated. In children well enough to be at school, bilateral basal tuberculous lesions are rare. A history of contact with open tuberculosis, a reaction to tuberculin, the presence of associated tuberculous lesions, and the site and roentgenologic appearance of the lesion, are important considerations in determining that the doubtful lesion is tuberculous.

Tuberculous consolidations occur in infants and preschool children and in Negroes. We have seen an occasional instance of tuberculous consolidation of the lung in white children, age 5 to 12. The consolidation may be the result of coalescence of smaller caseous areas but in some instances it probably occurs uniformly in the whole section of lung tissue. Tuberculous consolidations may be divided into two types, benign and progressive. The benign cause slight or no symptoms and physical signs and, in serial roentgen-ray films, can be seen to clear over a period of months, leaving only a few strands in the lung. They occur suddenly, are homogeneous, and reach the pleura at the anterior chest wall.

Progressive consolidations increase in size or excavate, usually leading to bronchopneumonia in other areas of lung. Symptoms and physical signs of pulmonary tuberculosis are present. If the disease is controlled the lesion clears, leaving calcified spots and strands.

Differentiation of benign from progressive consolidation is based upon the severity of the symptoms and physical signs and continued observation of the lesion. The presence of associated uncalcified lymph nodes or diffuse childhood type infiltration that is not strandlike indicates that the consolidation is likely to be progressive unless adequate treatment is taken.

Miliary tuberculosis is also uncommon in white children of elementary school age. The roentgen-ray appearance of this condition is a uni-

formly distributed soft mottling throughout the lungs. The prognosis is very bad. There is cough, dyspnea, loss of weight, and fever, scattered râles are heard over the lungs. The tuberculin reaction, especially in the later stages of the disease, may be negative. This lesion is due to the hematogenous dissemination of tubercle bacilli from a previously established tuberculous focus.

This short description of tuberculous lesions in children of school age follows closely Dr. McPhedran's classification based upon the actual

roentgen-ray appearance and clinical course of lesions. It should be remembered that Negro children are more susceptible to tuberculosis and the severer forms of tuberculosis, usually confined to infancy among children of the white race, are not uncommon among them. In the white race, tuberculous lesions between infancy and puberty are usually benign and the discovery and treatment of adolescent children with apical tuberculosis constitute the major problem.

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CARBOHYDRATE IN DIABETES*†

Newer Conceptions of Its Use

FRANCIS D. W. LUKENS, M.D., PHILADELPHIA

Today more carbohydrate is used in the diabetic diet than ever before. This has come about in various ways and is now the rule in most clinics. It is by no means a new idea. In 1903, von Noorden employed the "oat meal cure" which was essentially a high carbohydrate, low calorie diet. Other more or less empirical carbohydrate cures have appeared. At present we have some knowledge of the food required for the body's metabolism, and by the aid of insulin this can be applied to the diabetic patient. One of the first effects of insulin was the gradual increase in the carbohydrate of the diet. This has been described by Joslin. With this there has been a tendency to adjust the fat to normal proportions. In 1925, Sansum began giving high carbohydrate diets with large doses of insulin, as much as 200 units daily. The immediate response was favorable. He has recently reviewed his results with this treatment over a period of 7 years. At present he has lowered the carbohydrate and total calories of his diets, and insulin is reduced to an average of 43 units daily. At almost the same time, Geyelin in New York, and Rabinowitch in Montreal, began using such diets. The former emphasized the need for continued accurate measurement and control of the calorie intake; the latter stressed a very low fat content in the diet, with very high carbohydrate. In both of these points Rabinowitch is more extreme than others, but his results seem satisfactory. Similar observations have been made in Europe and the results have agreed essentially with those in this country. No attempt need be made here to review the now extensive literature

on this subject as this is given in Sansum's last article.

One must not overlook the valuable work of Newburgh. He has shown us how much fat can be tolerated with a relatively low carbohydrate diet, and how well such diets are borne by certain individuals. Though these high fat diets tend to avoid the use of insulin they do not seem to most physicians to be as satisfactory as a more normal type of diet. It must never be forgotten that the diabetic diet is prescribed to suit an individual patient.

To review these points, Table I shows some of the milestones in the development of the modern diabetic diet. The normal diet varies with the degree of work done, but this is representative. The ratio of carbohydrate to fat is here 4:1, and it is desirable to have it at least 2:1. A pre-insulin diet is cited merely for comparison. Its value lay in undernutrition, as taught by Allen, and in not exceeding the ketogenic:antiketogenic ratio. In 1927, there was progress toward a normal type of diet. The insulin used with this averaged 13 units daily. At the same time, Sansum's first diets are shown. As much as 200 units of insulin were used with these. This was a rather abrupt attempt to reach a normal diet and to attain a normal body metabolism with the use of insulin. The 1931 figures of Joslin and of Sansum are interesting. Joslin gradually raised the carbohydrate and lowered the fat. The calories are kept low but adequate for useful life. Sansum has reduced his carbohydrate and calories until both men are using almost the same diet. Sansum admits that his patients tended to be overweight. In short, after 7 years, these men have reached almost an identical type of diet, one by a gradual

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† From the George S. Cox Medical Research Institute, University of Pennsylvania.

increase, the other by a rise and fall in the carbohydrate.

TABLE I.—*Development of Diabetic Diet*

Diets	Protein	Fat	Carbo- hydrate	Calories
"Average Normal"				
(Joslin)	100	100	400	2900
1917 (Joslin)	60	90	43	1239
1927 (Joslin)	60	113	96	1665
1926 (Sansum)	79	99	206	2031
1931 (Joslin)	73	92	140	1680
1931 (Sansum)	66	82	184	1738
1933 (U. of P. Hospital)	65	80	100	1380

The last line of Table I shows the average 1933 diet of the diabetic clinic at the University of Pennsylvania Hospital (average of 30 consecutive cases). The results of this diet in the clinic, up to 1929, have been reported by Richardson. This is somewhat different from the present diets of Joslin and of Sansum, and it is interesting to ask why this is so. In this diet the protein is constant, as one expects. The carbohydrate is surprisingly constant with very few deviations of more than plus or minus 10 grams. These averages are, therefore, significant. In the case of the fat, however, the average is a composite of high and of low fat diets, and, therefore, means nothing. This criticism means that there has been an adjustment of fat to meet individual needs. The relatively low carbohydrate is not our ideal. It is the result of the present economic situation in a dispensary. Many patients can not afford insulin and the funds for this are inadequate. A few cannot even get the food for a prescribed basal diet.

For purposes of demonstration, let us consider a hypothetical diet of protein, 68; fat, 90; carbohydrate, 160, and review briefly its characteristics, advantages, and disadvantages. This diet would be a fair average of that used by Joslin, Sansum, and others. Such a diet can well include bread and potatoes and it is apparent that the old prescription to omit starchy foods is no longer correct. These foods are to be used with proper weighing and measuring.

The main characteristics of this diet are shown in Table II. It is still strictly measured. The free choice of diet is to be condemned. It approaches the normal, balanced diet. This is

TABLE II.—*Characteristics of a Higher Carbohydrate Diet.*

- 1. It is a strictly measured diet.
- 2. It approaches the normal balanced diet.
- 3. The caloric value is low.
- 4. The fat content is low.
- 5. It has developed since the discovery of insulin and is closely related to the use of insulin.

particularly true because it has a carbohydrate: fat ratio of 2: 1, upon which emphasis has been placed. The calories and the fat are low.

The question is not settled as to how fat and total diet influence glucose tolerance. Newburgh has supplied evidence that carbohydrate tolerance may be independent of these dietary factors. The prevailing opinion, however, is certainly that whenever the total diet is in excess, irrespective of any particular food, the power of the body to assimilate carbohydrate is diminished. Some have claimed that overfeeding, *per se*, is not detrimental to diabetic tolerance but that overfeeding with fat is. There is at least some evidence that the good effects of such a diet depend on the utilization of a proper amount of carbohydrate, whether this is brought about by a reduction of the fat, of the calories, or by the use of insulin. The relationship of this diet to insulin will be referred to later.

In Table III are summarized the advantages of such a diet. It contains nothing new, and yet the vast majority of writing emphasizes several of the points included, so that the presentation of such a comprehensive review is justified. The normal diet is supposedly a good goal until we know more about diabetes, and it is more palatable and acceptable to the patients and hence more easily kept. The less expensive foods are the carbohydrates and their inclusion becomes an economic asset. The general well-being of the patients is hard to define but is quite definite in their minds and in the experience of the physicians who use such diets. One must remember that adequate physical strength and

TABLE III.—*Advantages of a Higher Carbohydrate Diet.*

- 1. It approaches the normal diet.
- 2. It is more palatable and, therefore, more easily followed.
- 3. It permits more economical type of food.
- 4. A "general well-being" of patients is reported by all using it.
- 5. It improves the efficiency of insulin.
- 6. It perhaps keeps one better informed of the patient's tolerance.
- 7. The vitamin and mineral content are adequate.
- 8. It reduces obesity without acidosis.
- 9. It promotes maintenance of a normal blood cholesterol.
- 10. The low fat content is suitable for cases with gall-bladder disease.
- 11. This diet lends itself to the adjustments needed for fever, infection, peptic ulcer, *etc.*

social usefulness are the right of the diabetic. A suitable adjustment of the carbohydrate improves the efficiency of the insulin. With the use of this diet there has been a revival of interest in the important work done by Allan in 1924. He showed, in the depancreatized animal, that the

amount of glucose handled by one unit of insulin was not a constant thing. It varies widely, but by the proper adjustment of insulin and carbohydrate it may be as efficient as 1:7; that is, one unit may handle as much as 7 grams of glucose. It is obvious that if a patient is taking insulin an efficient ratio should be sought. This can not be done from Allan's ratios because of the unknown amount of endogenous insulin secreted by the patient. A good personal adjustment of the diet permits more carbohydrate to be taken. If the patient is being kept sugar free on as much carbohydrate as he can take, we are probably more closely informed of his tolerance. The vitamin and mineral contents of such a diet are adequate. Naturally, the proper amount of green vegetables is not to be omitted because of this change. Among the minerals, calcium is of particular importance in certain cases of diabetes. Joslin has had several patients with rarefaction of the bones that have been cured by the addition of calcium to the diet. Its use in the juvenile diabetic is obvious.

Obesity may be reduced without the danger of acidosis, and there is less tendency to acidosis in the presence of infection. In considering this it is apparent that the fat consumed is greater than the fat administered in the diet. This type of diet seems to promote the maintenance of a normal blood cholesterol. Preliminary studies show that this may reduce the incidence of arteriosclerosis. The final answer can be learned only in the future. From the gastrointestinal standpoint the low fat content is appropriate for cases with gallbladder disease. Finally, this diet lends itself to the changes needed for fever, infection, peptic ulcer, dental disturbances, etc.

The disadvantages of such a diet are few (Table IV). It must not lead to relaxation in weighing the diet. This, like most of the dis-

TABLE IV.—*Disadvantages of a Higher Carbohydrate Diet.*

1. It must not lead to relaxation in weighing the diet.
2. There is inaccuracy in measuring those diets with a very low fat content.
3. It involves the use of more insulin.
4. Its low caloric value may be inadequate in malnutrition or for children.
5. Hyperglycemia may not be as well controlled.
6. Its influence on the course of the disease has not been finally determined.

advantages, is not a true disadvantage but a precaution. There is inaccuracy in measuring those diets with a very low fat content. This refers particularly to diets such as Rabinowitch uses, in which the fat is 50 grams or less. Fat occurring irregularly in meat and as it is used

in cooking is one of the chief sources of error in estimating the caloric intake. The need for insulin is the one practical disadvantage in such a diet. Though it is an important economic consideration it is not a medical disadvantage. The accepted indications for the use of insulin are that any diabetic who can not keep the urine free from sugar and the sugar in the blood normal and himself in good health with the diet allowed should take insulin. The present diets indicate a higher standard of health for the diabetic than when insulin was first used.

Some might say that the low caloric value is inadequate in malnutrition or for juvenile diabetics. The obvious thing is to add fat. If the carbohydrate is ample this is easy to do. In a symposium on diabetes recently held in Germany, Falta concluded his discussion of low fat diets by asking why such a good food as fat should be omitted. Some have claimed that the hyperglycemia is not so well controlled. This is not, properly speaking, a disadvantage, for the control of hyperglycemia is a fundamental requirement of treatment of diabetes. A high carbohydrate diet, when successful in this, provides a more pleasant life, but one that can never be free from proper supervision. Although it sounds academic, we can not forget that the influence of this diet on the cause or degree of the disease has not been determined.

A word may be said of the physiology of carbohydrate feeding. In the normal man or animal this causes enough increased output of insulin to accomplish its utilization or storage. In the diabetic patient there is no conclusive evidence that carbohydrate increases the amount of insulin. Newburgh has called attention to the need for distinguishing between the tolerance of the diabetic and the pharmacology of insulin; that is to say, the variable glucose equivalent of insulin. His studies on diabetic patients are perhaps not conclusive because of their complex reactions; but as long as we can conceivably explain the good effects of glucose feeding by increased efficiency of insulin, we can make no claims for an increased amount of insulin. In other words, we have improved our treatment, but we cannot yet say that we have improved the fundamental pathology of the disease.

The essential features of the present type of diabetic diet, with special reference to its higher carbohydrate content, have been reviewed. With reasonable adaptation to the needs of the individual patient, such a diet is most beneficial to the social usefulness of the diabetic.

DUTIES OF THE OTOLARYNGOLOGIST TO THE GENERAL PRACTITIONER*

MATTHEW S. ERSNER, M.D., PHILADELPHIA

My message deals with the duty which the otolaryngologist owes to the general practitioner and through him to the public. This subject is one to which I have devoted much thought and one which seems to me to be of increasing importance. The past decade, so far as our profession is concerned, has been marked with a hysteria on the part of the general practitioner to become specialists. This condition has been particularly prevalent in the larger cities reaching an acuteness which threatened to relegate the general practitioner to a rôle similar to that of the "Vanishing American."

The specialist occupies an essential place in the practice of medicine, a place which, unfortunately, is greatly misunderstood by the laity. The specialist, if he is to be one in actuality, must possess such qualifications as tend, automatically as it were, to set him aside from the general mass as an individual whose superiority in his special field is unquestioned. He should represent a completed picture of natural aptitude and of special skill obtained by dint of proper training and long application. He dare not be "half-baked," or the quotation of H. G. Hummel, in the *New Jersey State Medical Journal*, "Good intentions have already filled too many graves and maimed too many lives," may become particularly apt.

The growing tendency toward specialization may be ascribed to the existence of two conditions: First, the period of economic prosperity which prevailed a few years ago; and second, to the failure on the part of many practitioners to keep abreast of the scientific progress of the profession. Many men, either unable or unwilling to cope with the problem of assimilating the vast amount of detailed data resulting from the achievements of modern medicine, drifted into the field of specialization.

These two conditions, primarily responsible for the abnormal increase in specialization, have to a great extent been destroyed. The first, by the economic crisis from which we are beginning to emerge; the second, by the fact that the "self-styled specialist," was soon found out by both the profession and the laity and labeled "quack," with the result that he was forced either to return to general practice or to remain a charlatan.

It may well be said, therefore, that the present period marks the renaissance of the general practitioner, the awakening of both the public

and the profession to the undesirability of the quasi-specialist and to the importance of the general practitioner. In this era of depression, the general practitioner must be somewhat of a general specialist. By this is not meant that he is compelled, for example, to do blood counts or blood chemistry tests, but he should know the interpretations of such tests and be prepared to do all the simple things in medicine as well as its allied specialties.

It is our duty as specialists in serving the profession and the public to do everything within our power to make the general practitioner as fit as possible to meet the situation described.

Because of the present economic stress, many patients demand that their family physician treat and carry out the simple procedures in otolaryngology. Many of the general practitioners are not prepared to do this. In view of the present renaissance, so to speak, of the general practitioner, it is our duty as otolaryngologists to offer our services to them, so that they may once again occupy the position to which they are entitled.

Our problem divides itself into two aspects, namely, dealing with the young intern who is about to embark into the active practice of medicine, and dealing with the "dyed-in-the-wool" general practitioner.

In the State of Pennsylvania it is compulsory for a medical graduate to serve an internship for at least one year before he is permitted to engage in active practice. During this year, he gains enough experience and sufficient contact to give him the equivalent of at least five years in general practice. In retrospect, there are many faults in the manner in which interns are trained. Most interns have the desire to "commit surgery" and in the otolaryngologic service, the tonsillectomy is their pacifier. The poor tonsil becomes the victim. At the end of each service the interns generally compare notes, and take account of the number of tonsillectomies they have performed but do not consider their faulty surgical technic caused by inexperience. This method of preparing the intern for active practice is fallacious. The intern should serve part of the time in the ear, nose, and throat dispensary. He should be taught, with more accuracy than during his student days, the manner in which to handle the head mirror, the nasal speculum, the otoscope, the normal structures of the oral, aural, and nasal chambers. This should be taught to him not in the form of cramming but by actual application. The intern should not

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serve as a clerk. We should take him along through the hospital on consultations, pointing out to him the pathologic structures as he is making the notations on the chart. By following such a procedure, we would stimulate his powers of observation and cause him to think more. The instruction afforded the student in the medical school results in his brain being crammed with theory and facts. These often remain unused and become erased from the memory centers because the teachings have not been applied practically. It is up to us to thaw them out, as it were. Because of the eagerness of the young intern to "commit surgery," he is permitted to perform quite a number of ward tonsillectomies. From a practical as well as a theoretical point of view, this is faulty. It is of much more value to the intern for us to explain the whys and wherefores of this procedure rather than allow him actually to demonstrate the technical performance. In this way, we remove the thought that tonsillectomies are a racket. To use the vernacular, because they have "slaughtered" many throats, the interns become imbued with the idea that they can successfully remove tonsils with the result that when they do go into practice they often become "tonsil snatchers." This by all means should be discouraged. The interns should be taught the simple things in otolaryngology, such as the treatment of an acute suppurative otitis media, mild sinusitis, laryngitis, and especially they should be impressed with the fact that focal complications such as gastro-intestinal disturbances, nephritis, *etc.*, occur more often than they suspect. It is an established fact that otolaryngology occupies a strategic position from a focal standpoint. The knowledge that we impart to them should be along the lines of simple treatment rather than impressing them with the facts of operative or technical importance. The result of such method would be that at the time the intern engaged in practice, he would be better prepared to do the everyday routine treatment in otolaryngology. Occasionally we meet a conscientious and sincere intern who is endowed with some special talent and whose leanings are towards otolaryn-

gology. In such an instance, it is our duty to encourage him and show him the true light of the speciality, either in the form of a preceptorship or by so guiding him through the proper channels that he may reach his goal in a laudable manner.

Now for the "dyed-in-the-wool" practitioner. At the present time there are many requests from practitioners who wish to be placed temporarily in active clinics so that they may learn the simple diagnostic points and the orthodox procedures of everyday otolaryngology. Reference has been made to the effect the economic depression has had on his work and the simple knowledge concerning specialties necessitated thereby.

We might suggest that the medical societies in their respective localities have frequent seminars instructing the general practitioner in the simple treatments in otolaryngology.

Practical demonstrations should be held in various hospital centers and therapeutic measures should be demonstrated.

The high spots and danger points should be so emphasized that the general practitioner will be able to recognize if the patient's condition gets beyond his experience. The patient should remain the central feature of the problem and if we should ignore this duty, woe be to the profession.

If the general practitioners were prepared to treat the simple conditions in the specialist's field, there would be no question as to the disposition of ward patients who are discharged from the hospital and who require postoperative dressings, sinus tamponing, or nasal cleansing. Many a mastoid wound has been mutilated by inexperience.

In conclusion, if the general practitioners were called together at various seminars and taught the modern technic of simple postoperative procedures, it would relieve the hospitals and clinics of unnecessary expense and burden, and indirectly create a further means of income for the family physician.

1915 Spruce Street.

GALLBLADDER DISEASE*†

Medical Versus Surgical Treatment

T. GRIER MILLER, M.D., PHILADELPHIA

Gallbladder disease is the most common organic cause of indigestion. It has been diag-

nosed in 16.3 per cent of all the patients admitted to the Gastro-intestinal Section of the Medical Clinic of the University of Pennsylvania Hospital. Other lesions, such as duodenal ulcer, cancer of the stomach, gastric ulcer, and

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

† From the Gastro-intestinal Section of the Medical Clinic, University of Pennsylvania Hospital.

appendicitis, in that order, have occupied secondary positions.

The diagnosis of gallbladder disease is made more frequently and with greater accuracy today than it was formerly, chiefly because of the development of cholecystography and of a keener appreciation of the significance of duodenal drainage observations. Hitzrot, as the result of a recent study of the records of 250 of our suspected cases of gallbladder disease, found that the actual lesions could be correlated with the results of the various diagnostic procedures in the following order of frequency: (1) History and physical examination, (2) cholecystography, (3) gastro-intestinal roentgenology, (4) duodenal drainage, (5) tests for bilirubinemia and (6) fractional gastric analysis. It is true undoubtedly that a careful history most often suggests, and is consistent with, the ultimate diagnosis, but on the basis of accurate differentiation in the obscure cases the Graham test and duodenal drainage now deserve equal consideration. Many cases with a vague and meaningless history of indigestion can be proved by these tests to have gallbladder disease. Though by no means infallible, especially if negative, yet should the roentgen study show the shadows of stones together with impaired or absent gallbladder function or should the drainage material be repeatedly abnormal in its concentration and contain true cholesterin and calcium bilirubinate crystals, no matter what the history, one is given a sense of security in the diagnosis of gallstone disease that places these procedures at least on a par with attacks of typical biliary colic.

Similarly, the other diagnostic measures referred to, especially gastro-intestinal roentgenology when it reveals duodenal adhesions in close relationship with the gallbladder, and the tests for bilirubinemia when they show latent jaundice, are distinct factors in the more frequent recognition of gallbladder pathology.

These references to the relative frequency of cholecystic disease and to our improved diagnostic equipment are made to indicate the importance of the subject and to stress the obligation which rests upon us, as clinicians, to adjust the management of these cases to the present-day facilities for recognizing and understanding them. The time has passed when the treatment is medical if the patient has only the vague digestive symptoms of suspected gallbladder disease, or surgical if the patient has had an attack of biliary colic.

What then are the modern criteria on which a medical or a surgical program for the treatment of a case of gallbladder disease is to depend? This question resolves itself primarily

into a consideration of the indications for operative interference, since otherwise the management must be medical.

Before attempting to answer this question it is essential to recognize that many patients have symptoms, physical signs, or laboratory results suggestive of gallbladder pathology without actually having the disease. This group includes patients with chronic gastritis, gastric or duodenal ulcer, liver or pancreas disease, renal calculi or pyelitis, mucous colitis, an irritable colon or chronic constipation, and migraine. Unfortunately, in many of these even cholecystography and sometimes duodenal drainage as well as other special tests may be misleading. Hitzrot found in his series 10 with false positive Graham tests, 8 of them being explainable on the basis of disease in closely associated organs: liver disease, duodenal ulcer, cancer of the pancreas, and pyloric stenosis. Eusterman has called attention to falsely positive cholecystographic results in cases with peptic ulcer and in asthenic individuals who have hypotension, achlorhydria, and a lowered basal metabolism. Crain and Walsh have showed experimentally that irritation of the duodenum, such as occurs in duodenitis or in duodenal ulcer, interferes with the normal evacuation of the gallbladder. Lahey and Jordan have called attention to patients with spastic colon who present a gallbladder history and give a faint or even absent cholecystographic shadow. Duodenal drainage perhaps less often is misleading if it reveals strictly positive findings on repeated examinations, but even so one should insist on corroborative evidence before accepting the diagnosis as final.

It is impossible at this time to go into the differential diagnosis of the various clinical conditions that simulate gallbladder disease, but I should like to caution against the assumption (1) that gastric mucus and achlorhydria, even in the absence of primary anemia and carcinoma of the stomach, are always secondary to gallbladder disease: they may result from chronic gastritis; (2) that painful jaundice always means a common duct stone: it may be due to carcinoma of the pancreas or gumma of the liver; (3) that cholesterin crystals in the duodenal contents always come from biliary tract stones; they may occasionally, perhaps when the bile salts are low, form spontaneously in bile outside the body; (4) that pus in such material always comes from the gallbladder: it may originate in the nose or throat; or (5) that a faint or even absent cholecystographic shadow always justifies a diagnosis of gallbladder disease: it may be due to failure of absorption, liver disease, an irritated duodenum, or a spastic

colon. Consequently, in those cases in which the history does not include typical attacks of biliary colic or in which the roentgenograms are not positive for stone, an exhaustive differential study, with all the other diagnostic possibilities in mind, is clearly indicated. Such investigation will eliminate many of the cases now commonly diagnosed chronic cholecystitis and for which treatment, either medical or surgical, often leads to failure.

I shall limit myself then, in the following somewhat dogmatic presentation of my viewpoint regarding the indications for medical or surgical treatment, to true cases of acute or chronic cholecystitis with or without stones.

In regard to the acute cases, little difference of opinion exists between internists and surgeons. The treatment depends largely upon the severity and progress of the inflammatory lesion. If the symptoms are mild, and no previous gallbladder disease has been recognized, as commonly occurs in patients with typhoid fever, it is safest to avoid operative interference. If, however, the systemic reaction is marked, with considerable elevation of the fever curve, an increasing pulse rate, chills and sweats, and if localized pain, tenderness, and rigidity are marked, whether a mass be palpable or not and whether jaundice be present or not, surgery must be resorted to eventually. Under the circumstances of such a virulent infection, cystic duct obstruction leading to empyema, peritonitis, and gangrene may develop. Even so, however, unless the situation obviously constitutes an emergency, most surgeons prefer to wait for 24 to 36 hours, and even longer if by that time the progress of the case is not unfavorable. If operation must be performed in the midst of the acute infection, drainage only of the gallbladder is usually indicated, though a cholecystectomy may be required later. If operation can be delayed until the acute process has subsided an easier and safer cholecystectomy may be performed. Most of these acute attacks occur in patients with gallstones, except those incident to acute general infections, and they frequently develop stones eventually.

Such disagreement as exists, and this applies to internists and surgeons alike, relates to the management of patients with chronic inflammatory disease of the gallbladder with or without stones. Reference is made first to those with stones.

On the basis of necropsy data, 15 to 30 per cent of all adults have gallstones, and at least twice that percentage have some gallbladder pathology. It is obvious, therefore, that only a small percentage of the persons with gallstones present symptoms of that condition. Some sur-

geons are of the opinion that there are no harmless gallstones and advocate the removal of all those incidentally found in a gastro-intestinal examination. This is not the general surgical opinion. Most surgeons, however, and internists as well, agree that it is wrong to allow patients to have repeated attacks of biliary colic, especially if jaundice occurs, without firmly advocating surgery and placing the responsibility for delay directly upon the patients and their families. Blackford, King, and Sherwood, at this year's meeting of the American Medical Association, reported on a 5 to 15 year follow-up of 200 cases of gallbladder disease not operated upon, at least within 6 months of the time of the original examination. They found that 37 per cent had satisfactory relief on a medical program of treatment, but 48 per cent came to operation later or should have done so. It is not stated in what percentage of their cases stones were found, though one half gave a history of biliary colic. It would be interesting to know whether or not these were the ones that later came to operation. Many of the patients with stones who have had biliary symptoms, and these symptoms probably indicate recurrent attacks of active inflammatory trouble, later come to operation because of complications, especially stone in the common duct. As a matter of fact, many of the patients treated surgically for gallbladder disease, though without jaundice or any other clinical evidence of complicating factors, have already hepatic or common duct stones. Lahey, who now explores the common duct in many of his gallbladder operations, has found such stones in 19 per cent of the cases. Previously, he did a choledochotomy only if it seemed indicated on clinical grounds or because of the palpation of stones in the duct at operation, and then found stones in only 8 per cent. Crump, in 1000 necropsies, found common duct stones in 24 per cent of the cases with cholelithiasis. Such stones, rather than adhesions, are usually responsible for a persistence of the patient's old symptoms after gallbladder operations. The seriousness of this situation, and the best argument for radical surgery in all gallstone cases, lies in the fact that the operative mortality is increased from 2 per cent for all cases to more than 13 per cent for those with common duct stone. The high operative mortality is, therefore, due to delay in surgery.

Cholangitis with secondary liver damage, hepatitis resulting from lymphatic extension of the inflammation of the gallbladder, pancreatitis, and acute attacks of cholecystitis are other common factors in the high mortality from gallbladder surgery. These also can be avoided

only by prompt operative treatment. Other less well understood but undoubted, complications of prolonged gallstone disease are vascular hypertension and myocardial disease. These disturbances, unless of marked degree, should not be looked upon as contraindications to surgical interference. Often such a procedure brings about a surprising improvement in the patient's circulatory condition.

In view of these considerations, it is my distinct belief that all patients with symptoms indicative of gallbladder disease and in whom stones can be demonstrated, unless there be clear-cut contraindications to any type of major operation, should be urged to accept surgical treatment.

When, however, stones cannot be diagnosed, either on the basis of typical attacks of biliary colic, by cholecystography or by other tests, the indications for surgery are less clearly definable. In these cases especially it is incumbent upon us to convince ourselves that the symptoms are not due primarily to some extra gallbladder lesion, and this, as already indicated, requires much study and often a trial of medical treatment directed toward the stomach, duodenum, colon, or liver. Even when lesions of these organs are eliminated with reasonable certainty it is wise to try a medical program of gallbladder therapy before resorting to surgery. If still the symptoms persist, and especially if the attacks are severe, and the cholecystogram or biliary drainage indicates impaired function, operation should be employed. In some of these cases, though not suspected, gallstones will be found. In all, whether stones be present or not, cholecystectomy, on the basis of surgical follow-up statistics, gives best results. About 85 per cent are reported as having a satisfactory result from this procedure, whereas only about 60 per cent of those having a cholecystostomy get a good permanent result.

This discussion of the indications for surgical treatment in gallbladder disease shows at the same time that medical therapy has a distinct and wide field of application. I need only mention the medical care of the mild acute cases, the management of all the surgical cases up to the time of operation, the treatment of those stone cases that refuse operation or in which operation is contraindicated, and the supervision of the cases of chronic cholecystitis without evidence of stone in which the indications for surgery are not clear.

The medical management of any of these groups cannot be detailed here, but reference may be made to the care of the chronic cases.

All are agreed as to the desirability of clearing

up foci of infection, avoiding excessive physical or nervous strain, regulating physical activity, prescribing fixed periods of rest, and of keeping the weight of the patient within reasonable limits. The chief controversy arises in connection with the sort of diet that should be advocated. It is still the custom to advise a diet low in its fat content, low in proteins, and high in carbohydrates. It is well understood today that the liver functions best if the glucose reserve is high, and since liver damage is frequently present in these cases the rationale of the high carbohydrate content of the diet is clear. Furthermore, the carbohydrates put a minimal strain on the digestive organs as a whole. It is claimed that the proteins should be kept low because of the strain on the liver in detoxifying their split products. This may be true, but it must be remembered that a minimal protein intake is required of any diet that must be kept up over long periods of time, and the amount should not be less than that commonly given diabetics. The chief difference of opinion relates to the fats. A generation or more ago fats were strongly advocated because of the belief that they aided in the solution of the stones. When this theory vanished it was discovered empirically that the patients were more comfortable on a low fat diet, and that is still the recommendation made in most textbooks. More recently, however, we have learned through the experimental work of Boyden and others that fats tend to empty the gallbladder and biliary system, a process that would seem desirable if dealing with a stagnant infected system, such as the biliary tract is in chronic cholecystitis. Furthermore, Lyon has claimed excellent results from nonsurgical biliary drainage which is more easily and probably more satisfactorily obtained by regular fatty meals than by an occasional duodenal intubation. It is true that some patients are more uncomfortable on a fatty diet and in some of them an attack of biliary colic may be produced, but those are often the ones with stones that should come to operation, and even without stones they probably deserve radical therapy. If such treatment is not possible, a low fat diet and the avoidance of salines may be necessary.

It is more important, and quite sufficient, that the diet be a simple, well-balanced one designed to avoid irritation of the digestive tract as a whole and that the feedings be small in amount, so as to avoid undue distention of the upper abdomen; also that it be such as to tend to keep the bowels in good condition. If necessary, mild laxatives and mild general sedatives should be used. No special direct value is obtained from other drugs.

Indications for the surgical versus the medical treatment of gallbladder disease have been reviewed briefly. A few comments on the fundamental principles involved in the medical management of the cases that do not seem to require more radical therapy have been presented.

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ABSTRACT OF DISCUSSION

CHARLES C. WOLFERTII (Philadelphia): One aspect to this question of special importance is whether the patient with evidence of circulatory disease, particularly heart disease and gallbladder disease, should be operated on. Two conditions are to be considered. One is a point touched upon by Dr. Colwell in discussing the cardiac patient as a surgical risk. We have to think, "What does heart disease add to the risk of operation?" We have also to think of the possible beneficial effect of removing the gallbladder focus. These problems can be settled only by a series of carefully studied cases. My impression is that many patients with gallbladder

disease and heart disease are definitely benefited so far as the heart is concerned by the removal of the diseased gallbladder.

HENRY K. PANCOAST (Philadelphia): An important point I failed to mention is that the presence of duodenal ulcer and other conditions of like nature in the vicinity of the gallbladder frequently give a positive Graham test—the absence or diminution of the density of the shadow of the gallbladder.

JOHN H. ARNETT (Philadelphia): Dr. Miller has been unable to go into details on every aspect of this subject, but I wish he would say a further word on the differentiation in the duodenal drainage findings between cholecystitis with stone and cholecystitis without stone.

DR. MILLER (in closing): The presence of crystals, especially cholestrin, is very suggestive of stone. As a matter of fact, I have not seen a patient who had cholestrin crystals in the drainage material who did not have stone at operation. If a patient does not have crystals in the duodenal contents it is impossible on the basis of that test to say that he has or does not have stone.

LESIONS OF THE ESOPHAGUS*

Roentgen-ray Study

WILLIS F. MANGES, M.D., PHILADELPHIA

The esophagus presents a variety of interesting diagnostic problems from infancy to late adult life. It is essential to life only in infancy. Later on a person can live by being fed through a gastrostomy, provided a sufficient amount of saliva is introduced with the food. It is, however, an undesirable way of living. Its only function is to carry food and liquids from the mouth and pharynx to the stomach. It is not a highly endowed organ. It is one of the most difficult to approach surgically except in the upper fourth. Its lesions are rarely amenable to medical treatment, but most of them are treated successfully through the esophagoscope alone or in conjunction with surgery. It is well protected from outside injury but throughout the entire span of life is subject to injury from within. It has a relatively poor pain sense, but a rather definite localization sense—that is, the patient usually has a definite idea of what portion of the esophagus is involved, if pain or a sense of obstruction exists. It reacts violently to suddenly acquired obstruction, but tolerates slowly developing narrowing and undergoes remarkable dilatation if necessary after prolonged obstructing influences.

Ordinary clinical methods are seldom adequate for complete diagnosis. The history is the

most important part of a clinical study and an important factor in any diagnostic procedure.

Most esophageal lesions give characteristic roentgen-ray signs, if the study is properly made, but there are many instances in which positive findings can be had only with the use of the esophagoscope, and frequently the additional help of the microscope. Manifestly, this paper must deal principally with the roentgenologic methods of diagnosis. This is hardly the place to give a detailed description of the technic used in the roentgen-ray study of the various lesions of the esophagus but a brief résumé of the principles involved may help make the rest of the paper more nearly clear.

Since the empty esophagus does not cast a distinguishable shadow on the roentgenoscopic screen or on the roentgenogram, it becomes necessary to put into the lumen of it something that is more dense or less dense than the surrounding structures. Usually barium sulphate in suspension and of varying degrees of viscosity is used to visualize the outline of the interior of the esophagus. Barium sulphate or some salts of bismuth may at times be given in semisolid food or in capsules. If a thin rubber tube or a sausage skin is closed at one end and then swallowed, one can fill the tube with air through the exposed open end and in this way determine the general size and shape of the lumen by shadows

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 4, 1933.

less dense than those of the surrounding structures, or this tube may be filled with liquid barium mixture to advantage in certain cases. The study always requires both roentgenoscopic and roentgenographic procedures, and should involve in most instances such observations in the erect and prone or recumbent postures or some modification of these. The entire lumen must be seen or shown filled to its maximum capacity during part of the examination and one should obtain a satisfactory roentgenogram of the entire esophagus completely filled. Only by showing that part of the esophagus distal to a lesion, filled with the opaque mixture, can one determine the extent of the lesion and at times the nature of it.

The lesions are congenital or acquired. They may be outlined briefly as follows:

Congenital: (1) Complete atresia; (2) shortening; (3) fistula (tracheo-esophageal).

Acquired: (1) Diverticulum; (2) phrenospasm; (3) ulcer; (4) stricture; (5) foreign body; (6) new growth.

CONGENITAL

Atresia is a relatively rare maldevelopment. Regurgitation of food starts with the first feeding and necessarily continues. It may be suspected clinically but the diagnosis becomes positive only after the blind pouch, filled with bismuth or barium, is demonstrated by means of the roentgen rays. The roentgenogram of the abdomen is apt to show air or gas in the stomach and intestines. This is because the lower segment of the esophagus usually communicates with the trachea or a bronchus. There is no occasion for differential diagnosis. Tenure of life is short.

Shortening of the esophagus, on the other hand, can be diagnosed only if completely distinguished from other lesions. This condition has been overlooked through the medical ages until comparatively recently. It must be relatively common because at the Jefferson Hospital we have seen 12 cases in a few years, and 3 of them we have found in the last few months. Dr. Clerf and I reported 9 cases at the meeting of the American Bronchoscopic Society, May 10, 1933. We found only one published report of this condition; it was by Drs. Findlay and Kelly. The cases reported by them, 7 in number, were all in children. Several of our cases have been in adults. The discovery and perhaps often the proof of the diagnosis have depended upon the bronchoscopic findings. Gastric mucous membrane is seen through the esophagoscope, or obtained by means of biting forceps through the

esophagoscope above the level of the diaphragm, and this is usually just below a narrowed lumen. The narrowing may be due to congenital influences or to ulceration. Ulceration occurs apparently because the gastric secretion comes in contact with the esophageal mucous membrane which is not properly endowed to tolerate it. A few of the cases have previously been diagnosed as ulcer. Others have been diagnosed and treated as strictures of unknown cause. A patient came recently because a bolus of food stopped at the narrowed portion and produced complete obstruction. The congenital shortening was found in studying the esophagus after removal of the foreign body.

It is interesting to note that these adult patients realize they are relatively comfortable as long as they remain in the upright posture. One patient, a woman weighing more than 250 pounds, has always slept in a semi-sitting posture. The influence of gravity has kept the stomach contents out of the esophagus. Alkalines give prompt relief of symptoms.

Congenital shortening gives striking and definite diagnostic evidence of its presence by means of a properly conducted roentgen-ray study. In all our cases there has been a narrowing of the lumen at about the level of the seventh dorsal vertebra; a tendency to dilatation above this narrowing; a more than normal lumen for the esophagus below this narrowing; an absence of pinchcock effect at the diaphragmatic opening; the presence of gastric mucous membrane rugæ above the level of the diaphragm, and an absence of tortuosity of the esophagus. To demonstrate the presence of gastric mucous membrane rugæ above the diaphragm, it is often necessary to make numerous roentgenograms with different amounts of barium in the lumen, and with the patient in the right oblique prone posture; or, in the case of very small children, in the recumbent posture with the head slightly lowered. The absence of closure at the diaphragm level can best be shown after enough barium mixture has been given to fill the stomach. Then, with the patient in the right oblique prone posture, one can see by means of the roentgenoscope that the lumen remains constantly quite wide at the level of the diaphragm, and any roentgenogram under these conditions will demonstrate the absence of the pinchcock effect.

In all cases it is shown that the esophagus is not long enough to reach the level of the diaphragm, and this is the essential point in the differential diagnosis between congenital shortening and hernia of the stomach through the diaphragm with a normal length of esophagus.

The diagnosis is an extremely important one because the simplest expedient of keeping the patient in a semi-erect posture will usually control the symptoms, if obstruction has not developed.

I have seen one case of what seemed to be a congenital fistula between the esophagus and trachea, just a little below the level of the cricoid. This was found on bronchoscopic or esophagoscopy study by Dr. Jackson. The patient was an adult woman. Roentgenograms showed a soft rubber bougie or catheter entering the trachea and emerging through the mouth by way of the esophagus.

ACQUIRED

The acquired lesions are all amenable to treatment under favorable conditions except those due to malignant new growth. The best results in the benign lesions are obtained in those instances in which the condition is recognized early, and diagnostic efforts are complete.

Diverticulum is rather common at the level of the sixth or seventh cervical vertebræ. It may develop in any portion. Symptoms are apt to lead to a clinical diagnosis of diverticulum in the upper end because the patient does not seek advice until the sac is rather large and interferes with swallowing, by which time outward physical signs are easily elicited. The actual size and location of the diverticulum can be demonstrated only by means of an opaque liquid meal and the roentgen rays. The roentgenologist can aid the surgeon by demonstrating the size of the sac, the exact location of its opening, and the position of the sac with relation to the median line, and whether it is unilocular or multilocular. This information influences the selection of the site of operation. The barium-filled sac is always smooth in outline.

In recent years surgeons have been successful in removal of this type of diverticulum. Following such operation, roentgen-ray study will show the surgical results.

I have observed a large diverticulum in the lower third of the esophagus over a period of years, and during that time there were never any symptoms referable to it, nor any change in its size or shape.

Phrenospasm is probably the most common of all benign lesions. It may occur at any age. I have seen it in infancy. One young adult, with an enormously dilated esophagus and almost complete spasmodic obstruction at the diaphragm, never knew that he had any difficulty in swallowing. He came to Jefferson Hospital with a diagnosis of a mediastinal tumor, based

on a roentgenogram made at another institution. The dense mass shadow was due to a constantly filled, very large esophagus. The majority of patients, however, are adults and they usually realize their swallowing difficulties.

The roentgen-ray diagnosis depends upon evidence of dilatation, the smooth outline of the barium shadow at the lower end, and intermittent emptying. A spasm may be made to relax by filling the esophagus to such an extent that the patient can force the swallowing effort. At times hot liquids will cause relaxation. One cannot demonstrate the cause of the spasm roentgenographically.

Differential diagnosis between this condition and obstruction of the lower end of the esophagus from intragastric growth is important. It is necessary to fill the cardiac end of the stomach with barium if possible. Should the gastric lesion cause obstruction, there is apt to be but little dilatation above because the lesion has usually existed for a relatively short time.

Diagnosis of ulcer of the esophagus is not made by roentgen-ray study. It is, strictly speaking, made only by direct vision through the esophagoscope. There is roentgen-ray evidence of a lesion, caused by spasm or cicatricial contraction, at the level of the ulcer, but the ulcer signs are not positive as they are in the stomach or duodenum. The occurrence of ulcer in connection with congenital shortening has been mentioned.

Ulceration resulting from irritants, such as lye, ammonia, acids, *etc.*, practically always results in stricture formation. These strictures may occur in any portion of the esophagus; they may be sharply limited or may involve a considerable portion of the length of the esophagus; there may be more than one point of narrowing; and the degree of obstruction may be anything from slight narrowing to complete obstruction.

History of the accident is almost always positive because the accident is painful. Children are mainly the victims but adults occasionally make the mistake intentionally or otherwise of swallowing irritants.

The outline of the barium-filled esophagus is always smooth and sharply defined, regardless of the length of the stricture. The proximal portion is dilated according to the degree of narrowing and the length of time the lesion has existed.

We recently had a patient who developed almost complete esophageal obstruction in the middle third, following typhoid fever. In all probability, an ulcer preceded the stricture formation.

The most frequent lesion of the esophagus results from the swallowing of some foreign object that will not pass on through the esophagus. Foreign bodies lodge in the esophagus either because they are too large in one or more dimensions to pass through; or they have sharp points or projections that catch in the mucous membrane; or they irritate and produce spasm which prevents their passage. The foreign body that lodges because it is too large to go through, such as a coin, a metal toy, a button, or large open safety pin, is common to infants and young children. In adults the obstructing foreign body accident is less frequent, and the object found is apt to be something like a peach stone, an artificial denture, or a bolus of food. On the other hand, the foreign body that lodges because of a sharp point or projection is more commonly found in adults. Fish bones and meat bones are the most common of this type. One occasionally finds a thumb tack, a piece of glass, or a small campaign button in children.

From the roentgen-ray point of view, they are either opaque or nonopaque to the rays. If opaque, one determines the nature, size, number, position, distribution of the parts of the foreign body, and complications or damage to surrounding parts, when evidence of penetration or perforation exists. When the foreign body is nonopaque to the rays, the patient is given a liquid mixture of bismuth or barium and the passage of it through the esophagus is noted. If the foreign body is obstructing, the barium will not pass. If it is not obstructing but has size, shape, and surface of such a character as to catch and hold some of the opaque mixture, the diagnosis becomes positive, and if the opaque substance is distributed in such a manner as to reveal the characteristics of the foreign body—for example, if it is retained in the thread holes of a button—the actual nature of the foreign body may be learned.

If the foreign body is small, slender, pointed, and caught in the mucous membrane, liquid barium mixture will not reveal its presence. But, if the patient is given a capsule, size 00, filled with barium, to swallow, the capsule will almost invariably be stopped by the foreign body. If this test is carried out properly, the diagnosis is positive when the capsule lodges. A negative diagnosis of foreign body is never made if the capsule passes and the history is that the accident occurred and that the foreign body was probably small and sharp, and patient continues to have pain. In such event esophagoscopy is indicated.

It is proper to mention the fact that physicians often make too light of the history of accidental swallowing of foreign body, particularly if the

patient is a child. They assume that the foreign body will pass on, or that the accident really did not or could not occur. For example, a boy, age 5, said he had swallowed a 50-cent piece. The doctor consulted dismissed the matter by saying it was impossible for the boy to swallow anything so large. The boy lived to age 10 with the half dollar in his esophagus, and, though other doctors were consulted, he had a roentgen-ray study only a few days before he died of an empyema necessitatis, the result of a fistula between the esophagus and pleura.

An adult patient carried an artificial denture in his esophagus 17 years, because the surgeon he consulted at the time of the accident said it was impossible. At the time of the first roentgen-ray examination he was able to swallow only very small quantities of very thin liquids, and was greatly emaciated.

The only safe rule to follow in the face of a history of foreign body accident is to go as far as possible to prove that the foreign body is or is not present.

Complications that result from penetrating or perforating foreign bodies, as a rule, give positive roentgenographic signs, because they are associated with collections of exudate, or gas, in the periesophageal structures either in the neck or in the mediastinum.

New growth of the esophagus is usually fairly well advanced before the patient comes to the roentgenologist, and then the important parts of the study are to determine the location, the extent of involvement, the size of the lumen, to show evidence of periesophageal mass, and the degree of dilatation proximal to the lesion. Occasionally, a bolus of food lodges at the level of a new growth and produces obstruction and thus brings about an investigation that leads to the new growth discovery, especially if the patient is studied carefully after the foreign body is removed.

The vast majority are infiltrating in character and carcinomatous. The barium almost invariably shows an irregular surface where it is in contact with the lesion. Farrell found only one out of 77 cases with smooth barium shadow. In a very few instances the tumor is intra-esophageal and pedunculated, and then the barium mixture will be seen to spread over the intruding mass and show a concavity on its lower surface. This is true also of the obstructing type of foreign body, such as a bolus of food.

The chest should always be studied for evidence of metastasis, even though there is rarely any present.

Bronchoscopic biopsy should always be done

for differential diagnosis, because treatment should be based on the character of the cell present.

235 S. Fifteenth Street.

ABSTRACT OF DISCUSSION

GEORGE W. GRIER (Pittsburgh): There are several points which Dr. Manges mentioned that I should like to emphasize. First, the slides which he has shown you demonstrated the lesions which he spoke about. It requires much skill to demonstrate these lesions. Dr. Manges wisely said that he would not refer at any length to technical questions, but the question of technic is an extremely important one in the diagnosis of esophageal conditions. Most of them must be demon-

strated by the fluoroscope before they can be seen on the films and it requires skill to do this while the patient is swallowing.

The second point is that while the roentgen ray is a very valuable agent in demonstrating lesions of the esophagus, there are occasions on which it is impossible to make a differential diagnosis without direct vision, and this does not reflect at all upon the value of a roentgen examination. It is impossible to distinguish between the different types of ulcerative and obstructive lesions by the appearance of the roentgenograms.

The usual spasm of the esophagus has a characteristic appearance; it usually occurs at the cardiac opening, though spasms can occur in the middle of the esophagus and in other portions than the cardiac opening. Also obstructive lesions can occur in the middle of the esophagus and may be mistaken for organic lesions if there is only a spasm.

AN ADDRESS BEFORE THE PENNSYLVANIA TUBERCULOSIS SOCIETY*

DONALD GUTHRIE, M.D., SAYRE, PA.

It is important at this time that the good work of your organization should be understood and appreciated by the medical profession and it is important that the medical profession's attitude in this State, in regard to your labors, should be known to you.

You have just finished a most comprehensive, important program which has brought together many of the best minds in your organization to discuss freely with members of the medical profession matters of common interest and this meeting cannot help but clarify the uncertainty or misunderstanding that may exist in the minds of some members of the medical profession about your labors.

I wish to congratulate you most heartily upon the splendid work your society has done in the past and is doing today—for it is but a very short time since the organization of this body, formed about the time Herman Biggs was trying to convince the medical profession in New York that tuberculosis is a contagious disease. When we are told that the present death rate in Pennsylvania (54.6 per 100,000), although too high, is less than one-half the number (151 per 100,000) in 1906, it speaks volumes for your work and that of the medical profession in this war against the White Plague. Your efforts have made the public tuberculosis-minded and it is because of your continuous publicity of the subject and your untiring work in the education of the public that these splendid results have been accomplished.

Your organization was the first to enlist on its side the women of this country in a cam-

paign of education and publicity and it was largely through their efforts that your early successes were due. We have all learned since, that the success of any educational movement depends upon how largely the women help in the work and you, in this connection, have served as "trail blazers."

To direct education of this type there is need for an organization and organization means overhead expense; a matter which is difficult for the laity to understand. Therefore, the public should be educated as to the vital necessity of the existing overhead expense.

I dislike to refer to education propaganda and to advertising in the same breath or liken one to the other—but there is no truer saying than "out of sight—out of mind," and in work of this kind the very minute the public no longer hears or sees anything about tuberculosis or cancer, or about periodic health examinations, then the public immediately forgets these subjects and its mind is occupied in some other line of thought. We have found this to be true in our work in education in cancer and appendicitis, for as soon as we relax our efforts of education in a community, the number of late cases begins to increase.

In business it is reported to me, by friends who are officers in tobacco companies and in other lines of business and industry, that the sales of well known and established brands of goods and supplies depend always upon the amount of advertising, that there is always an unusual drop in the sales of these articles as soon as advertising is curtailed, with the usual in-

* Harrisburg, Pa., Jan. 24, 1934.

crease in sales when the advertising program is renewed.

So the subjects of tuberculosis, cancer, periodical examinations, appendicitis and all matters pertaining to the public health, demand constant forms of education by exhibits, public lectures, press articles, and radio broadcasts, if good results are to be obtained through the co-operation and understanding of the public.

It is thus very necessary that your elaborate plan of reaching the public and keeping it awake and interested must be continued, if the good work of promoting the prevention, the early diagnosis and treatment of tuberculosis, is to go on.

During a period of 27 years (1906 to 1932, inclusive), 241,915 persons died of tuberculosis in Pennsylvania and these deaths constituted 7.6 per cent of the total mortality; in the city of Philadelphia there are 10,000 to 14,000 cases at present and each year brings out 2400 to 3000 more cases; there are 48,000 active cases of tuberculosis in Pennsylvania at the present time and there are nearly 700,000 persons in the United States today ill with tuberculosis. This is a tragedy because the disease is preventable.

Tuberculosis kills more persons between the ages of 15 and 45 than any other disease; decreases by $1\frac{1}{2}$ years the average length of life; and costs the nation one billion dollars yearly. The economic loss to the nation as a result of this disease is staggering, as the disease costs about \$8.00 for every inhabitant in this country. The bright spot amid all this gloom is that relatively only one-third as many persons died of tuberculosis in 1932 as in 1900.

It is my understanding that 80 per cent of the money collected from the sale of Christmas Seals remains with the local agency and that the share of funds remaining with the Pennsylvania Tuberculosis Society in the past 6 years has ranged from 7.9 to 8.8 per cent; the amount for use in 1932 was \$43,568.30 and undoubtedly a smaller amount was turned over in 1933.

The morbidity of tuberculosis is scarcely approached by any other disease except that of terminal states. The average patient with tuberculosis is under care for a period of $2\frac{1}{2}$ years; the usual stay in a sanatorium is about 6 months and the cost is approximately \$500. Thus, if all the 48,000 tuberculous patients in Pennsylvania could receive sanatorium care the cost would be \$24,000,000. How far would \$43,568.30 go to defray this expense?

The suggestion that the funds of this organization should be largely given over to the actual treatment of the disease is not well taken, because you would have funds for the treatment

of a very few cases and this would be possible only at the expense of your vitally important educational campaign. It would be important to emphasize oftener to the public and to the medical profession upon every occasion, the necessity of your educational work.

Tuberculosis can be prevented by preventive, educational, and curative measures. The preventive measures are health education, physical examinations by physicians for early discovery, dispensaries in which those who cannot afford a private physician may go for examination and care, tuberculosis nurses for the instruction and care of patients, and preventoria and open-air schools for physically underpar children. Christmas Seal Funds provide tuberculosis nurses, clinics, tuberculin tests, and roentgenograms, and promote open-air schools, health camps, home care for the ill, medical research work, and furnish health education for prevention of tuberculosis.

The national, State, and local tuberculosis associations have been influential in the establishment of sanatoria and public health nursing service for tuberculosis throughout the country. There are now 600 sanatoria with more than 80,000 beds and at least 7000 public health nurses engaged in tuberculosis work. There are 3600 traveling and permanent clinics for the free diagnosis, treatment, and education of adults and children. At least 1000 open-air schools and classes, more than 100 preventoria, and as many summer camps are provided for children who are substandard or were in contact with tuberculosis.

It has long been accepted without question that fundamentally, protection of the health of the people and the care of indigent sick are governmental responsibilities, whether municipal, state, or national. It was believed that far more could be accomplished by voluntary agencies in combating tuberculosis through working along educational lines rather than spending their limited funds in institutional activities.

In the 26 Christmas Seal sales, beginning with \$3000 in 1907, the average return each year has been less than \$3,000,000. These sums have been distributed over the whole United States. In no state of the Union has the amount available in any given year been sufficient to provide more than about one year's care for some 3000 patients or 0.4 per cent of the total load. At the present time the sanatoria and hospitals for tuberculous patients in this country are annually treating about 200,000 cases. The annual cost of maintenance of these institutions is about \$60,000,000.

A study of the development of the tuber-

culosis campaign in the United States from 1910 to 1920 shows that a significant factor in the growth of tuberculosis hospital beds, clinics, child health work, and other activities for control of tuberculosis was the organization of hundreds of tuberculosis associations under the leadership of the National Tuberculosis Association.

The relatively small amounts available from the Christmas Seal sales would not have produced any appreciable result if applied directly to relief and hospitalization, but applied to education and organization they very materially affected the entire situation. It is not too much to say that a proportion of the beds in hospitals owned and operated from tax funds have been secured directly as the result of the agitation and organization of the tuberculosis associations.

Dr. David T. Lyman in an article, "The Place of Hospitals and Sanatoria in the Tuberculosis Problem of the Next Twenty Years," in 1929, prophesied that "the real treatment of the tuberculous will be when sanatorium care can be combined with general hospital facilities. Even the best sanatoria can scarcely furnish care on a par with the modern general hospital, the reason of course being that the sanatoria are often too far removed from large medical centers."

Dr. J. J. Singer writes:

In 1925, Dr. Willy Meyer and Dr. Adolph Knopf both read papers at the meeting of the American Association for Thoracic Surgery concerning this problem. In these papers the authors published answers to questionnaires sent to tuberculosis men in various parts of the country showing a practically unanimous opinion that patients should be admitted to general hospitals and provisions made for their care.

Admitting tuberculous patients to general hospitals has been practiced in Europe extensively. One to 200 or more cases are to be found in general hospital groups, sometimes in large wards, at others in special buildings. Brauer in Hamburg, Müller in Munich, Rist in Paris, and others, all have such chest services in general hospitals.

For patients who have to remain in free wards it is asked: Are they a menace to other patients, to the nurses, or to the personnel? Statistics seem to prove that adult infection is not probable. Instruction to nurses as to the correct methods of handling tuberculous infection is given. Barnes Hospital of St. Louis has arranged a division and also a department for the examination of tuberculous patients. The second floor of the Rand Johnson Memorial Building of this hospital was set aside for patients requiring treatment for chest conditions. It is modeled after the best sanatoria with arrangements which make it ideal for the care of such patients.

A letter from Evarts A. Graham concerning the admission of patients with pulmonary tuber-

culosis for surgical treatment in the Barnes Hospital states:

We have been admitting such patients for nearly 10 years. These patients when admitted to the general wards are usually isolated from the rest of the ward either by putting them on the porches off the wards or in some other way. There has been no greater incidence of pulmonary tuberculosis among nurses or personnel of the hospital since we have been doing this than there was before. The same procedure is carried out in the University of Michigan Hospital at Ann Arbor, at the University of Wisconsin Hospital at Madison, at the Royal Victoria Hospital at Montreal, at the University of Illinois Hospital at Chicago, and I believe also at the University of Iowa Hospital at Iowa City. I am sure that there are many other general hospitals in which such patients are admitted.

Most of the sanatoria in Pennsylvania are situated away from the larger cities which have hospitals equipped for the care of tuberculous patients without danger to other patients and the hospital personnel. If certain hospitals could admit and care for patients awaiting admission to the sanatoria and those who may be benefited by surgery and other methods of collapse, it might lighten the load and bring about better care for the patients who should go to the sanatoria, but who are forced to wait for months before being admitted to these institutions.

A word about your work that is not purely educational. You need not be reminded that there is a growing effort and determination upon the part of the leaders of medical thought and action to restore the general practitioner to the central place in medicine, the place where he rightfully belongs; and that it is our determination to bring this about and at the same time to guard his professional prerogatives and to protect his welfare. You know too that the medical profession is aroused and militant because of the recent threats of the socialization of medicine. Its members resent the various schemes and plans advocated by certain lay organizations and prominent laymen who, basking in the light of self-appointed guardianship of the public health, suggest that this mission of taking care of the ill—and it is a sacred mission—may be largely taken out of the hands of the medical profession.

The net result of all this is that the medical profession today is resentful of the inroads which have lately been made upon it and have become alert and watchful and are determined to correct many of these recent gross injustices. Your work cannot succeed without the support of this professional body for without their support your great work is doomed to failure.

In attempting any of your work which is not purely educational let me urge upon you to work

in close association with the local medical profession through the Public Relations Committee of the County Medical Society and that you obtain their sanction of your proposed endeavors before instituting them.

If you will do this, much of the criticism which has been hurled at your work and at your organization will cease and future misunderstanding will be made impossible.

Robert Packer Hospital.

CASE REPORTS

MUCOID CYST OF THE MAXILLARY SINUS CAUSING EPILEPSY*

J. EDWARD JAMES, M.D., BETHLEHEM, PA.

It is not an unusual occurrence to find growths within the nasal sinuses but I have been unable to find, in reviewing the literature, that a cyst was a causative factor of epilepsy.

Cysts are divided generally into 5 groups: Cysts which originate independently as the result of pathologic change; cysts formed about foreign bodies; cysts formed by new growths in tissue in the spaces of which various kinds of fluids accumulate; congenital cysts; and cysts which develop in preëxisting cavities, as retention cyst and transudation cyst.

Epilepsy is defined as convulsive seizures with loss or impairment of consciousness resulting from widely varying causes as: Hysteria; uremia; puerperal eclampsia; poisons as alcohol and lead; brain lesions as a gumma and a tumor; arteriosclerosis; traumatic injuries; and reflex.

Much has been written of reflex epilepsy. There has been more or less confusion on the subject arising from the lack of unanimity of opinion. The test of reflex epilepsy must always be the disappearance of symptoms or attacks after the reflex irritating cause had been removed.

The case to be reported belongs to the reflex group.

The patient, a male, age 30, married, an engineer. The family history is free from nervous and mental disease. Had always enjoyed good health until 6 months before the first attack.

Was under observation in a general hospital for a week and a final diagnosis made of epilepsy (idiopathic). Not content with the findings, and because of the sudden onset of the disease, he felt there must be a cause. He had not been examined by a rhinologist and came to my office for, as he said, a final checking up. It was his impression that tonsil infection might cause epilepsy.

On examination, he was paler than the normal, and rather drowsy, which may have been caused by a convulsion that morning, or the effect of a sedative.

The attacks 6 months ago came or started once a week, and were gradually increasing to one a day. It was impossible to continue his daily work and he was

brooding over the future. The symptoms were that of a true type of epilepsy. No history of injury or a fall was found by elicitation. He complained of a slight pressure over his eye but not distinct pain. Attacks came on suddenly—first an impression of a bright light before the eyes followed by a stiffness of his face and neck muscles—then unconsciousness to his surroundings with loss of voluntary control of organs. There were no particular group of muscles involved during the attack. The attack was general; his face became extremely pale. After a period of 5 minutes the body would relax and he would enter into a somnolent state for half an hour. Upon awakening, would complain of general headache lasting for several hours.

Nothing of importance could be gleaned from the different tests. Spinal and blood tests for syphilis were negative. Blood study normal. The blood serum when injected into a rabbit did not cause convulsive seizures or death. The examination of his eye grounds was negative. The nose and throat examination revealed the following: A markedly deflected septum to the left. The left lateral nasal wall was more edematous than is usually found and compared with the right side was quite marked. On transillumination of the sinuses, the left maxillary showed a marked contrast to the others. Lavage from antral puncture returned clear but stained slightly pink. A roentgenogram was made and a report of a growth in the sinus was given.

Because of his nervous state and no contraindication, gas-ether anesthesia was given for a Caldwell-Luc operation.

The left maxillary sinus when opened through the canine fossa revealed a large cyst the size of an egg with a few hard, smaller cysts. The sinus walls were denuded of the thickened swollen membrane and cysts. Plain gauze was used to pack the sinus and a portion brought out through the nasal opening. A mucoid cyst was the report of the pathologist.

The postoperative reactions were that of the average case, and the patient left the hospital in 5 days. At no time following the operation did the patient have convulsive seizure. Three months following the sinus operation a submucous resection was performed under local anesthesia. Eight years have now elapsed since the removal of the cyst and to this date, the patient has not had an epileptic seizure or attack.

There is no doubt that with every physical examination, a routine nose and throat examination should be made. If it does not find a cause, it may be a means of preventing any serious illness if pathologic changes are about to take place.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

HEREDITARY WEAKNESS OF THE SUSPENSORY LIGAMENT OF THE CRYSTALLINE LENS*

P. HAROLD DECKER, M.D., WILLIAMSPORT, PA.

The title of this paper is not completely accurate. The purpose is to report the eye findings in a family so affected—rather than to discuss the condition itself as a pathologic entity. No attempt is made to go into the associated or pathologic background or to refer to the literature on the condition. The picture presented is that of a family so affected and the outcome.

The family, of German descent, came to my attention first in 1919 when I was in general practice. At that time the mother, a frail woman of about 100 pounds weight died of influenzal pneumonia. She was wearing very thick glasses at the time of her death and was able to see but very little. At that time I was not especially interested in eye work so can add no more to the eye history from her standpoint, but so far as I can learn she had never undergone any eye surgery. She died, aged 47, and was survived by 6 boys and one girl.

The father, a very large man, weighing over 200 pounds is still living, in good health, and has normal vision. Apparently the hereditary visual defect came from the mother.

The history of the children follows:

John, living, age 42, operated upon about 15 years ago. Vision in the right eye lost following operation, but the eye was not removed. It now presents a small stub of eyeball the size of a hazelnut. The left eye is aphacic and presents a tiny slitlike aperture at the upper limbus, through which, with the aid of a cataract glass, he can see sufficiently to get around. There was apparently an attempt to deliver the lens, with total failure in the right eye and loss of vision. Apparently the attempt was partially successful in the left eye, but resulted in a large prolapse of the iris and most likely vitreous loss as the patient was in the hospital for a period of 9 months for both of these operations and subsequent complications.

The second son, William, not seen by me; died, aged 29; cause of death "heart trouble." He was said to be practically blind at death. Could not attend school because of poor vision. Never had any operations on eyes.

The third son, Bruce, seen first in 1927. Presented himself with acute glaucoma of 2 days' standing of right eye, following a fall from an apple tree in which he sustained a dislocation of his right lens. The left eye presented an old shrunken calcareous dislocated lens of some years standing, with a divergent squint of 20 degrees and vision of 6/60.

An anterior sclerotomy was done and the lens pushed back into the vitreous chamber. Two days later it again came forward through the pupil and rise of tension had recurred. At this time an iridectomy was done. Several weeks later, because of the inability to keep the lens out of the coloboma area, an attempt was made to deliver the lens through an incision of the upper third of limbus. Owing to high myopic changes and fluid vitreous this was followed by considerable vitreous loss and secondary retinal detachment, resulting ultimately in loss of useful vision of this eye.

The left eye again took up active visual duty and has since served him for rough work, improving to a visual acuity of 6/15 in 1932.

The fourth son, Jesse, age 27, first seen in 1930. Gave history of having jumped from a height of 4 feet and dislocated the lens of left eye, presented himself on second day from this with severe secondary glaucoma of 2 days' standing with lens caught in pupillary space. Because a previous experience with his brother, no attempt was made to deliver the lens, but it was needled and to a limited extent couched beneath the edge of the iris and eserine instilled to keep it back of the iris diaphragm.

Absorption and fixation of the lens mass occurred back of the iris margin and the patient has had a quiet eye since with a visual acuity of 6/9.

Two years later there was a spontaneous dislocation of the left lens and an exact similar picture presented itself. Similar surgical procedure was attempted but the lens refused to stay out of the pupillary area and even though eserine was used the glaucoma immediately reoccurred. The anterior chamber was tapped 4 or 5 times and finally an iridectomy was done. Through the keratome opening a knife needle was inserted and the lens pushed well back of the iris—it remained and has since been quiet and nonirritative. The visual result here is also 6/9 and the eye has been quiet and comfortable throughout the past year.

Fifth son, Orville, died in service, aged 24, cause of death not known. This patient's eye history is not known but as he was accepted in the draft, it was presumably negative.

Sixth son, Wallace, age 29, first seen in 1929. Presented himself with a spontaneous dislocated lens in the left eye, and secondary acute glaucoma of 24 hours' standing. This was successfully needled and partly couched. It remained free from the pupillary area and slowly absorbed; vision, 6/20, resulted.

A year later, 1930, a similar picture was presented in the left eye and similar surgical procedure resulted in a similar result in this eye. He remained free from further trouble and eyes remained quiet until his death which occurred suddenly last fall from what was supposed to be heart trouble.

The seventh child, now living, a sister, has never been to see me. She is supposed to have "good eyes."

Thus out of a family of 7, four have had bilateral spontaneous dislocation of both crystalline lenses. Operative measures have been necessary in 7 of these eyes. Secondary acute glaucoma of severe grade was a complication in every case. William, the second son, most likely had a similar condition, as he was practically blind all his life, dying at age of 29.

I have also operated in the third generation in this family—in the case of a child of Bruce, the third son cited. His son, age 7, was operated upon in 1928 for congenital nuclear cataracts and bilateral dislocated lens. Both lenses were needled under ether, resulting in a visual acuity of 6/12 for the right eye and 6/6 for the left eye.

This family thus necessitated operative interference for dislocated lens in 9 eyes. Final results are as follows: Vision lost in 2 eyes. Useful vision retained in

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 3, 1933.

2 eyes. Good visual results obtained in the remaining 5 eyes.

The operative procedures were varied in these cases depending upon the success met with as the case progressed. In most cases several needlings were required. In several cases in which the lens could not be trans-fixed with one knife needle, the use of 2 knife needles

was necessary: one to fix the lens, the other to help incise it or work it into the position desired.

The blood Wassermann tests were negative and outside of death at early ages, the general health of this family has been good.

410 First National Bank Building.

CROSSED RENAL ECTOPIA*

LEON HERMAN, M.D., PHILADELPHIA

Congenital renal ectopia is not a rare anomaly, but crossed ectopia with or without fusion of the renal masses is a rather rare representative of the condition. We have studied 2 cases one of which is reported herewith. A collection of 80 cases of this interesting malformation has been made by Papin and Palazzali.

A general consideration of the surgical significance of crossed renal ectopia is not within the province of this report, but attention may be called to the great frequency of complications demanding surgical treatment occurring in association with all types of renal anomalies.

REPORT OF A CASE

R. M., age 10, was referred March 30, 1933, on account of prolonged fever, pyuria, and an attack of hematuria. The latter, which was accompanied by abdominal pain, occurred in the fall of 1932 and lasted one day. The history was otherwise unimportant.

Urologic study, March 16, 1933, disclosed a mildly infected almost completely functionless right kidney; the lower urinary tract was normal, the ureteric orifices being in normal position. At this time the presence of a congenital renal anomaly was not suspected. Pyelogram of the left kidney disclosed the following: The pelvis is approximately normal in size and position but markedly abnormal in shape (Fig. 1). The middle calices are directed inward, the upper ones upward, inward, and outward. The lower pole of the pelvis lacks minor calices and the pelvis as a whole seems flattened somewhat and stereoscopically shows internal rotation. The ureter is dilated and enters the lateral margin of the pelvis. Except for its normal position, the pelvic deformity is suggestive of horseshoe kidney.

On March 29, the patient was readmitted for pyelographic study of the right kidney. Routine study again showed functional disability of the right kidney which excreted only slight traces of phthalein. The ureteropyelogram reveals crossed ectopia, the ureter crossing the spine and ascending to the left of the midline. The pelvis is likewise displaced to the left and lies directly over the left border of the spine at the level of the second and third lumbar vertebra. The pelvis is enlarged, distorted, and flattened. The calices are dilated, one

being directed toward the right, the others toward the left side.

COMMENT

The foregoing findings indicate crossed ectopia of the kidney, the right kidney being hydronephrotic. In all probability, the renal masses are fused (in 70 of Papin's and Palazzali's 80 cases

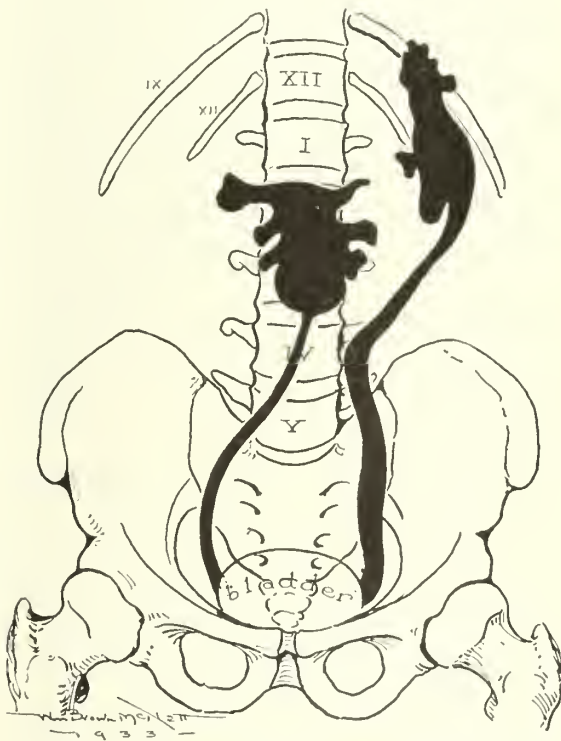


FIG. 1.—Crossed renal ectopia with hydronephrosis of the right kidney. (The probabilities are that the kidneys are fused.)

fusion was found) so that the success of heminephrectomy is problematic. This operation by the transperitoneal was advised but the parents have elected to delay.

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

Medical Arts Building.
16th and Walnut Streets.

NEPHROPTOSIS*

With Bilateral Reduplication of Ureters

LEON HERMAN, M.D., HENRY SANGREE, M.D., AND MARTIN COSTELLO, M.D., PHILADELPHIA

Bilateral ureteral reduplication is one of the rarest of congenital anomalies of the upper urinary tract. Unnatural mobility of an anomalous kidney of this type is disproportionately rare. An illustrative case is herewith reported, the nephroptosis being the third degree.

Mrs. M. A., a white woman age 30, was admitted to the Bryn Mawr Hospital, June 17, 1933, complaining of attacks of pain in the right renal area. These attacks were sharp and knifelike but of brief duration. In addition to the acute pain, there was constant dull aching distress in the right loin. Dysuria, frequency and nocturia were additional complaints. The vesical symptoms followed an appendectomy in 1927, but there is no history of catheterization at this time. The physical examination was negative except for the presence of a movable mass in the lower right abdomen. Cystoscopic examination disclosed a normal bladder with four ureteral orifices which later showed no abnormality. Intravenous urographic studies disclosed complete reduplication of each ureter with small but otherwise normal pelves and marked nephroptosis on the right side. Catheterization disclosed no ureteral obstruction and the urine from each segment was grossly clear, culturally sterile, and, with the exception of an occasional leukocyte, normal microscopically. Differential functional studies (phenolsulphonephthalein given intravenously) gave the results recorded below.

	Appearance Time	Function— 15-minute period
Right anterior	5 minutes	10%
Right posterior	7 "	10%
Left anterior	5 "	10%
Left posterior	5½ "	15%

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Philadelphia Session, Oct. 5, 1933.

Attention may be called to the fact that the ureteral orifice situated most anteriorly drains the uppermost segment of the kidney.

At operation the extreme mobility of the right kidney, as indicated by urographic studies, was confirmed. There was no evidence of separation of the kidney substance, the two ureters draining what to gross appearance seemed to be a single normal organ. The blood supply was communal in type. Nephropexy was performed following usual technic of Leon Herman, which is briefly as follows:

After complete severance of all adhesions, the capsule is split along the convex border of the upper two-thirds of the kidney and rolled back. Through the reduplicated edge of the capsule, a transfixion mattress suture of No. 2 chromic gut is passed picking up the folded capsule on the opposite side of the kidney and taking care to avoid perforation of the calices. The ends of the mattress suture on either side of the kidney are tied snugly over generous pieces of fibrous fatty tissue taking over the margin of the incision. This mattress suture is variously placed in the kidney, depending upon the necessities of the case as regards high elevation of the organ—but always above the mid-point. The anterior parts of the ligatures are anchored to the twelfth rib, the posterior ones to the lumbar muscle. Gerota's fascia is then removed in part and the remaining portion so plicated as to furnish a fascial sling for the kidney, the edge of the fascia being anchored deeply in the upper angle of the incision. The wound is closed without drainage.

As concerns the case under discussion, the recovery was uneventful and the patient is free from symptoms. A recent urographic study showed the kidney to be maintained in normal position.

Medical Arts Building,
239 South 45th Street,
1601 Walnut Street.

STATE MEDICINE PREDICTED

In an address at the commencement exercises of the Cornell University Medical College, Dr. Thomas Parran, Jr., Health Commissioner of New York State, declared that society must make itself responsible for a wider spread of medical service. Pointing out that in New York State alone more than 50,000 persons die annually for lack of proper medical care, which could be prevented by a form of state medicine, Dr. Parran asserted that the total cost of providing all the medical care is easily "within the collective ability of the state and nation to bear." "There are two methods which are most generally discussed for reaching these objectives," he continued. "First, a continued extension of tax support to provide the accessories of medical care to the lower income groups of the population, to provide medical service for the indigent and near indigent, and to extend present public activities in the diagnosis and treatment of the chronic and, therefore, the more expensive disease.

Under this plan hospitals would receive a larger proportion of tax support than at present, more public hospitals would be built, many private institutions unable to maintain themselves would be taken over and operated through tax levies." Replying to arguments against health insurance, he said: "The point is lost sight of that even the faculties of our medical schools, the research workers in our laboratories, seem to have kept an interest in scientific progress and continued their devotion to public service in spite of the 'handicap' of a salary. Some of the most vocal of the spokesmen for rugged individualism in medicine, who denounce any form of medicine except that which provides a livelihood by fees for service, are themselves salaried employees. The practitioners of the future will not be able to choose between a completely individualistic system of medical practice and a system socialized with more or less completeness. It is only the degree of completeness which remains to be determined."—*Medical Record*, July 4, 1934.





MOSES BEHREND, M. D.

MOSES BEHREND

President-Elect

MOSSES BEHREND, eighty-fifth president of The Medical Society of the State of Pennsylvania, was born in Philadelphia in the old Northern Liberties district, June 6, 1877, the son of the late Jacob Behrend and Sarah Stamm. He attended the Boys' Central High School from which he received the degree of A.M. five years after graduation.

He was graduated from the University of Pennsylvania Medical School in 1899, having been a member of the Stille' Medical Society, a student society. He served his internship in the Philadelphia General Hospital and Jewish Hospital, Philadelphia. He was attending physician to the Jewish Hospital for seven years. Subsequently he devoted his entire time to the practice of surgery and became attending surgeon to the Jewish Hospital, Philadelphia, and later attending surgeon in the Mt. Sinai Hospital, Philadelphia, and the Philadelphia General Hospital. He is consulting surgeon to the Eagleville Sanatorium, Eagleville, Pa., and the Hebrew Home for Orphan Children, Philadelphia.

In 1926, he was elected president of The Philadelphia County Medical Society of which he had been a member of the Board of Directors for nine years. He is a former president of the Northern Medical Association and the Philadelphia Clinical Society (Northwestern Medical Society); was a member of the House of Delegates of the State Society for many years; is a life member of the Philadelphia County Medical Society; a Fellow of the College of Physicians of Philadelphia; a Fellow of the American Medical Association and of the American College of Surgeons; a member of the Philadelphia Pathological Society; the Philadelphia Pediatric Society. He is a member of the Philmont Country Club.

During the World War he served on the Draft Board and gave instruction in anatomy and surgery to the Army units assigned to the Jefferson Medical College.

His contributions to medical literature comprise about seventy papers mainly on general surgical subjects, special attention having been given to the gallbladder, much of this original work having been done in the Daniel Baugh Institute of the Jefferson Medical College. A monograph entitled "Surgical Diseases of the Gallbladder, Liver, and Pancreas and Their Treatment" was published in 1926.

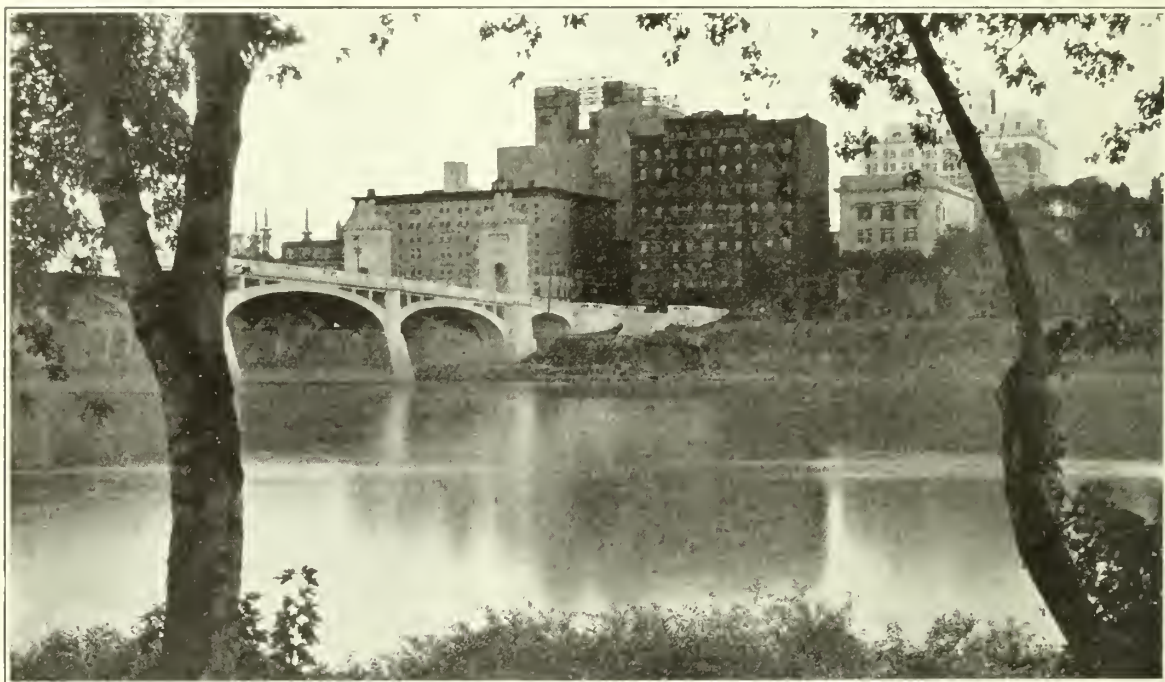
He has always been interested in the welfare of the physician. He is now Chairman of the Section of the Workmen's Compensation Committee of the Commission on Medical Economics of the Philadelphia County Medical Society; and a member *ex-officio* of the Commission on Workmen's Compensation of the State Society.

Dr. Behrend was married to Miss Clara Rosenbaum, Jan. 11, 1905. There are three children, a son Dr. Albert Behrend, now a Fellow in Surgery in the Mayo Foundation; and two daughters, the younger, Miss Jean Behrend, a well known pianist and composer. There are two grandchildren born of the elder daughter, a former student of Wellesley College and the Sorbonne, of Paris.

THE EIGHTY-FOURTH ANNUAL SESSION

Wilkes-Barre and Luzerne County welcome the eighty-fourth annual meeting of The Medical Society of the State of Pennsylvania to be held Oct. 1 to 4, 1934. Not since 1900 has the State Society been the guest of the Luzerne County Medical Society. In that year, 307 registered in attendance, and postconvention comment in the *PENNSYLVANIA MEDICAL JOURNAL* was most enthusiastic and appreciative of the great effort made by the host society.

known son in 1934, he will be found to have established himself securely during the years as a substantial citizen of his own community, his home erected, furnished completely, equipped with an endowed library of 10,000 volumes, second only to Pittsburgh and Philadelphia, and his debts paid. He will be remembered also as having always given his support to his parent, taking his part in the great scheme of organized medicine, and always ready to perform whatever duty



Courtesy Craftmen's Engravers.

Market Street Approach to Wilkes-Barre from Kirby Park

The trip to Wilkes-Barre from the West was long and dreary, delays vexatious and progress slow, but the goal once reached, the recompense was ample. Wilkes-Barre is delightfully situated, the hotels, especially the headquarters, were very satisfactory. Few cities of much larger dimensions can boast of a hotel more attractive, structurally, than the Sterling, and the table also was all a reasonable traveler could desire.

The most confusing feature of Wilkes-Barre, however, was the Public Square. To those unacquainted with the situation we would say that it represents a rectangular plot of ground with a large central building. (Since demolished.) At the four corners are given off an equal number of streets but unlike the style of other cities, they diverge at a tangent to the confusion of even those whose cerebrum was equipped with a well developed center of location.—*Pa. Med. J.* iv (Oct.), 1900.

During these 34 years, the Luzerne County Medical Society has builded well to justify itself an assured right as an integral part of the State Society. When the parent comes to visit the little

was allotted him, despite the apparent neglect of a parent who has not visited him for 30 years. No father could ask more, and many sons have done less.

THE CITY OF WILKES-BARRE

Wilkes-Barre, anthracite capital of America, metropolis of the Wyoming Valley and county seat of Luzerne County, is located in the heart of the anthracite coal fields of northeastern Pennsylvania. God endowed the valley with natural wealth equal to Midas' dreams, and blessed it with a beauty of mountain, plain, and river seldom surpassed. Man made of it a teeming center of industrial activity and cultural worth.

The year 1754 saw the first settlements established by the white men, and subsequent years



Courtesy Craftmen's Engravers.

Court House and River Common

witnessed internecine strife between Connecticut and Pennsylvania colonists. Bitter conflicts with the Indians were marked by the historic Wyoming Massacre, and ended with the nationally important expedition of General Sullivan which started from Wilkes-Barre and ended in the Indian towns of southern New York State whence the Six Nations were scattered and the alliance of the Indians and the British broken, with a nationally significant advantage to General Washington and the cause of the young republic.

In 1786, Luzerne County was incorporated and named after the then French minister at Washington. In 1769, Wilkes-Barre was founded by Major John Durkee and named after Colonel John Wilkes and Colonel Isaac Barre, staunch friends of the American Colonists in the British Parliament. In 1806, Wilkes-Barre was incorporated. In 1807, the first anthracite coal was shipped to market.

THE WYOMING VALLEY

The Wyoming Valley stretches 25 miles from Shickshinny to Pittston, is 5 miles in width, and represents the richest basin of anthracite coal in America. At the southern end of the county is Hazleton, representing the northern extremity of the southern coal field. The population of Wilkes-Barre is 86,626. Within the Wyoming Valley with Wilkes-Barre as the metropolis, are 37 homogenous and contiguous communities, giving to the area within 12½ miles of Wilkes-Barre, a population of more than 400,000.

LUZERNE COUNTY

The chief industry of Luzerne County is anthracite mining. Second are silk throw-

ing and weaving, metal working, food and tobacco manufactures. Forty-eight per cent of the nation's 723 anthracite mines are located in Luzerne County. Luzerne's 344 mines in 1933 produced 19,707,083 tons of coal, 39.8 per cent of the nation's total, almost twice as much as any other county in the entire country, leading the nearest competitive county by 8,662,036 tons. The industrial pay roll of Luzerne County in 1932 was \$73,179,400, leading the nearest competitor of 18 northeastern counties by \$24,233,611. Third in population in the State, Luzerne County ranked third in motor vehicle registrations in 1933. Bank capital, surplus and undivided profits as of Jan. 1,

1934, in Luzerne County, totaled \$43,087,000, \$21,839,000 more than any other county in the northeast. Bank deposits were \$143,703,000, exceeding any other county in the group by \$33,456,000.

Surrounded by mountains, Wilkes-Barre has unlimited resources of natural beauty affording delightful sites of suburban and country residence for both summer and winter, centering in Lake Carey, the hills of Dallas and Mt. Green-



Courtesy Craftmen's Engravers.

Along the Susquehanna River, north from Wyoming Valley

wood, Harvey's Lake, Lake Silkworth, Lake Nuangola, Glen Summit Springs, Bear Creek, Bear Lake, and the western reaches of the Poconos. From these hills is drawn an unlimited supply of the purest water testing only 28 parts of dissolved solids per million.

Radiating highways lend ready access in all directions, complementing the service of six steam and one electric railroad. National bus routes converge in Wilkes-Barre and a fully equipped flying field lies near the center of the valley within 15 minutes by automobile from the city.

Thirteen public parks in Wilkes-Barre have a combined area of 406 acres, with a valuation of \$4,950,000. There are 55 playgrounds.

Seventy-three churches testify to the importance of religious life in Wilkes-Barre. Schools number 30, including 3 high schools. Three private day schools for boys and girls are rich with years of tradition, while the Wyoming Seminary has a national reputation as a preparatory boarding school. Bucknell University Junior College was recently founded and is now well established. Physicians of the Wyoming Valley and Wilkes-Barre have long been identified with the affairs



General Hospital, Wilkes-Barre

of the several school districts. Since the organization of the Wilkes-Barre School District, there has never been a school board without a physician member.

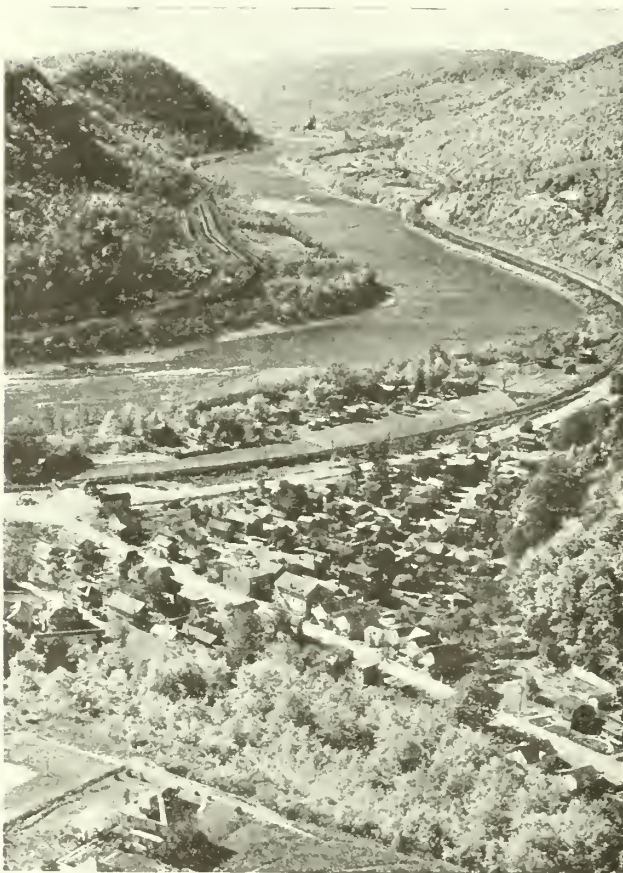
School buildings have been named for the late Drs. George W. Guthrie and William G. Weaver, who served many years on the Wilkes-Barre School Board. Drs. Charles Long, E. I. Butler, Boyd Dodson, and A. G. Fell saw many years of service. Completed in 1930, the Elmer L. Meyers High School was named in honor of Dr. E. L. Meyers, who has been an active member of the school board since 1911, three times its president. Serving at present with Dr. Meyers, are Drs. William A. Weaver and A. C.

Trapold, Jr. On the Edwardsville Board sits Dr. A. J. Valibus. In Nanticoke City Drs. J. H. Beckley, L. C. Rummage, and J. A. Norstedt are directors; in Freeland the late Dr. T. H. Mays was an incumbent. Other physician members at present of various school boards in the county are: G. K. Swartz, Dallas; L. L. Rogers, Jr., Kingston; C. C. Groblewski, Plymouth; F. B. Kleintob and R. H. Stroh, Wyoming.

It is probable that the medical influence was of distinct benefit in Wilkes-Barre, for medical inspection in the public schools was inaugurated among the first of the communities of the State. It is today a model system. Conservative medical influence has prompted the Wilkes-Barre School district to follow the pay-as-you-go policy, resulting in the lowest bonded indebtedness of any second-class school district in Pennsylvania, at present \$684,000, with a property tax levy of 16½ mills. Three high school buildings have been erected and paid for, with two stadia, providing for a combined enrollment of 5775.

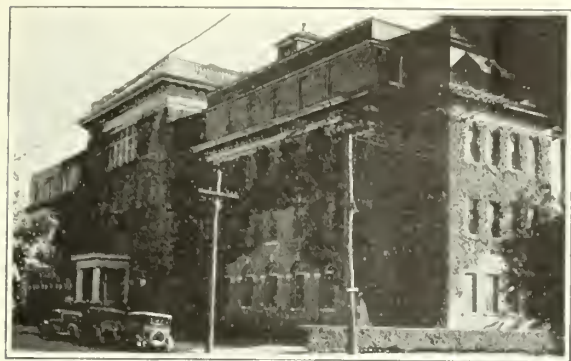
THE HOSPITALS OF LUZERNE COUNTY

A description of the hospitals of Luzerne County covers those institutions in the cities of Pittston, Nanticoke, and



Courtesy Craftmen's Engravers.

Along the Susquehanna River, south from Wyoming Valley



Mercy Hospital, Wilkes-Barre

Wilkes-Barre, and the Borough of Kingston, all centered in the Wyoming Valley, together with the State Hospital in Hazleton and the County Hospital at Retreat.

Established in 1893 the Pittston Hospital now has a capacity of 120 beds. The handsome new building was erected in 1927. The training school with a present enrollment of 44 was established in 1903.

In the Borough of Kingston is situated the Nesbitt Memorial Hospital, incorporated in 1912, first established in the old Meyers mansion. In 1929, the handsome new building, gift of the late Abram Nesbitt and his family, replaced the old frame structure. This structure provides 130 beds. The training school was established in 1912 and now has 34 student nurses.



Nesbitt Memorial Hospital, Kingston

The Nanticoke State Hospital was opened in 1909, the training school established in 1914, with a present enrollment of 50. The hospital provides 130 beds.

In the City of Wilkes-Barre are the Homeopathic Hospital, the Mercy Hospital, and the Wilkes-Barre General Hospital. The Homeopathic Hospital was established in 1911, and the training school established the same year. At present 32 students are enrolled. The present building was erected in 1923, with an addition in 1927, giving a total accommodation of 86 beds.

The Mercy Hospital with a present capacity of 220 beds, was opened in 1898. In 1908 the administration building was built. An additional wing and nurses' home were erected in 1928. The training school was established in 1898.

The Wilkes-Barre General Hospital was established in 1872, first occupying a rented building on Fell Street below South. The first of the present buildings was erected in 1893. The private patient building was erected in 1915, and an 8-story ward building in 1927. In 1932 the Taylor Memorial Nurses' Home was erected. Student enrollment is 127, and the bed capacity of the hospital 407.

The Retreat Mental Hospital has a capacity of 1000 beds. Opened in 1900 it is situated south of the Wyoming Valley at Retreat, under the jurisdiction of the Central Poor District.

The Hazleton State Hospital was established in 1889, the training school in 1908. Student enrollment is 50, the capacity of the hospital, 155 beds.

The Angeline Kirby Memorial Health Center, constructed and endowed by Fred Morgan Kirby in memory of his mother, at a cost of two million dollars, unique in Pennsylvania, furnishes unparalleled facilities for centralized health and welfare activities in Wilkes-Barre. Offices are provided for different welfare agencies, for State clinics, mental and tuberculosis clinics as well as for the laboratory and administrative activities of the Wilkes-Barre Board of Health.

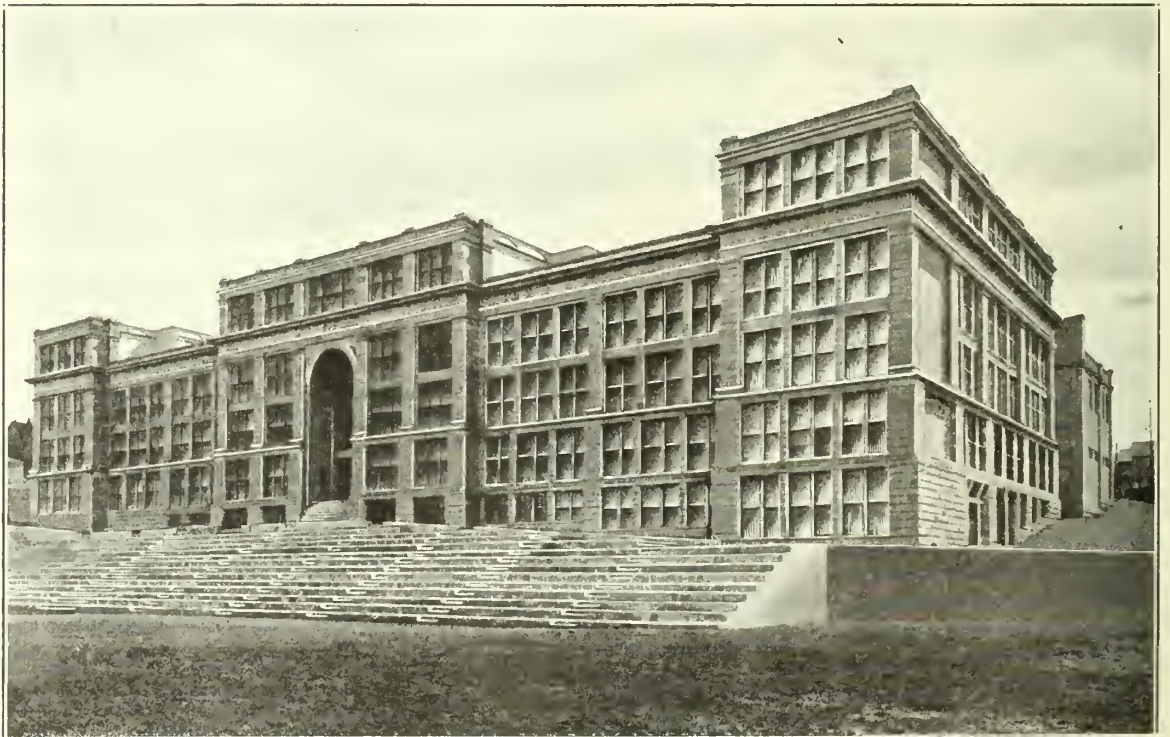


Pittston Hospital



Courtesy Craftmen's Engravers.

Angeline Kirby Memorial Health Center



G. A. R. High School for Girls, Wilkes-Barre



Luzerne County Medical Society Building

THE LUZERNE COUNTY MEDICAL SOCIETY

At the time of the founding of the Society in 1861, Luzerne County embraced what is now Lackawanna County. Until 1878, meetings were held in turn in Wilkes-Barre, Pittston, and Scranton. About 1890 the Library was established through the individual efforts of the late Dr. Lewis H. Taylor, who continued as librarian until his death in 1928. The Library at present includes 10,000 volumes, has an endowment of \$33,000, and was one of the charter members of the Medical Library Association.

The County Society building was erected in 1914, and is without debt. It provides an auditorium, committee rooms, stack room, reading room, and basement storage.

The Transactions of the Luzerne County Medical Society were published annually from 1886 until 1929, when publication was suspended in favor of the revival of the County Society Bulletin.

In 1920 the Hazleton Branch was established, and has a membership of 47. The total membership of the Luzerne County Medical Society is 315. The Woman's Auxiliary was founded in 1932, and has 190 members.

Three members of the Luzerne County Medical Society have served as president of The Medical Society of the State of Pennsylvania: Reese Davis in 1886, George W. Guthrie in 1899, Lewis H. Taylor in 1913.

Wilkes-Barre has been host to the State Society twice previously. In 1866, 69 registered; in 1900, 307 registered. The 1900 meeting was the first meeting of the State Society to be held in the fall of the year.

HOTELS IN WILKES-BARRE

Hotel headquarters will be in the Mallow-Sterling at River and Market Streets, having a capacity of 350 rooms. Immediately adjacent to the Union Station on East Market Street is the Redington of 200 rooms, and on the same street



Courtesy Craftmen's Engravers.

Hotel Mallow-Sterling, Hotel Headquarters

intersection, the Terminal, 52 rooms, and the Hart, 55 rooms. Within the block south on Pennsylvania Avenue are the Windsor, 45 rooms, and the Lennox, 60 rooms. On the Public Square is located the Fort Durkee, 35 rooms; on North Main Street, the Farrington, 40 rooms; and on South Main Street, the Poland, 35 rooms.

The recently constructed Altamont Hotel in Hazleton offers 168 rooms, all with bath. Only 22 miles from Wilkes-Barre, Hazleton is ordinarily within easy driving reach by direct concrete highway. Highway improvements at the entrance to the Valley, however, have necessitated diversion of traffic by two detours, making the driving time about an hour. Of the two detours, the one by way of Rita, Glen Summit, and the East End Boulevard is recommended. It will be entirely feasible to register at the Altamont and commute by automobile.



The Westmoreland Club

AUTOMOBILE ROUTES

From the northeast, approach by routes 11 and 6 through Scranton, thence by route 309 to Wilkes-Barre; from the east, leave route 611 at Swiftwater, thence by route 115 to Wilkes-Barre; from the southeast from Allentown by route 29 through Tamaqua and Hazleton. West

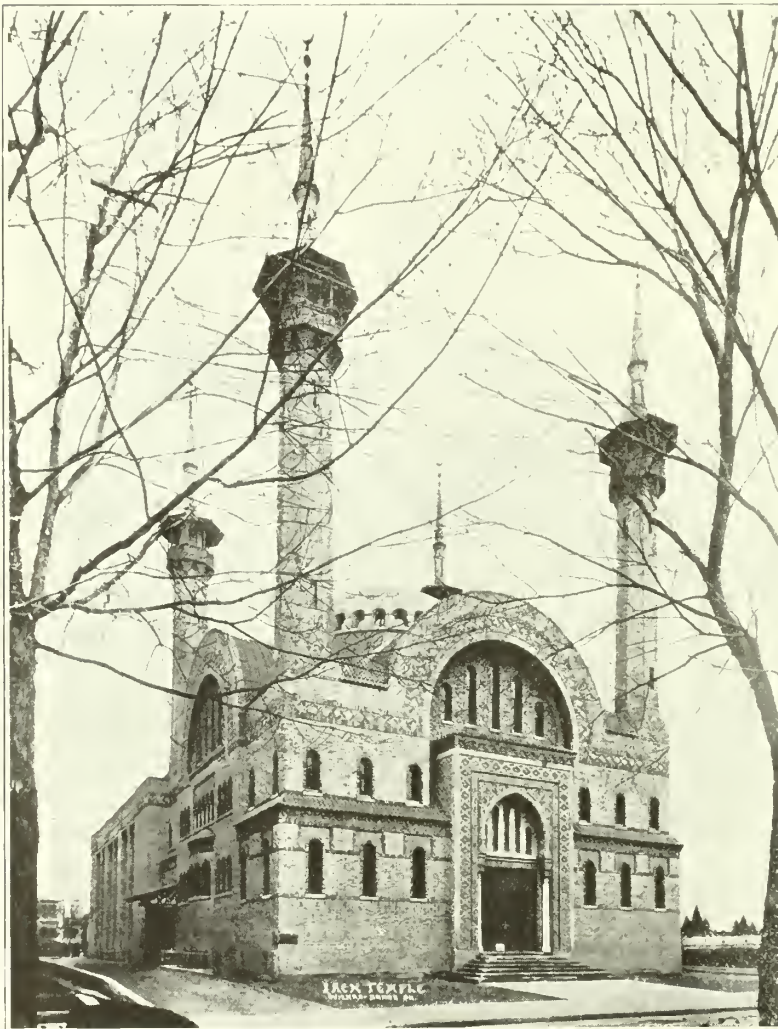
of Hazleton detour at Nescopeck Pass through Nuangola over the Newport Mountain to Alden, thence to Wilkes-Barre. The alternative detour is to continue on route 309 to Rita, thence to Glen Summit and by Crystal Lake to Laurel Run and back to route 309, or from Crystal Lake to route 115, the East End Boulevard, and so to Wilkes-Barre.

From Philadelphia several excellent direct routes are offered, 611, 309, or 422; from Harrisburg, directly up the river by route 11. From the west numerous highways feed into route 11 whence the Appalachian Scenic Highway follows the Susquehanna River north to Wilkes-Barre.

From the northwest by route 6, the motorist enjoys the most beautiful of all the approaches to the Wyoming Valley. The Roosevelt Trail is left at Osterhout and one follows down the Susquehanna River on route 309.

THE IREM TEMPLE

Convention headquarters will be in the Irem Temple on North Franklin Street.



The Irem Temple, Headquarters



Nanticoke State Hospital

Register immediately on arrival. The technical exhibit will occupy the ground floor in a spacious, symmetrical, unified area in which excellent facilities will be offered for comfortable observation of the commercial display. Space will be provided at either end of this floor for the scientific exhibit. The record-making variety of scientific exhibits this year cannot be shown under one roof. The facilities of the Kirby Health Center, across the street, will be used for overflow exhibits, notably the fracture and coprological exhibits.

The House of Delegates and General Meetings will be housed in the Irem Temple, the several section meetings in the Health Center, the Hotel Mallow-Sterling, the Elks' Club, and the Y. W. C. A. Building, all within the same city block.

The Westmoreland Club, Knights of Columbus, and Elks' Club will be open to visitors at the convention. Those driving in for the day will do well to utilize the lounges and restaurants of these Clubs. The registration button will be recognized in lieu of guest cards.

ENTERTAINMENT

The entertainment will be of the usual high standard. The chairman of the local committee is Charles L. Shafer, 219 N. College Avenue, Kingston. Physicians and exhibitors will be the guests of the Luzerne County Medical Society on Tuesday evening at dinner. The postprandial entertainment is a dark secret, but to miss it will be to miss one of the high lights of the week.

Alumni smokers are scheduled for 6 o'clock on Wednesday evening. The University of Pennsylvania alumni will hold their smoker at the Westmoreland Club; the Jefferson alumni, at the Mallow-Sterling Hotel; Temple alumni, at the Elks' Club. Announcement of other places

of meeting will be had at the Registration Bureau, where tickets will also be secured. The Public Meeting follows at 8 o'clock, and the evening's activities are to be climaxed with the President's reception and ball.

On Wednesday, at 12:30 p. m., the Wilkes-Barre General Hospital will be the host at a luncheon for the past resident interns.

A feature this year is the proposed luncheon for exhibitors to be given by the local committee on scientific exhibit, A. L. Luchi, chairman. It is hoped also that the example set last year by Philadelphia may be emulated, and that the lowly county society editors will foregather at luncheon to forget their grievances.

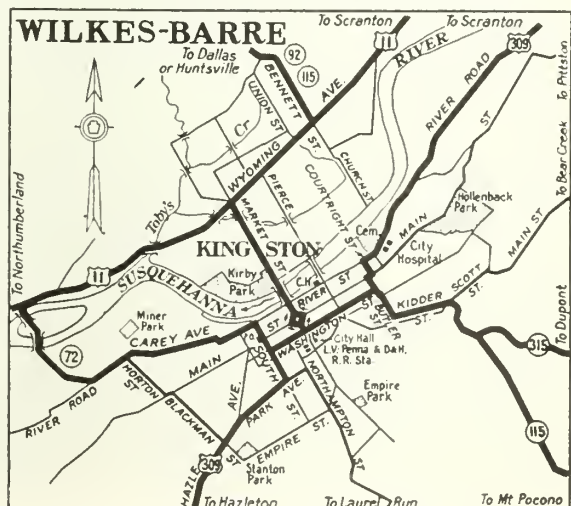
THE GOLF TOURNAMENT

The annual golf tournament will be played at the Fox Hills Country Club, West Pittston, Monday afternoon. Buses will leave the Mallow-Sterling Hotel at scheduled intervals and this transportation is to be included in the fee for the tournament.

Play will commence at 1 p. m. The golf dinner will follow at the same club and return transportation be provided by bus. The chairman of the local committee is Thomas R. Gagon, 23 Broad Street, Pittston, to whom inquiries should be addressed and from whom entry blanks can be obtained. The Wyoming Valley Country Club will be open to guests at the convention on payment of the usual green fees.



Fox Hills Country Club, Pittston, at which the annual golf tournament will be held



Map of Highways entering Wilkes-Barre

WILKES-BARRE HOTELS

NAME OF HOTEL AND ADDRESS	SINGLE		DOUBLE		No. of Rooms	
	With Bath	Without Bath	With Bath	Without Bath	With Bath	Without Bath
Mallow-Sterling Cor. Market and River	2.50-\$3.50	\$1.50-\$3.00	\$4.00-\$5.00	\$2.50-\$4.00	250	100
Redington 83 E. Market St.	2.50- 3.00	1.50- 2.00	3.50- 5.00	2.50- 3.50	100	100
Fort Durkee 60 Public Square	2.50- 3.00	1.50	3.00- 4.00	2.00- 2.50	10	25
Poland 35 S. Main St.	2.50	1.50	3.50	2.50	10	25
Terminal 81 E. Market St.	2.50	1.50	4.00	2.50	14	38
Hart 76 E. Market St.	2.50	1.50	3.50- 4.00	2.50	10	45
Farrington 45 N. Main St.	....	1.50	....	2.50	40	..
Lennox 71 S. Pennsylvania Ave.	1.75	1.25	3.00	2.00	20	40
Windsor 51 S. Pennsylvania Ave.	2.00	1.25	2.50	2.00	6	39

HAZLETON

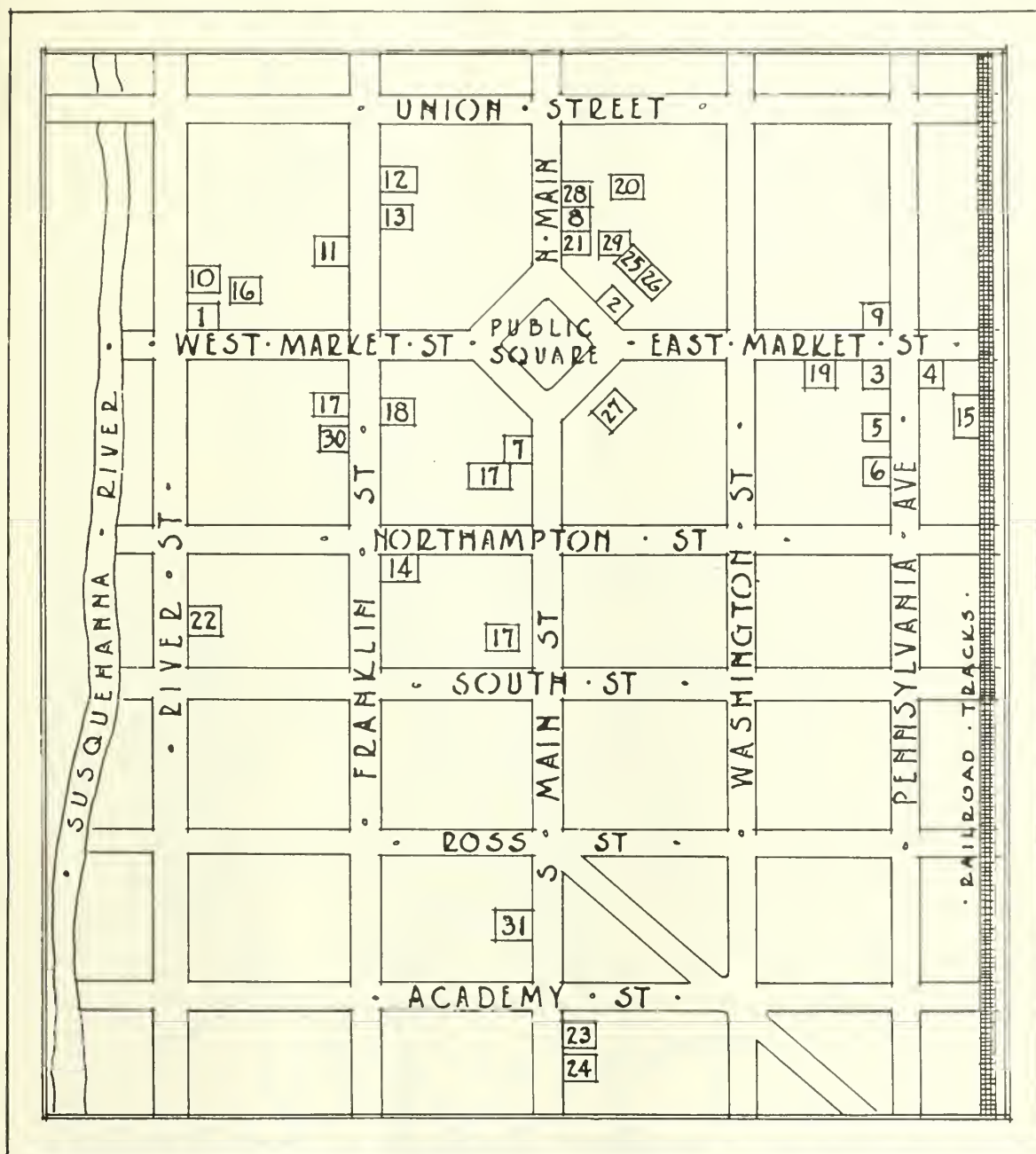
Altamont Broad and Church Sts.	\$3.00-\$4.00	\$5.00-\$6.00	All with Bath
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Reservations for hotel accommodations should be made early. Applications should be addressed

to the chairman of the local Hotel Committee, M. Clark Johnson, 567 Wyoming Ave., Kingston.



Aerial View of Wilkes-Barre

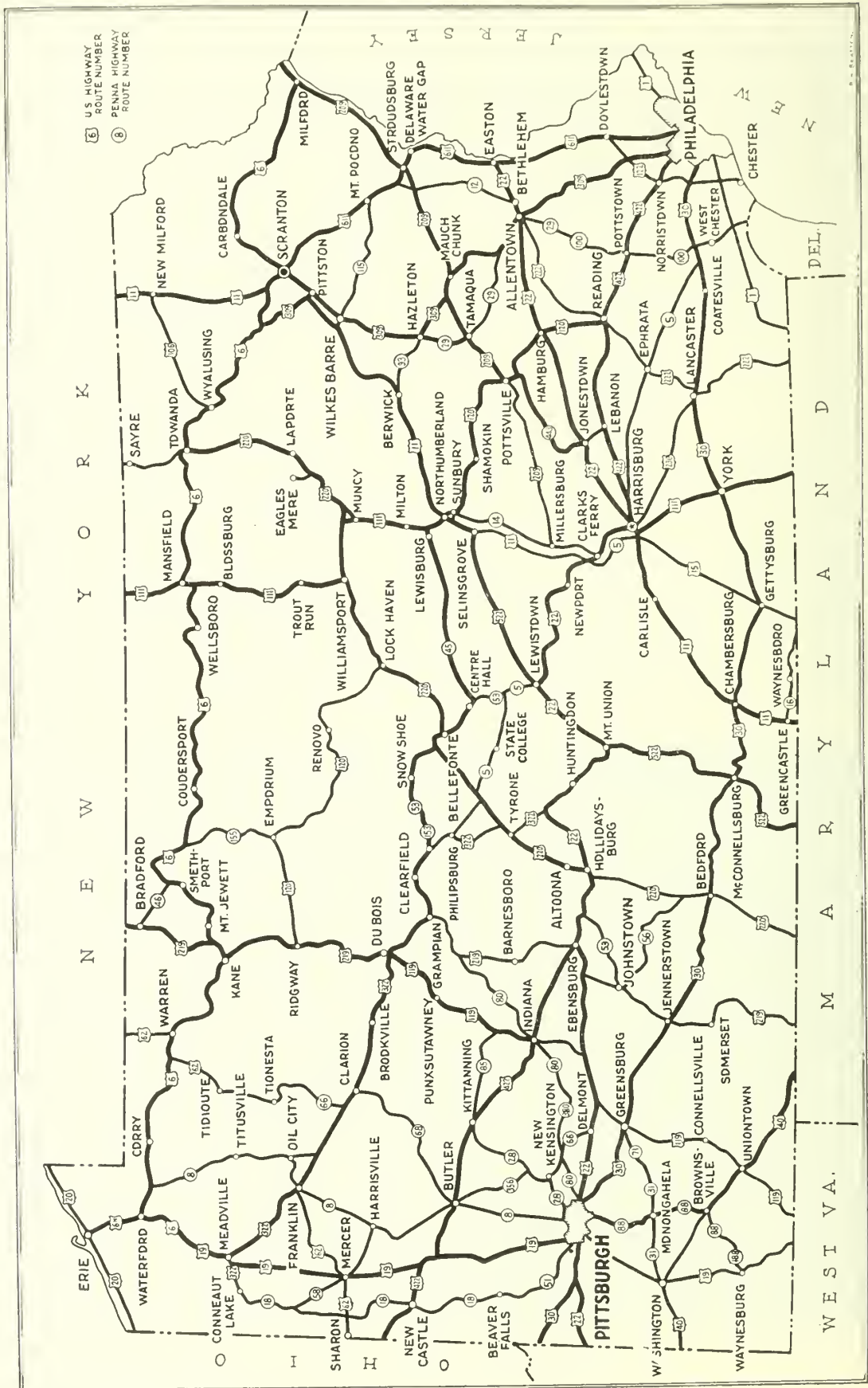


MAP OF CENTER SECTION OF WILKES-BARRE

showing location of the hotels, the exhibition buildings, and the central city garages. The garages and parking stations will accommodate 2000 cars. Prices range from \$0.25 for 24-hour parking outside; to \$0.75 for 24-hour parking inside, the latter including delivery service to hotels.

KEY TO MAP

- | | | |
|--------------------------|---------------------------------|-----------------------------------|
| 1. Hotel Mallow-Sterling | 12. Kirby Health Center | 23. Ace Garage |
| 2. Fort Durkee Hotel | 13. Y. W. C. A. Building | 24. Sheldon Spring Service |
| 3. Redington Hotel | 14. Y. M. C. A. Building | 25. Hughes Capital Garage |
| 4. Terminal Hotel | 15. Union Station | 26. Central Parking Station |
| 5. Windsor Hotel | 16. Sterling Station | 27. Yordy, E. B., Parking Station |
| 6. Lennox Hotel | 17. Brown's Parking Station | 28. Main Service Station |
| 7. Poland Hotel | 18. Y. M. C. A. Parking Station | 29. Morgan's Parking Station |
| 8. Farrington Hotel | 19. Central Garage | 30. Westmoreland Club |
| 9. Hart Hotel | 20. Pierce-Arrow Garage | 31. Armory. |
| 10. Elks' Home | 21. Posten Transfer Co. | |
| 11. Irem Temple | 22. Almo Garage | |



ROAD MAP OF PENNSYLVANIA

PREVIEW OF THE SCIENTIFIC PROGRAM

The program for the Wilkes-Barre Session on October 2, 3, and 4 has been published in the August issue of the JOURNAL. In assembling this program, the Committee on Scientific Work was guided by the principle, "The Greatest Good for the Greatest Number." The general practitioner will therefore find an abundance of interesting, practical, and timely subjects that will amply reward his journey to Wilkes-Barre. The Committee has avoided joint sessions of different sections as well as protracted symposia on restricted topics, so that the total number of papers and the diversity of subjects shall be as great as possible. Speakers have been selected both with a view to their sound knowledge and experience in the field and their ability to present this knowledge. With equal care there has been chosen for each presentation a discussor who shall give a sound carefully prepared opinion, based on a study of the paper in advance of the meeting. The scientific exhibits in many instances illustrate the topics discussed in the meetings and afford an opportunity for leisurely study and amplification of the subject. Read your program carefully; note the day, hour, and place of presentations which are of especial interest to you; plan an interesting, profitable, and enjoyable session for yourself *right now!*

The opening General Session takes place on Tuesday morning, October 2, at 10 o'clock. This session more than any other deserves to be called

"General," for it is the only one in which all aspects of activity of the State Society are concerned: scientific, executive, legislative, and Woman's Auxiliary. The order of business will be the Call to Order by President Guthrie; the Report of the Committee on Necrology by Dr. Robert G. Barckley; Addresses of Welcome by the Hon. Charles N. Loveland, mayor of Wilkes-Barre, and Dr. Edward W. Bixby, president of the Luzerne County Medical Society; presentation of the Scientific Program by Dr. Richard A. Kern; announcement of the Scientific Exhibit by Dr. Angelo L. Luchi, and announcement of entertainments by Dr. Peter P. Maycock. Then follows the chief feature of this session: The installation of the new president, Dr. Moses Behrend, and his delivery of the President's Address.

The second General Session opens at 9 a. m. on Wednesday, October 3, and like the third General Session is devoted exclusively to a scientific program. The opening presentation is by Dr. Isaac Starr, Jr., who will discuss conservative measures in the treatment of vascular spasm in diseases of the pe-

ripheral vessels. Last year Dr. Henry K. Pancoast gave an interesting résumé of the development of roentgen-ray diagnosis; this year Dr. Eugene P. Pendergrass will tell of the development of roentgen and radium therapy. Dr. John M. Johnston will discuss the value of therapeutic measures in pneumococcus pneumonia. The next subject is one of perennial interest to all physicians: Middle ear suppuration in relation to the

THE GUEST SPEAKERS

General Sessions

Frederick C. Holden, M.D., a native of Tremont, Maine, received his medical degree from New York University in 1892. In New York City he successively became an intern (1892-1894) and assistant attending surgeon (1896) in St. Mary's Hospital; assistant gynecologist (1902), Williamsburg Hospital; assistant attending obstetrician (1905), and attending obstetrician (1910), Methodist Episcopal Hospital; associate attending obstetrician and gynecologist (1910), Long Island College Hospital; obstetrician and gynecologist-in-chief (1915), Greenpoint Hospital; clinical professor of obstetrics and gynecology (1918), Long Island College Hospital; professor of gynecology (1918), New York University and Bellevue Hospital Medical College. He is director of the Department of Gynecology, Bellevue Hospital; chief obstetrician and gynecologist, Brownsville and East New York Hospital. A member of numerous medical organizations, he is past-president of the Kings County Medical Society and of the Brooklyn Gynecological Society, former vice-president of the New York Obstetrical Society and of the American Gynecological Association. He has made numerous contributions to the literature on gynecologic and obstetric subjects.

Dr. Holden will speak on the subject, "Why Women Die in Childbirth; Some of the Reasons and Remedies," before the General Meeting on October 3.

George W. McCoy, M.D., was born in Cumberland Valley, Pa. He was graduated from the School of Medicine of the University of Pennsylvania in 1898. He entered the U. S. Public Health Service in 1900, and has served successively in the rank of assistant surgeon, passed assistant surgeon, surgeon, and medical director. His career in the service has been a distinguished one, including such assignments as director of the U. S. Plague Laboratory, San Francisco (1908-11); U. S. Leprosy Investigation Station, Hawaii (1911-15); and since 1915, the Hygienic Laboratory, Washington, D. C., later called the National Institute of Health, of which he is now the director. He has served on the National Board of Medical Examiners; the Revision Committee on Biological Products, for the U. S. Pharmacopoeia; the Bureau for the Protection of Medical Research. He has made numerous and important contributions to medicine, noteworthy among which are the discovery of the disease tularemia and the isolation of its cause. He was the recipient of the Sedgwick Memorial Medal in 1931. A member of various medical organizations, he was chairman in 1919 of the Section on Pharmacology and Therapeutics of the American Medical Association.

Dr. McCoy will speak on the subject, "Research Work of the National Institute of Health," before the General Meeting on October 4.

Section on Medicine

C. Macfie Campbell, M.D., professor of psychiatry of Harvard Medical School for the past 14 years, received his early education in Scotland. After a number of years of study in France, Germany, and England, Dr. Campbell first came to this country to work in the field of psychiatry in 1904. His brilliant work as instructor of psychiatry in Cornell University School of Medicine and associate professor of psychiatry at Johns Hop-

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practice of medicine; it will be presented by Dr. George M. Coates. Dr. Roy Ross Snowden will speak on a topic of great practical importance, but largely neglected in textbooks and scientific programs: The medical care of the aged. Dr. Floyd E. Keene will give his observations, based on a study of over 2000 cases, on the interpretation of irregular genital bleeding during the menopause. For the first time in over 5 years there will be a guest speaker before a General Session who is neither an internist nor a general surgeon. It was our good fortune to obtain for our program Dr. Frederick C. Holden of New York City, eminent gynecologist and obstetrician, who will speak on the subject, "Why Women Die in Childbirth—Some of the Reasons and Remedies."

The third General Session, Thursday at 9:15 a. m., will begin with a paper by Dr. Burgess Lee Gordon, Jr., on the diagnosis and treatment of nontuberculous pulmonary diseases. Dr. James M. Strang will report his observations on the metabolism and treatment of under-nutrition. The important subject of the treatment of angina pectoris will be presented by Dr. Charles C. Wolferth. An interesting phase of physiologic research will be presented by Dr. Detlev W. Bronk, who will describe the results of applying certain electrical methods in studying the nervous mechanisms underlying hypertension and the control of blood pressure. The psychiatric problems involved in the management of convalescent children will be discussed by Dr. Earl D. Bond, on the basis of

200 cases of children studied for admission to a school because of behavior difficulties. Dr. John O. Bower, Chairman of the Committee on Appendicitis Mortality, will give a 10-minute report of the further activities and recommendations of that committee. The guest speaker of this session is Dr. George W. McCoy, distinguished member of the United States Public Health Service and Director of the National Institute of Health, who will review certain of the studies of disease carried out by that institution in recent years.

The Section on Medicine will have sessions on the afternoons of Tuesday, Wednesday, and Thursday, October 2, 3, and 4. The Tuesday afternoon meeting will begin with a paper by Dr. George Morris Piersol and Dr. Walter Karron: "Biochemistry in Clinical Medicine, from the Standpoint of the General Practitioner," with particular emphasis on the problem presented by patients who as a result of persistent vomiting suffer from dehydration, chloride loss, and nitrogen retention. The guest speaker of the afternoon, Dr. C. Macfie Campbell of Boston,

Mass., will present the subject, psychiatry from the standpoint of the general practitioner. The general practitioner sees patients in the early stages of mental disorders, after the recovery from these disorders, and in their chronic stages. The paper should therefore have a wide appeal. Dr. Eugene M. Landis will speak on the treatment of advanced peripheral vascular disease by means of alternate negative and positive pres-

THE GUEST SPEAKERS

Section on Medicine

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kins Hospital, Baltimore, resulted in a call to the chair of professor of psychiatry at Harvard in 1920. From that time he has also acted as medical director of the Boston Psychopathic Hospital.

Dr. Campbell has a most delightful sense of humor and presents his subjects in a most entertaining manner. He has received the richly deserved honor of presenting the Gehrman Lectures on Mental Hygiene at the University of Illinois in 1932; the Lowell Lectures on Human Personality and the Environment, at Boston in 1933; and the Salmon Memorial Lectures on Psychiatry at New York in 1934.

Dr. Campbell is probably the most sought-after speaker in the field of psychiatry in this country, and The Medical Society of the State of Pennsylvania feels greatly honored that he has accepted its invitation to speak before the annual meeting.

Herrmann L. Blumgart, M.D., associate professor of medicine in the Harvard School of Medicine and director of medical research at the Beth Israel Hospital, Boston, has been for many years an outstanding investigator in the field of cardiovascular physiologic and clinical research. Following a brilliant career at Harvard University School of Medicine, Dr. Blumgart received excellent preparation through the Mosely Traveling Fellowship of Harvard Medical School while working in London and Europe in 1923. His method of estimating the rate of blood flow by the use of radium emanation and the publication of the results of his studies on the circulation, using this method, between 1925 and 1928, were his first brilliant contributions in his chosen field of investigation. Recently additional original contributions to medicine have been his studies on the therapeutic effect of total ablation of the normal thyroid in congestive heart failure and angina pectoris. This operative procedure appears to offer a valuable addition to cardiovascular therapeutics.

Among the numerous honorary societies of which Dr. Blumgart is a member may be mentioned the American Society for Clinical Investigation; the American Physiological Society; and the Association of American Physicians.

Dr. Blumgart is noted for presenting the results of his work in a clear and easily understandable manner. The physicians of Pennsylvania may consider themselves fortunate in having this opportunity of hearing, at first hand, the more recent results of Dr. Blumgart's investigations.

Section on Surgery

Jerome P. Webster, M.D., of New York City, will be the guest speaker before the Section on Surgery, Tuesday, Oct. 2, 1934, at 3:00 n. m. The subject selected is: "Deforming Scars: Causes, Prevention, and Treatment," with lantern slide demonstrations.

Dr. Webster was very active during the World War in the various battle sections and was decorated for distinguished service by the British and French Governments. From 1921 to 1926, inclusive, he was connected with the Peking Union Medical College, being associate professor of surgery during the past few years, receiving the order of Cha K'o Chang, Wu Teng, from the Chinese Government for his excellent service.

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sure. The concluding papers of the session are a case report by Dr. Walter K. Baer, Dr. Roland N. Klemmer, and Miss Lena A. Lewis of a case of infection of the lung with actinomyces graminis and a report by Dr. Joseph S. Brown of three cases of low blood calcium followed over a number of years.

The Wednesday afternoon session will begin with a paper on the use of dinitro compounds in weight reduction (Drs. E. L. Bortz and Anthony Sidoni, Miss E. M. Hobson) and the results of irradiation in the treatment of hyperthyroidism (Dr. James J. Quiney). The guest speaker, Dr. Hermann L. Blumgart of Boston, Mass., will present the interesting topic, the clinical management of patients before and after total thyroidectomy for chronic heart disease. Then follow papers on the simulation of hyperthyroidism by hypertension (Drs. Ronald L. Hamilton and Albert P. Knight), venous pressure (Dr. William G. Leaman, Jr.), and the pre-eclamptic woman (Dr. Frederick B. Utley).

The Thursday afternoon session, which will begin at 1:30 instead of 2 o'clock, will include a presentation by Dr. George J. Castlin on further observations in granulocytopenia; a discussion by Dr. Sydney J. Haley of arthritis of the spine. Dr. John A. Kolmer will speak on the diagnosis and modern treatment of amebiasis, a topic that in view of the recent widespread occurrence of this disease in our latitude should merit general interest. The concluding paper is by Dr. Robert Denison on a summary of pres-

ent-day endocrinology for the practitioner.

The Section on Surgery will meet on the afternoons of Tuesday, Wednesday, and Thursday. The Tuesday meeting will include papers on the management of occiput posterior position (Dr. R. E. Nicodemus), ectopic pregnancy (Dr. D. B. Ludwig), the treatment of hemorrhoids (Dr. Martin Kleckner), neoplastic erosion of bone near the internal auditory canal (Dr. Wilbur

Bailey and Dr. Nicholas Gotten), the indications for blood transfusion (Dr. A. P. Parker). The guest speaker of this session is Dr. Jerome P. Webster of New York City, who will discuss "Deforming Scars: Causes, Prevention and Treatment."

The Wednesday program includes: An analysis of 2700 cases of appendicitis (Dr. Holland H. Donaldson); indications for and technic of enterostomy (Dr. George W. Hawk), the pre- and postoperative care of the jaundiced patient (Dr. Hubley R. Owen), the surgical treatment of pharyngeal diverticulum (Dr. Thomas A. Shallow), early diagnosis and localization of spinal cord tumor (Dr. Temple S. Fay). The guest speaker of the aft-

ernoon is Dr. J. Shelton Horsley, distinguished surgeon of Richmond, Va., who will discuss the diagnosis and treatment of cancer of the large bowel.

The Thursday session will include the only symposium of the whole meeting, a discussion of various types of fractures, to be presented by Drs. Voigt Mooney, Thomas A. Outland, Grover C. Weil, Samuel P. Mengel, John Howorth, and

THE GUEST SPEAKERS

Section on Surgery

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J. Shelton Horsley, M.D., of Richmond, Virginia, will be the guest speaker before the Section on Surgery, Wednesday, Oct. 3, 1934, at 3:00 p. m. He has selected as his subject: "The Diagnosis and Treatment of Cancer of the Large Bowel," supplemented by lantern slide demonstration.

It is superfluous to portray the many accomplishments of Dr. Horsley's activities in the field of surgery. Early in his professional life he was associated with Dr. John A. Wyeth, of New York. His individual activities as a teacher, professor of surgery in the Medical College of Virginia, and author of many contributions of surgery of the blood vessels and operative surgery are well known. As a member of local and national medical and surgical societies, his presence has always been a signal for progressiveness.

Section on Eye, Ear, Nose, and Throat Diseases

Charles N. Spratt, M.D., is a native of Minnesota. He was graduated from the University of Minnesota in the class of 1897. He entered Johns Hopkins Hospital the same year, and graduated with the class of 1901. He served as resident house officer in surgery under Halstead and Cushing. In 1902, he was appointed house officer in otology in the New York Eye and Ear Infirmary.

From 1903 to 1905, he was house officer in ophthalmology at the Massachusetts Charity Eye and Ear Infirmary. After returning to Minneapolis in 1905, he entered the private practice of ophthalmology and otology. For a number of years he conducted an operative clinic at the University of Minnesota.

William F. Mullin, M.D., was born in Iowa City, Iowa, Feb. 14, 1884, and attended State University of Iowa. He graduated in 1908 from Gross Medical College of University of Denver; and interned in St. Joseph's Hospital, Denver. He started general practice in southern Colorado; took up specialty of ear, nose, and throat diseases in 1912 in Colorado Springs, Colorado. During 1914, he did postgraduate work in otolaryngology in Berlin.

He moved from Colorado Springs, Colorado, to Cleveland, in 1926. Became associated with the Cleveland Clinic as head of the Department of Otolaryngology.

Dr. Mullin is past secretary and chairman of the section of Laryngology, Rhinology, and Otology of the American Medical Association; former treasurer and present secretary of the American Laryngological Association; secretary for instruction of the American Academy of Ophthalmology and Otolaryngology, and member of the American Board of Examiners in Otolaryngology. He is the author of many articles on otolaryngology.

Section on Pediatrics

I. Newton Kugelmass, M.D., was born and educated in New York City. After receiving his first academic degree he taught physical chemistry in the College of the City of New York and in Columbia University. He was with the United States Food Administration and the Chemical Warfare as professor of chemistry in Birmingham. Upon completing work for the degree of Ph.D. at Johns Hopkins University, he served as exchange

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Arthur G. Davis. This should be an unusually interesting group of presentations of an ever important topic.

The Section on Eye, Ear, Nose, and Throat Diseases will meet on Tuesday, Wednesday, and Thursday afternoons. The Tuesday session is devoted to diseases of the eye and includes papers on lightning and electric cataract (Dr. Joseph V. Comole); the preoperative care of cataract patients (Dr. Hunter H. Turner); electrocoagulation for retinal detachment (Dr. Luther C. Peter); results in detachment of the retina (Drs. Benjamin F. Baer, Jr., and James S. Shipman). The guest speaker of the session is Dr. Charles N. Spratt of Minneapolis, Minn., who will discuss Glaucoma: The Results in sclerecto-iridodialysis.

The Wednesday session is given over to ear, nose, and throat topics, with papers on acute epidemic sore throat (Dr. Reid Nebinger); influenza frontal sinusitis complicated by meningo-encephalitis (Dr. Philip S. Stout); facial paralysis from acute middle ear disease (Dr. Henry Dintenfuss); minor conditions affecting the ear, nose, and throat (Dr. John R. Simpson); the treatment of chronic suppurative otitis media (Dr. Kenneth M. Day); infection following mandibular injections (Dr. J. Merle Russell); the treatment of antral disease (Dr. Wesley L. Allison). The guest speaker of the session is Dr. William V. Mullen of Cleveland, Ohio, whose subject is the blood in otolaryngology.

The concluding session on Thursday after-

noon is again devoted to diseases of the eye. The presentations include papers on the etiology of episcleritis (Dr. J. Milton Griscom); secondary glaucoma (Dr. Charles E. G. Shannon); the use of Pregl's solution in the treatment of various ocular conditions (Drs. Alfred Cowan and James S. Jordan); the importance of correcting muscular imbalance in the relief of asthenopia (Dr. Leighton F. Appleman).

The Section on Pediatrics will meet on Tuesday, Wednesday, and Thursday afternoons. On Tuesday, after a clinic by the Luzerne-Lackawanna Pediatric Society in the Wilkes-Barre General Hospital, there will be papers on the management of diabetes mellitus in children (Dr. John A. O'Donnell), appendicitis in children (Dr. Edward L. Bauer), and overwhelming acute respiratory infections (Dr. Edward S. Thorpe).

The Wednesday program includes a report of two cases of brain tumor (Dr. Robert A. Knox), papers on the relative prognostic value of Schilling and filament blood counts in acute infections (Drs. Ralph M. Tyson, Frank W. Konzelmann, George Wolfe); the sig-

nificance of the intelligence quotient (Dr. Baldwin L. Keyes); enuresis (Dr. Max R. Goldman); a case of mastoidectomy complicated by acute hemorrhagic nephritis (Dr. Robert K. Rewalt); initial weight loss in the newborn (Dr. John D. Donnelly); the management of underweight children (Dr. G. Julius Feldstein); the early diagnosis of respiratory tract allergy (Dr. J. Alexander Clark, Jr.). The guest speaker of the

THE GUEST SPEAKERS

Section on Pediatrics

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scholar to the University of Brussels in Bordet's laboratory. For his work on the physicochemical mechanism of bloodclotting he was awarded the special Sc.D. in physiologic sciences. His medical training was completed at Yale University as research associate in pediatrics. Since 1925 he has been engaged in the practice of pediatrics in New York City, continuing biochemical research applicable to his specialty.

Dr. Kugelmass organized the Heckscher Institute, and the Pediatric Research Department at the Fifth Avenue Hospital. He is pediatrician to the Fifth Avenue, the French, and the Broad Street Hospitals, and consultant to suburban hospitals.

Dr. Kugelmass has made numerous contributions to the literature.

Arthur Frederick Abt, M.D., was born in 1898, received his bachelor's degree at the University of Chicago in 1918. He spent two successive summers in the study of embryology and zoology at Woods Hole, Mass., and one summer with Professor Polin studying biologic chemistry at Harvard University. During the World War he served with the Students' Training Corps.

He received his medical degree at Johns Hopkins University in 1923. During his student years he published a chemical paper on "Nucleotides," and a paper, conjointly with Dr. Lampson, on "Polycythemia." In 1923-24, he was appointed resident house officer in the Harriet Lane Children's Hospital of Johns Hopkins University, Baltimore, in which he served under direction of the late Dr. John Howland. In 1924-25 he served as chief resident physician in the Sarah Morris Children's Hospital of the Michael Reese Hospital in Chicago. In 1925-26 he studied in Europe under the late Professor Pirquet in Vienna, Professor Leiner, and others; and in Berlin he worked with Professor Czerny and Professor Finklestein, with the latter he conducted an investigation on "Protein Fever," the results of which were published in the *Zeitschrift für Kinderheilkunde*.

On his return to Chicago he was appointed to the faculty in the Department of Pediatrics at Northwestern University attaining the ranks of assistant, instructor; and since 1933, associate. For four years he was on the attending pediatric staff of St. Luke's Hospital, Chicago, and subsequently was made a member of the staff of the Sarah Morris Children's Hospital. For five years he was attending pediatrician at the Chicago Lying-In Hospital in which he had charge of the newborn service. At present he is chief pediatrician to Dr. De Lee's Maternity Center. He is a director of the Infant Welfare Society of Chicago. He is attending physician in the Cardiac Department of the Spaulding School for Handicapped Children.

Since his graduation he has contributed a group of papers. He is a member of Chicago and Illinois State Medical Societies; Fellow American Medical Association; Fellow Institute of Medicine, Chicago; Member Chicago Pediatric Society; Member American Academy of Pediatrics; translated and edited chapter on Blood (Pfäundler and Schossman), and was coeditor of *Yearbook of Pediatrics*, 1926-1933.

Section on Dermatology

Howard Fox, M.D., professor of dermatology and syphilology at the New York University School of Medicine, will address

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afternoon, Dr. I. Newton Kugelmass of New York City, will discuss the clinical control of hemorrhagic disturbances in children.

The Thursday session begins with the report of a case of duodenal ulcer in a boy age 5 (Dr. Norbert D. Gannon). Then follows a discussion of leukemia in childhood by the guest speaker of the afternoon, Dr. Arthur F. Abt of Chicago, Ill. The concluding papers are on scarlet fever immunization (Dr. Emily P. Bacon) and the preventive treatment of goiter in schools, by the representative of the School Physicians' Association, Dr. John M. Quigley.

The Section on Dermatology will meet on Wednesday afternoon, October 3. Its program includes papers on psoriasis (Dr. Park A. Deckard); eczema (Dr. Charlotte Backus-Jordan); acne vulgaris (Dr. Frederick Amshel); stovarsal treatment in congenital syphilis (Drs. Donald M. Pillsbury and H. Harris Perlman); pityriasis rosea (Dr. Thomas Butterworth); cutaneous ringworm infection (Dr. Jacques P. Guequierre). The guest speaker is Dr. Howard Fox New York City, who will discuss diseases of the tongue and mouth.

The Section on Urology will meet on Tuesday and Wednesday afternoons, October 2 and 3. The guest speaker of the Section, Dr. George G. Smith of Boston, Mass., will discuss the treatment of tumor of the bladder at the Tuesday session. Other papers of that day include: Renal and ureteral anomalies (Dr. Peter P. Mayock); rupture of the kidney (Dr. Thomas

C. Stellwagen; nephritis and calculus formation and their relation to urinary anomalies (Dr. Henry Sangree); stricture of the ureter and its treatment (Dr. Burtis M. Hance). The Wednesday program includes papers on anuria as a surgical complication (Dr. Francis G. Harrison); the differential diagnosis of genital lesions (Dr. David P. McCune); renal tumors in children (Dr. James J. Lee); malignant tumors of the kidney (Dr. Leo P. Gibbons); a case of spontaneous rupture of a hydro-nephrotic kidney (Dr. Ralph P. Beatty), and a case of unusual foreign body of the urethra (Dr. Stanley Q. West).

For diversity, practicability and timeliness of subjects, the 1934 scientific program is all that could be desired. The speakers are representative of the best in Pennsylvania medicine. The twelve guest speakers are recognized throughout the land as leaders in their respective fields. The scientific exhibit, which bids fair to be the best in the history of the Society, is in large measure directly related to the scientific program. All these should combine to make the Wilkes-Barre meeting one of

great interest and usefulness and should insure a large attendance.

RICHARD A. KERN, *Chairman*,
Committee on Scientific Work, Philadelphia.

Notable among the Scientific Exhibits is one from McGill University School of Medicine, Montreal, shown previously only in London, at the centenary of the British Medical Association.

THE GUEST SPEAKERS

Section on Dermatology

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The Section on Dermatology at the annual meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre, on Oct. 3. Dr. Fox is a distinguished dermatologist of international reputation who has had a large experience and has written extensively on numerous dermatologic topics. More recently Dr. Fox has shown a considerable interest in dermatologic diseases of the tropics. He is the son of the well known Dr. George Henry Fox, who is still living in New York. Dr. Fox has held numerous appointments in New York City, among them being dermatologist at the Bellevue, Harlem, Lenox Hill, and Willard Parker Hospitals. He served as commanding officer of Base Hospital No. 136 at Vannes, with active service extending throughout the World War.

Dr. Fox is a former president of the American Dermatological Association, former chairman of the Section on Dermatology of the American Medical Association, of the New York Academy of Medicine, and New York State Medical Society. At present Dr. Fox is president of the newly organized American Board of Dermatology and Syphilology for the certification of specialists. Dr. Fox is likewise corresponding member of the British Association of Dermatology and Syphilology, the Société française de dermatologie et de syphilographie, and the Danish Dermatological Society. Dr. Fox is an experienced and delightful speaker and his address on diseases of the tongue, illustrated as it will be from his extensive collection of lantern slides, should prove of great interest.

Section on Urology

George Gilbert Smith, M.D., born Sept. 23, 1883, Brooklyn, N. Y., prepared for college at East Orange (N. J.) High School. He was graduated from Harvard University with degree of A.B., 1905, and from Harvard Medical School, 1908; was surgical intern at Massachusetts General Hospital from July, 1908, to December, 1909. After leaving this hospital, he assisted Dr. Hugh Cabot for several years and was associated with Dr. Arthur L. Chute from 1917 to 1920. In 1911 became a member of the newly-formed Department of Urology at the Massachusetts General Hospital of which Dr. Hugh Cabot was the chief. He did surgery and urology until 1917, after which he confined his work to urology. He was in medical service for three months, Allies Hospital, during the World War, at Compiègne, France, July to October, 1915; was captain in the Medical Reserve Corps., U. S. A., October, 1918—May, 1919; four months at Camp Humphreys, and four months at General Hospital No. 9, Lakewood, N. J.

He is urologist at Palmer Memorial Hospital, Huntington Hospital, and Massachusetts General Hospital; associate editor, *New England Journal of Medicine*. Dr. Smith is a member of the Société Internationale d'Urologie, American Association of which he is now president-elect, New England Surgical Society, Surgical Research Society, Massachusetts Medical Society, American Medical Association, and American College of Surgeons.

Dr. Smith will speak on the subject, "Bladder Tumors," a field in which he has done much interesting and excellent work, especially in malignant disease of the bladder.

THE SCIENTIFIC EXHIBIT

ANGELO L. LUCHI, *Chairman*

The 1934 Scientific Exhibit maintains the high standard of excellence set at Philadelphia in 1933. It is much larger than ever before. This year's innovation, the "group exhibits," is inspired by President Guthrie's program of post-graduate education and will give interested visitors an opportunity for an intensive review course in the subject presented. All the sections have sponsored exhibits and an effort has been made to correlate the exhibits with the section program.

Admission to the Scientific Exhibit will be granted only to those wearing the convention button which is given to all who register. In special cases a guest card will be issued.

The individual exhibits are located on the ground floor of the Irem Temple, the "group exhibits" in the Kirby Health Center, and the exhibit demonstration, "Underwater Gymnastics," in the pool of the Y. W. C. A. building, all in the first block of North Franklin Street.

THE IREM TEMPLE

Ground Floor, Spaces A, B, and C

SECTION ON MEDICINE

SPACE A

Encephalographic Studies in Mental Diseases.—Clinico-anatomico-encephalographic correlation as shown in roentgenograms. Matthew T. Moore, David Nathan, Annie R. Elliott, Charles A. Laubach, Norristown State Hospital, Temple University Medical School, Philadelphia.

Cardiovascular Pathology.—Pathologic specimens illustrating cardiovascular disease. B. A. Gouley and S. Bellett, Philadelphia General Hospital and Robinette Foundation, Philadelphia.

Cardiac Roentgenography.—Small transparencies of the chest, illustrating changes in size and shape of the heart and great vessels due to cardiovascular disease. Hugo Roesler, Temple University Medical School, Philadelphia.

The Diagnosis and Treatment of Peripheral Vascular Disease.—(a) Charts showing technic of detecting organic vascular obstruction. (b) Charts showing effects on skin temperature of vasodilation induced by heat. (c) Apparatus for increasing blood flow to the extremities by means of alternate negative and positive pressure. (d) Charts and photographs showing results of treatment. Dr. Landis will demonstrate his pressure pump on Tuesday, Wednesday, and Thursday, 11:00 a.m. to 12:00 noon and from 2:00 p.m. to 3:00 p.m. Eugene M. Landis and Lewis H. Hitzrot, University of Pennsylvania Hospital and Philadelphia General Hospital, Philadelphia.

Electrocardiograms—Normal and Abnormal.—Normal electrocardiograms; abnormal variations in each part of the complex; the arrhythmias; typical abnormal elec-

trocardiograms; direct leads in electrocardiography. Electrocardiograms of interested visitors will be taken in booth 44, of the technical exhibit. Alexander Margolies and Francis C. Wood, University of Pennsylvania Hospital, Philadelphia.

See also Motion Picture Program, "Cardiac Arrhythmias."

Venous Pressure.—A simplified apparatus. Exhibit of its practical application in diagnosis of disease. William G. Leaman, Jr., Woman's Medical College of Pennsylvania, Philadelphia.

See also Motion Picture Program, "Venous Pressure."

Venous Pressure.—A simplified apparatus. Exhibits of its practical application in the diagnosis of disease. George C. Griffith, Presbyterian and Graduate Hospitals, Philadelphia.

Schedule of demonstrations of exhibits 6 and 7 will be posted in the booth.

Some Modern Methods of Investigating the Circulation in the Extremities.—Demonstration of the reaction of the skin to histamin. Thermocouple skin temperature determinations. Constant heat apparatus for the maintenance of circulation in a gangrenous limb, with and without high oxygen tension. Isaac Starr, University of Pennsylvania Medical School, Philadelphia.

Exhibits 2-8 are sponsored by the Philadelphia and Pennsylvania Heart Associations. A. Margolies, chairman of the Exhibit Committee. Miss Helen Heikes, executive secretary of the Philadelphia Heart Association, will be in attendance at the booth for distribution of literature.

Chemical Factors in Cell Proliferation.—(1) Photographs and photomicrographs of wounds in humans, the skins of rats and mice, regenerating claws of hermit crabs to show that the sulphhydryl group is a natural stimulus to cell division. These photographs also yield an answer to the old question of what happens when more cells are produced for a part than are needed. (2) Steps in the isolation of pure l-cystine from wool. l-Cystine contains sulphur in the SS form. It is reduced by proper methods to cysteine which contains the sulphhydryl group which can then be used for cell stimulation. These methods of manufacture yield l-cystine of high purity. It is l-cystine alone of the various forms which has biologic activity.

Roentgenograms of Interesting Cases.—The photographs shown are made from reductions of roentgenograms of cases presented at a weekly Roentgen-ray Clinic, held at the Moses Taylor Hospital, Scranton, and attended by roentgenologists from Lackawanna and Luzerne Counties. B. H. Jackson and Wm. J. Corcoran, Roentgen-ray Clinic of Moses Taylor Hospital, Scranton.

The Leukocytic Picture in Infection.—Large scale colored drawings illustrating various types of reactions of the circulating blood leukocytes to various toxemias (infection). Max M. Strumia, Bryn Mawr Hospital Laboratory, Bryn Mawr.

Inflammatory Diseases of the Arteries with Special Reference to the Arteries of the Lower Extremities.—Classification of arterial diseases, both the vasospastic and organic forms. Illustration of various types of inflammatory diseases of the arteries with a history of the patient, a record of the results of the various cir-

culatory function tests and photographs of sections taken from the vessels. David W. Kramer, Vascular Clinic, Medical Dept., Jefferson Medical College, Philadelphia.

Ultimate Result Achieved by the Various Forms of Treatment of Tuberculous Patients.—Reproduction of serial roentgenograms of patients presenting cavitation in the various stages of development. These films cover the period from the beginning of treatment until ultimate and complete cure has been accomplished. Some of these cases have been watched for as long as seven and eight years, with roentgenograms at frequent intervals. A. J. Cohen, Eagleville Sanatorium, Eagleville.

Inheritance and Disease.—Charts, illustrations, glass plates. Joseph H. Barach, University of Pittsburgh, Pittsburgh.

SPACE B

Necropsy Technic.—Exhibit will consist of charts outlining the methods of obtaining permission, the reasons for refusal to grant permission, and the medicolegal aspects of necropsy examinations. The incisions, technic of preserving the circulation, and restoration of the body so as to facilitate the work of the mortician, will be shown by diagrams and sketches. Essential and useful instruments, records, etc., will be demonstrated. Henry F. Hunt, Geisinger Memorial Hospital, Danville.

U. S. Pharmacopœia and National Formulary Products.—An Exhibit on some of the more important therapeutic agents official in the Pharmacopœia of the U. S. Also an exhibit of vehicles and some particularly acceptable forms for the administration of medicines as offered by the National Formulary. Demonstration of the International Units of Vitamines and Hormones. The Philadelphia College of Pharmacy and Science, Philadelphia.

Epidemic Encephalitis.—The exhibit has special reference to the 1933 outbreak. It will be presented under four headings as follows: Epidemiology, Pathology, Etiology, and Clinical Features. This exhibit has been prepared jointly by a special committee of the American Medical Association and the United States Public Health Service.

Mental Hygiene Activities in the Danville State Hospital.—A schematic representation of the organization and the activities of the Danville State Hospital with special emphasis on mental hygiene. J. Allen Jackson and H. V. Pike, Danville State Hospital, Danville.

See also Motion Picture Program, "The Role of the Danville State Hospital in Mental Hygiene."

Hematology.—1. Exhibit of charts and apparatus to illustrate the complete laboratory examination of the blood and methods of calculation. 2. Natural color photomicrographs of all types of blood cells and various blood dyscrasias. Russell L. Haden, Cleveland Clinic, Cleveland, Ohio.

Biochemistry in Medicine.—Charts and graphs will illustrate the following diseases or group of diseases: 1. Renal dysfunction; 2. Diabetes; 3. Hypochloremia and water balance; 4. Acidosis and alkalosis; 5. Diseases of the liver bile ducts and gallbladder; 7. Toxemia of pregnancy; 8. Allergic conditions; 9. Endocrine disturbances. Formal demonstrations on the above topics will be given during the entire session. The schedule will be announced in the booth and at the desk of the

Chairman of the Scientific Exhibit. The Staff of the Abington Memorial Hospital, Abington.

See also Laboratory Exhibit on balcony.

Poliomyelitis.—Charts concerning epidemiology, symptomatology, diagnosis, prophylaxis, and treatment. Joseph Stokes, Jr., Theodore S. Wilder, Irving J. Woleman, and John P. Scott, Children's Hospital of Philadelphia, Philadelphia.

See also Motion Picture Program, "Aftercare of Poliomyelitis" and "Underwater Gymnastics."

Public Relations—Education.—The Public Relations Committee, urging repetition in 1934 of the success attained in 1933 by more than half of the county medical societies in the observance of Pennsylvania Health Day, exhibit a résumé of the plans followed by several societies. The methods followed in the most successful demonstration of county health leadership by a county medical society in 1933 will be displayed.

In conjunction with the Education Committee of the Board of Trustees, maps and clipping files will be displayed, showing the location of the newspapers in the counties of Pennsylvania which publish daily or weekly health articles submitted by the State Society Committee in the name of the component county medical society.

This exhibit is dedicated to the Public Relations Committees of the various county medical societies whose health leadership in the county is reflected in the maps and in the clippings compiled and displayed. Committee on Public Relations, The Medical Society of the State of Pennsylvania.

SECTION ON SURGERY

Painful Feet.—Transparencies showing radiologic findings in painful feet. Charts calling attention to symptom areas. Various corrections in shoes. Arthur D. Kurtz, Jefferson Medical College, Philadelphia.

Surgery of the Jaw and Face.—Stereoscopic and other pictures illustrating surgical treatment of injuries and deformities of the bones and soft tissue of the face. Robert H. Ivy and Lawrence Curtis, Evans Institute and Graduate School of Medicine, University of Pennsylvania, Philadelphia.

Diverticulum of the Pharynx (Esophagus).—A consideration of symptoms, diagnosis, and treatment by the one-stage combined method. T. A. Shallow and L. H. Clerf, Jefferson Hospital, Philadelphia.

See also Motion Picture Program: "Diverticulum of the Pharynx."

Activities of the State Department of Health.—This exhibit will give a detailed photographic account of orthopedic work being done at the State Health Department's Crippled Children's Hospital at Elizabethtown. Pennsylvania State Department of Health, Harrisburg.

Symptomatology of Tumors of the Spinal Cord.—Twenty verified cases of spinal cord tumor will be exhibited with clinical charts, operative drawings and specimens of tumors removed. Francis Clark Grant, Graduate and University Hospitals, Philadelphia.

Temple University Hospital Treatment of Eclampsia.—Charts and graphs. Formal demonstrations with lantern slides to be given at stated intervals. Schedule to be posted in the booth. J. O. Arnold, Medical School, Temple University, Philadelphia.

SECTION ON EYE, EAR, NOSE AND THROAT DISEASES

Specimens of the Paranasal Sinuses with Special Attention Given to the Nasofrontal Connections.—This exhibit brings out especially the various types of connections between the nose and frontal sinus. The diverse types of lateral nasal walls are also shown. Kelvin A. Kasper, Jefferson Medical School, Philadelphia.

The Symptom Vertigo.—Diagrams of the vestibular apparatus depicting lesions in various parts showing how vertigo results. Classification of the various causes of vertigo. A motion picture demonstration of a vestibular examination. Julius Winston, Department of Otolaryngology, University of Pennsylvania School of Medicine, Philadelphia.

SECTION ON PEDIATRICS

Congenital Cardiac Disease.—Some fifty anatomical specimens, mounted in glass jars, showing various types of fish and reptilian hearts and cardiac anomalies placed on two tiers of shelving below a pictorial wall exhibit, arranged on an interrelated plan, illustrating the etiology and clinical classification of congenital cardiac disease. Maude E. Abbott, Medical Museum, McGill University, Montreal, Canada.

Allergy.—Photographs showing extreme effects of asthma in children. Roentgenograms of lungs showing extreme sensitivity of sufferers. Diagrammatic charts showing: Complications of hay fever—routine examinations; outline of treatment; indirect methods of testing; evaluation of skin reactions. J. A. Clarke, Jr., Department of Applied Immunology, Curtis Clinic, Jefferson Hospital, Philadelphia.

The Significance of the Intelligence Quotient and Simple Methods of Obtaining It.—A psychologist will explain from charts, diagrams, and apparatus how the intelligence quotient is obtained and applied. Baldwin L. Keyes, Psychiatric Clinics, Jefferson Medical College, Philadelphia.

ON BALCONY

Laboratory Exhibit.—During the session actual demonstrations of practical laboratory methods will be given by (Miss) M. S. Jones, B.Sc., of the Abington Memorial Hospital, Abington, and (Miss) J. L. Soars, B.A., L.T., of the Geisinger Memorial Hospital, Danville. They will chiefly illustrate methods discussed in the related exhibits, "Biochemistry in Medicine," booth No. 19, space "B," ground floor of Irem Temple; and "Recent Advances in Medicine," Room No. 215, on second floor of Kirby Memorial Health Center. Schedule to be posted in booths No. 20, 34, and 45.

Biliary Drainage.—Technic demonstrated by: 1. Fresh specimens; 2. Photomicrographs; 3. Motion picture film (30 minutes); 4. Specimens of removed gallbladders and gallstones. Charles Francis Long, William A. Swalm, and B. B. Vincent Lyon, Temple University Medical School and Jefferson Medical School, Philadelphia.

SPACE C

Twenty-five Years of Diphtheria in Wilkes-Barre.—Three dimensional graph. Trend line graph. Virulence test. *Corynebacterium diphtheriae gravis et mitis*. Toxin production in vitro. Toxoid (alum precipitated).

Toxoid (Ramon). Toxin-antitoxin. Charles B. Crittenden, Wilkes-Barre Board of Health, Wilkes-Barre.

Treatment of Measles with Serum and Its Preparation.—Charts showing the value of the use of measles serum in institutions and in private practice. Temperature charts of treated and untreated cases. Chart showing step by step the preparation of the serum. Apparatus used. Demonstration of the Schick test. Exhibition of negative, false, and positive reactions. Herbert E. Fall, Chairman, Francis T. O'Donnell, Sec'y, Section on Pediatrics of The Medical Society of the State of Pennsylvania.

Clinical Control of Chronic Hemorrhagic States in Childhood.—Hemorrhagic diseases are diagnosed, classified, and treated on the basis of quantitating the blood clotting constituents. Methods have been developed for their estimation, formulated into an index of blood clotting function. It serves both for diagnostic and therapeutic purposes. The rôle of diet in the treatment of various hemorrhagic diseases has been evaluated quantitatively. I. Newton Kugelmass, Department of Pediatrics, Fifth Avenue Hospital, New York City.

Shock of the Newborn.—Birth shock of the newborn is a syndrome giving way to the so-called physiologic symptoms of the newborn. These have been correlated with blood studies demonstrating a diminished blood volume, acidosis, diminished blood flow, increased blood viscosity, increased sensitivity and decreased urinary volume. These manifestations at birth simulate a patient in shock. It is demonstrated that every baby born reveals some degree of shock usually compensated. Thus far only the uncompensated shock has been given clinical credence. The first procedure in the management of the newborn is to treat the shock consequent to the birth process. The solution devised consists of 6.0% gelatine, 3.0% dextrose, and 0.5% sodium chloride, osmolar in concentration and physiologic in strength. Each of these constituents is corrective of the shock, mild or severe. In addition it prevents the initial loss of weight in newborns. The clinical and experimental method of demonstrating birth shock in the newborn, the method of administering the solution and first feeding are presented graphically. I. Newton Kugelmass, Department of Pediatrics, Fifth Avenue Hospital, New York, N. Y.

CANCER

Natural Size Breast Sections.—Viewing boxes—electrically lighted—containing breast sections, showing microscopic slides of entire breast. Also duplicate slides for microscopic examination. Schedule of formal demonstrations to be posted in booth. Talcott Wainwright and J. William White, Cancer Research Laboratory, Scranton.

Pathology and Treatment of Carcinoma of the Colon and Rectum.—Specimens, drawings, diagrams, illustrating diagnostic symptoms, signs, operative procedures, etc. Damon B. Pfeiffer and J. Montgomery Deaver, Surgical Section A, Lankenau Hospital, Philadelphia.

Cancer Control.—Wax models showing various cancerous conditions, with the accompanying case histories, and wall charts concerning diagnosis and treatment of cancer. The American Society for the Control of Cancer, New York City.

Cancer of the Skin and its Treatment, Sarcoma and its Treatment.—The exhibit will demonstrate the results

obtained in the treatment of *Cancer of the Skin* by the use of electrocoagulation, radium and roentgen rays, either singly or combined according to the indications. With the knowledge now available, practically all cancers of the skin should be either prevented or cured. The exhibit of *Sarcoma* will show numerous types, some of which respond to irradiation. Early treatment of any malignant disease is the most important factor in prognosis. George E. Pfahler and Jacob H. Vastine, Philadelphia.

See also Motion Picture Program "The Chamber" and "Canti Films."

THE KIRBY MEMORIAL HEALTH CENTER

A. GROUP EXHIBIT OF KIRBY MEMORIAL HEALTH CENTER ACTIVITIES

Preventive Dentistry.—1. Dental care of prenatal patients. 2. Corrective treatment of six-year-old molar: (a) Silver nitrate treatment; (b) filling materials. 3. Demonstration of ethyl chloride as a general anesthetic. 4. Demonstration of prophylactic treatment, 2 to 4 p. m., first floor.

The Laboratory.—The laboratory of the Kirby Memorial Health Center, and the Committee on Scientific Exhibit sponsor the following two exhibits on "Recent Advances in Medicine and Public Health":

(a) The tentative schedule of the practical demonstrations to be held in Room 215, second floor, is as follows:

Tuesday, October 2

9:00 a. m. *Congenital Heart Disease*.—A lantern slide demonstration bearing especially upon the clinical classification of congenital heart disease. Maude E. Abbott, assistant professor of medical research, McGill University, Montreal, Canada.

See also exhibit No. 31, "Congenital Heart Disease."

10:00 a. m. *Focal Infection*.

11:00 a. m. *Plasma Proteins*:

(a) Determinations of total plasma proteins and protein fractions. (Miss) Jessie L. Soars, B.A., L.T., Geisinger Memorial Hospital, Danville.

(b) Clinical applications, Carl E. Ervin, Department of Medicine, Geisinger Memorial Hospital, Danville.

2:00 p. m. *Hypercholesterolemia*:

(a) The cholesterol test, (Miss) Jessie L. Soars, B.A., L.T., Geisinger Memorial Hospital, Danville.

(b) Clinical applications, Howard F. Root, George F. Baker Clinic, Deaconess Hospital, Boston, Mass.

3:00 p. m. *Milk and Water Analysis*.—Edward J. Pugh, Director, Kirby Memorial Health Center Laboratory, Wilkes-Barre.

4:00 p. m. *Pancreatic Function Tests*,

Wednesday, October 3

9:00 a. m. *Basal Metabolism*.—Theoretical consideration with laboratory demonstrations. Clinical applications. William R. Marshall, Aspinwall.

10:00 a. m. *Spinal Fluid*:

(a) Physiology and normal constituents. David Nathan, Temple University School of Medicine, Philadelphia.

(b) Laboratory tests and their clinical significance. D. Meranze, Mt. Sinai Hospital, Philadelphia.

(c) Recent clinical applications. Matthew T. Moore, Temple University School of Medicine, Philadelphia.

11:00 a. m. *Oral Spirochetes and Associated Anaerobes in Pyorrhea and Lung Abscess*.—Arthur O. Penta, Chevalier Jackson Clinic, Temple University School of Medicine, Philadelphia.

12:00 m. *Respiratory Efficiency Tests*.

2:00 p. m. *Liver Function Tests with Laboratory Demonstrations*.—Recent modification of Van den Bergh's test will be shown. Frank W. Konzelmann, Temple University Medical School, Philadelphia.

3:00 p. m. *Interrelationship of Calcium, Phosphorus, and Phosphatase in Health and Disease*:

(a) Determination of calcium, phosphorus, and phosphatase, (Miss) Jessie L. Soars, B.A., L.T., Geisinger Memorial Hospital, Danville.

(b) Clinical Applications. Roy R. Snowden, Pittsburgh.

4:00 p. m. *Renal Function Tests*, with laboratory demonstrations. Max Trumper, Jefferson Medical College, Philadelphia.

Thursday, October 4

9:00 a. m. *The Wassermann Reaction*.—Edward J. Pugh, Director, Kirby Memorial Health Center, Wilkes-Barre.

10:00 a. m. *The Drunken Driver*: (a) Clinical examination. (b) Laboratory tests. (c) Legal aspects. Frank L. Pinola, Esq., Wilkes-Barre.

11:00 a. m. *Blood Volume*.

A. *Permanent Exhibit on Newer Methods in Public Health*.—Room 214.

(1) Bacteriologic analysis of milk: Agar plates, brilliant green lactose peptone bile, clean and dirty utensils, hemolytic streptococci, direct counts.

(2) Bacteriologic analysis of water: Standard methods of American Public Health Association including agar plating, lactose broth fermentation tubes, brilliant green bile, methods for confirming *B. coli* and special methods for the differentiation of fecal from

nonfecal members of the colon aërogenes group.

- (3) Demonstration of method of performing the Wassermann test following recent suggestions of American Public Health Association: Principles of test. Titration. Positive and negative tests. Anti-complimentary tests.

Edward J. Pugh, Director, Kirby Health Center Laboratory, Wilkes-Barre.

The Solarium School.—The physical and mental development of the pupils will be discussed by Charles B. Crittenden, who will present the teacher, dietitian, and physical therapist. This will be demonstrated only once on Wednesday, Oct. 3, 1934, between 11 a. m. and 1 p. m. Third Floor Solarium.

B. GROUP EXHIBIT ON PARASITOLOGY. GROUND FLOOR.

Fungi Pathogenic to Man.—Pictures of lesions of the more common fungous diseases, pictures of fungi in infected tissue and of their characteristic spore forms in culture, together with typical cultures and a short discussion of methods of diagnosis and culture. John G. Downing, Department of Dermatology, Tufts College, Boston, Mass.; W. H. Weston, Jr., professor of cryptogamic botany, Harvard University, Cambridge, Mass.; and Sarah M. Cousins, Radcliffe College, Cambridge, Mass.

Animal Parasites of the Skin.—Photographs of clinical cases; photomicrographs and parasites (including copies of illustrations of very rare species); microscopic mounts of parasites themselves, hairs with ova attached, together with placard showing comprehensive list of parasites capable of infecting the skin. Fred D. Weidman and Robert L. Gilman, University of Pennsylvania Medical School, Philadelphia.

The Most Important Human Parasites in the Temperate Zones.—Leuckart wall charts of helminths. Wall charts of protozoa. Museum specimens of bottled helminths and various organs showing parasitologic lesions. Microscopic demonstrations of tapeworm scolices and eggs, eggs of *Ascaris*, *Necator*, *Enterobius* and *Trichuris*, and *Trichinella* in tissue.

Endameba Histolytica: Trophozoite, cyst, section of intestinal ulcer, section of liver abscess. *Endameba Coli*: Trophozoite, cyst. *Endameba Gingivalis*: Trophozoite. *Endolimax Nana*: Trophozoite, cyst. *Iodameba Buetschlii*: Trophozoite, cyst. *Dientameba Fragilis*: Trophozoite. *Trichomonas vaginalis*; *Trichomonas hominis*; *Chilomastix mesnili*; *Balantidium Coli*. *Plasmodia*: *P. vivax*, *P. malariae*, *P. falciparum*.

Practical Demonstrations: The practical demonstrations will represent an educational program. Any physician in attendance at the meeting may bring stools for examination. Mimeographed copies of instructions with an outline of methods will be distributed free. For beginners, the difficulties encountered will be pointed out, in view of the fact that it usually takes weeks or months of intensive training under a properly qualified instructor to acquire the knowledge and experience that will enable one to make accurately diagnoses of intestinal protozoa and helminths. A simple method for making permanent slides to be sent to a central laboratory for staining and microscopic diagnosis will be shown in detail.

Advanced students will be given an opportunity to discuss any phase of the subject with the members of the group.

Formal Demonstrations at 11 a. m. and 2 p. m.

Motion Picture Film: "The Life History of *Endameba Histolytica*" by Thomas B. Magath, Mayo Clinic, Rochester, Minnesota; schedule for its projection to be announced daily in the booth. D. H. Wenrich and R. M. Stabler, Zoological Laboratory, University of Pennsylvania, and H. L. Ratcliffe, Department of Pathology, University of Pennsylvania, School of Medicine, Philadelphia.

C. GROUP EXHIBIT ON COPROLOGY. GROUND FLOOR.

Study in Infant Stools.—Exhibit of a collection of mounted plasticine models of infant stools from actual normal and abnormal specimens, showing the effects of various types of feeding and of changes in the constituents of the formulas. Frank Vander Bogert, Department of Pediatrics, Ellis Hospital, Schenectady, N. Y.

A Practical Consideration of Coprology.—(Exclusive of parasites.) Permanent exhibit on (1) normal and pathologic physiology of the gastro-intestinal tract with special regard to the feces; (2) intestinal test diets; estimation of transit time; roughage and bland bulk of various foods; (3) charts, paintings, photographs and casts referable to the macroscopic, microscopic, chemical, and bacteriologic examination of the feces; (4) clinical laboratory demonstrations of fresh stools. Formal demonstrations: 10:00 a. m. and 1:00 p. m. William A. Swalm, C. F. Long, and J. R. Martin, Department of Gastro-enterology, Temple University Medical School, Philadelphia.

Gross Pathologic Lesions of the Colon and Rectum.—Mounted pathologic specimens: carcinoma, sarcoma, polyps, multiple polyposis, ulcerative colitis (nonspecific), bacillary dysentery, amebic dysentery, tuberculosis: megacolon, diverticula, pigmentation, traumatic perforation, etc. Photomicrographs of associated histology. Benjamin Haskell and David R. Morgan, Jefferson Medical College and Hospital, Philadelphia.

The Roentgen-ray Diagnosis of Diseases of the Colon.—Henry K. Panoost and Eugene P. Pendergrass, and J. Robert Andrews, Hospital of the University of Pennsylvania, Philadelphia.

D. GROUP EXHIBIT ON UROLOGY

Rare Urinary Anomalies.—Urinary anomalies and their relation to nephritis and calculus formation. Jar specimens, individual drawings, roentgen-ray plates, microscopic sections and their descriptions. Henry Sangree, R. F. Tarasi, and David Morgan, University of Pennsylvania and Jefferson Medical College, Philadelphia.

Diagnosis of Urinary Lesions by Roentgen Ray.—Various genito-urinary lesions with clinical notes and associated pyelographic (both retrograde and excretory) studies. Willard H. Kinney, Chairman, Section on Urology, and Theodore R. Fetter, Department of Urology and Richard M. Smith, Department of Roentgenology, Jefferson Hospital, Philadelphia.

E. GROUP EXHIBIT ON TOXIC CIRRHOSIS OF THE LIVER

Toxic Cirrhosis of the Liver Due to Cinchophen and Its Derivatives.—Exhibit of gross and microscopic

specimens and photographs. Charts of case histories. Frank W. Konzelmann, Temple University Hospital, Philadelphia.

Cinchophen and Its Dangers.—There will be charts showing the different preparations containing cinchophen, one presenting the symptoms of cinchophen poisoning; one or two case histories, and, if possible, some gross specimens, such as the liver, and the histological slides of the same. Stanley DeWitt Conklin, Guthrie Clinic and Robert Packer Hospital, Sayre.

F. GROUP EXHIBIT ON DIABETES MELLITUS

Influence of Hypophysectomy and Adrenalectomy upon Experimental Diabetes Mellitus.—Charts will be used to illustrate the main findings and, if they are available, animals will also be included in the demonstrations. C. N. H. Long and F. D. W. Lukens, Cox Institute, University of Pennsylvania, Philadelphia.

Control of Diabetes Mellitus.—Charts and panels summarizing results of treatment, and measures to be employed in the future control of the disease. Elliott P. Joslin, George F. Baker Clinic, Deaconess Hospital, Boston, Mass., and Louis I. Dublin, Ph.D., Metropolitan Life Insurance Company, New York, N. Y.

Patients' Consultation Service.—Charts and tables will be shown describing the general features of interviewing patients, including methods of physical and laboratory examination. Also records will be on exhibit showing the routine conduct of each case. Edward L. Bortz, Anthony Sindoni, Jr., and associates. Metabolic Clinic, Lankenau Hospital, Philadelphia.

The Dietetic Division.—A display of artificial food models and their equivalents in cubes of ordinary sugar, with a discussion of the various ways of planning the diet and the various types of diet in use today for diabetes, and of the method of instructing patients in the self-administration of insulin. Sister Maude Behrman, and Misses Ethel Hobson and Marian Adams, Metabolic Clinic, Lankenau Hospital, Philadelphia.

Clinical Pathologic Demonstration.—Exhibit showing lesions of the pancreas and of the peripheral vascular system from cases of diabetes. Clark Brown, Metabolic Clinic, Lankenau Hospital, Philadelphia.

Surgical Aspects of Diabetes Mellitus.—Exhibit designed to emphasize the importance of conservative surgical measures in patients with diabetes. J. M. Deaver, Metabolic Clinic, Lankenau Hospital, Philadelphia.

Roentgen-ray Division.—Films showing changes in the peripheral vascular system in metabolic disorders. Paul S. Seabold, Metabolic Clinic, Lankenau Hospital, Philadelphia.

Foot Clinic.—Equipment including charts, stool, and instruments, useful in caring for lesions of the lower extremities. Arthur Rapoport, Metabolic Clinic, Lankenau Hospital, Philadelphia.

G. GROUP EXHIBIT ON ARTHRITIS AND PHYSICAL THERAPY

Chronic Arthritis.—Consists of statistical and other data; osteologic specimens, pathologic charts, charts and diagrams illustrating the alterations of physiology involved, together with the main indication as to therapy. This exhibit is based upon and conforms closely to previous exhibits of the American Committee for the Control of Rheumatism. Ralph Pemberton, Theo-

dore F. Bach, Charles W. Scull, Ph.D., Robert T. Phillips, Morris A. Bowie, I. P. P. Hollingsworth, Philadelphia.

Arthritis of the Spine.—An exhibit of reduction of roentgenograms of the spine, together with abstracts of clinical histories, attempting to show the rate of development of vertebral arthritis, and its relation to trauma, other spinal disease, and arthritis elsewhere. Sydney J. Hawley, Geisinger Memorial Hospital, Danville.

Useful Therapeutic Measures.—A special exhibit of the Council on Physical Therapy of the American Medical Association. It demonstrates simple physical therapy measures which are of value to the general practitioner. Simple physiology of heat shown. Simple massage measures described. Simple home baker demonstrated. Booklets distributed and motion picture film shown. Committee on Graduate Education and Physical Therapy, Frank H. Krusen, chairman, Philadelphia.

H. GROUP EXHIBIT ON PNEUMONOCOCCIOSIS. ROSS K. Childerhose, Chairman.

Pneumonoconiosis:

- (a) Roentgenologic studies to illustrate the various stages of pulmonary destruction occurring among anthracite miners. Special reference and examples of intensive dusting of the lungs by the "jack hammer."
- (b) Photographs and diagrams to illustrate conditions in granite cutting industries: Methods of dust removal. Ross K. Childerhose, Devitt's Camp, Allenwood.

Heart Disease in Pneumonoconiosis:

- (a) Pulmonary heart disease from pneumonoconiosis: Transparencies of chest films from a series of cases; electrocardiograms; drawings and photographs of pathologic specimens; date of incidence and etiologic mechanism.
- (b) Other (unrelated) heart diseases in pneumonoconiosis: transparencies of chest films; date of incidence; electrocardiograms. John M. Dyson, Hazleton State Hospital, Hazleton.

Pneumonoconiosis and Tuberculosis.—Roentgenologic studies of various stages of pneumonoconiosis which are complicated by tuberculosis. Case history notes attached to these pictures to demonstrate the clinical aspects of this complication. Joseph Walsh, White Haven Sanatorium, White Haven.

Pathology of Pneumonoconiosis.—Gross and microscopic specimens of pneumonoconiosis which illustrate the various stages, from the early to the advanced stage. Robert R. Janjigian, Wilkes-Barre General Hospital, Wilkes-Barre.

Pneumonoconiosis.—Films and photographs. Model of White Haven Sanatorium, Isadore Kaufman and L. P. Anderson, White Haven Sanatorium, White Haven.

Take Elevator on Ground Floor and Ascend to Third Floor, Solarium

I. GROUP EXHIBIT ON FRACTURES

Formal demonstrations will proceed at 15 or 30-minute intervals as indicated below. Individual demonstrators

will be in attendance at the exhibits throughout the whole day. On Wednesday, October 3, the demonstrations will close at 11 o'clock to give way to the demonstration of the Solarium School. Demonstrations will be resumed at 2:00 p.m. H. A. Smith, Chairman of the Subcommittee on Fractures, in charge.

- 9:00 a.m. *General Considerations.*—Objects in the treatment of fractures. First Aid. Examination. Treatment: reduction, maintaining reduction, open reduction, physical therapy. The formal discussion will be in the nature of a lantern slide demonstration, while cards with comprehensive legends, placed on the wall of the booth, will punctuate the lantern talk. E. L. Eliason on Tuesday; V. W. M. Wright on Wednesday; and Drury Hinton on Thursday; University of Pennsylvania Medical School, Philadelphia.
- 9:30 a.m. *Fractures of the Skull.*—Discussion of intracranial pressure mechanism. Hydraulic display apparatus. Roentgenograms and lantern slides. The first 15 minutes of the formal talk will present the mechanism of skull fractures, the second 15 minutes, the treatment. Temple S. Fay, Temple University School of Medicine, Philadelphia.
- 10:00 a.m. *Fractures of the Mandible and Maxilla.*—Models and skulls illustrating methods of fixation. Charts and roentgenograms of fractures. Demonstrations of bandaging and closure of jaws. Robert H. Ivy, University of Pennsylvania School of Medicine, guest demonstrator, Luzerne Dental Society, Wilkes-Barre.
- 10:15 a.m. *Fractures of the Spine.*—Six technics of reduction will be shown by motion picture films with lantern slides to illustrate typical cases. Jack and plaster shells as retention apparatus. Arthur G. Davis, Hamot Hospital, Erie.
- 10:30 a.m. *Fractures of Clavicle.*—Thomas C. Outland, the Robert Packer Hospital, Sayre.
- 10:45 a.m. *Fractures About the Shoulder.*—T. McKean Downs.
- 11:00 a.m. *Fractures about the Elbow.*—A lantern slide demonstration. Voigt Mooney, Allegheny General Hospital, Pittsburgh.
- 11:15 a.m. *Fractures of Both Bones of the Forearm.*—A lantern slide demonstration. Voigt Mooney, Allegheny General Hospital, Pittsburgh.
- 11:30 a.m. *Fractures of Bones of the Hand.*—Various kinds of splints used. Roentgenograms illustrating different fractures. Bruce L. Fleming, Jefferson Medical College Hospital, Philadelphia.
- 11:45 a.m. *Fractures of Ribs.*—Charts, manikins, films. H. Alexander Smith, Wilkes-Barre General Hospital, Wilkes-Barre.

- 12:00 noon. *Fractures of the Pelvis.*—Bed with Balkan frame to demonstrate special apparatus of our own design. Roentgenograms, diagrams, etc. A lantern slide and motion picture demonstration. Grover C. Weil, Harold G. Kuehner, and John P. Henry, Mercy Hospital and University of Pittsburgh School of Medicine, Pittsburgh.
- 12:15 p.m. *Fractures of the Neck and Upper Half of the Shaft of the Femur.*—(1) General remarks and motion picture demonstration of a screw fixation method for fractures of the neck of the femur, with the functional results shown by motion pictures in individual cases. (2) Roentgenograms before and after reduction in fractures of the neck and upper half of the shaft of the femur. T. Turner Thomas and John P. Scott, Northeastern Hospital, Philadelphia.
- 1:45 p.m. *Open Reduction of Fractures of the Femur by Bone Plating.*—Motion picture demonstration of the technic of reduction with fixation by the vanadium bone plate. Grover C. Weil and associates, Mercy Hospital and University of Pittsburgh School of Medicine, Pittsburgh.
- 2:00 p.m. *Femoral Fractures.*—Plaster traction apparatus, anatomic specimens, charts, roentgen-ray films and motion picture film. John Royal Moore, Temple University School of Medicine, Philadelphia.
- 2:15 p.m. *Fractures About the Knee Joint Including Fractures of the Patella.*—Anatomic considerations. Various types of fractures in this region. Mechanism of the deformity. The treatment and the end results. Charts, photographs, roentgen-ray films and lantern slides. Louis D. Englerth, Frankford Hospital, Philadelphia.
- 2:30 p.m. *Fractures of the Shaft of the Tibia and Fibula.*—Splints. Skeletal traction. Various instruments for open reduction. Carrell-Dakin apparatus. John W. Fredette, Pittsburgh.
- 2:45 p.m. *Fractures of Tibia and Fibula Near the Ankle.*—Charts, diagrams, roentgen-ray films and motion picture film. W. L. Estes, Jr., and associates, Bethlehem.
- 3:00 p.m. *Fractures of the Foot.*—Paul R. Sieber, Mercy Hospital, Pittsburgh.
- 3:15 p.m. *Emergency Splinting and Rescue Work.*—Photographs of rescue work. Practical application by members of the Rescue Squad, Bureau of Fire, Philadelphia, of Keller-Blake Splint for Fractures of the Long Bones of Lower Extremity and the Murray-Jones Arm Splint for Fractures of Long Bones of the Upper Extremity. Discussion by Hubley R. Owen, with two films. Hubley R. Owen, Medical Division, Department of Public Safety, Philadelphia.

3:45 p. m. *Fractures in Children*.—General principles in the treatment of fractures in children that are similar to or may be different from treatment of fractures in adults. Special differences in the treatment of individual fractures. The necessity of accurate reduction of fractures about the epiphyses. The influence of bone growth and its influence on the results. What may be expected from abnormal bone growth and its influence on the result. The application of the simplified dressings including plaster splints. Lantern slides showing end results in cases united in bad position. Adolph A. Walkling, Philadelphia.

4:00 p. m. *Medicolegal Aspects of Fractures*.—John H. Collins, Esq., Wilkes-Barre.

4:15 p. m. *Nursing of Fractures*.—Responsibility of nurse. Consideration of mental health. General hygienic care. Observation of symptoms, dressings, appliances. Fracture bed. Thomas splint. Physical therapy. Use of crutches. Mercy Hospital School of Nursing, Wilkes-Barre.

4:30 p. m. *Molded Plaster Splints in Extremity Fractures*.—Demonstration of materials used and actual making of plaster splints. Their application to emergency treatment of fractures of extremity bones. Placards. Roentgen-ray films. Transparencies. Models. Fred W. Heyer, Nanticoke State Hospital, Nanticoke.

A Fracture Library.—Historical volumes, recent books and interesting reprints will be shown. Reprint service. Mrs. L. M. Grant, librarian of the Guthrie Clinic Library, Guthrie Clinic, Sayre.

Original Apparatus Used in the Nonoperative Treatment of Fractures of the Long Bones.—(1) A frame for the treatment of fractures of the shaft of the femur in children, by ventral suspension. (2) Geared spring traction apparatus. (3) Fractures of the tibia and fibula, a hand bar useful in the nonoperative treatment. Voigt Mooney, Allegheny General Hospital, Pittsburgh.

The Northeastern Pennsylvania Group will show a number of special apparatus, which have proved useful in local experience. H. Alexander Smith and associates.

MISCELLANEOUS

Roentgenology of Diseases of the Breast.—Exhibit consists of more than 100 roentgen-ray films of the various changes noted both in the normal and pathologic breast. Special reference to carcinoma with nonpalpable axillary metastases. Paul S. Seabold, Lankenau Hospital, Philadelphia.

Intra- and Extra-Oral Dental Pathology.—Members of the Luzerne Dental Society will present, in a practical way, by means of mouldages, photographs, roentgen-ray films, etc., dental pathology of interest to the general practitioner. B. B. Machat, D.D.S., Green Point Hospital, Brooklyn, N. Y., guest demonstrator. The Luzerne County Dental Society, Wilkes-Barre.

Nephrosis.—Large charts showing data on blood proteins, their significance and aid in diagnosis of nephrosis.

Max Trumper, Ph.D., Jefferson Medical College, Philadelphia.

Activities of the Emergency Child Health Committee.

Activities and History of the Philadelphia County Medical Society.—Motion and still pictures. Information of importance to the medical profession will be distributed. The Philadelphia County Medical Society, Mr. Franklin Crispin, executive secretary.

Rapid Surgical Tissue Diagnosis by Ultropak.—Practical demonstration of use of Ultropak in rapid tissue diagnosis. Frederick W. Heyer, Talcott Wainwright, and William L. Lanyon, State Hospital of Nanticoke, Nanticoke.

Clinical Case Studies.—Roy R. Snowden, Pittsburgh Diagnostic Clinic, Pittsburgh.

Y. W. C. A. BUILDING

Underwater Gymnastics.—Practical demonstration of corrective exercises for children with paralyzed limbs and other types of deformities. Demonstrations will be given in the pool of the Y. W. C. A. Building at 11:00 a. m. The Wyoming Valley Crippled Children's Association, H. Alexander Smith, surgeon-in-charge, and Miriam B. Velasco, executive secretary, Y. W. C. A., Wilkes-Barre.

See also Motion Picture Program—"After Care of Poliomyelitis" and "Underwater Gymnastics."

MOTION PICTURE PROGRAM

Each film will be shown twice on different days. In this way it is hoped to accommodate those physicians who unavoidably miss one of the demonstrations and who may find it possible to slip away for the 15 or 20 minutes necessary to receive the message from a picture in which they are particularly interested.

POTENTATES' ROOM, FIRST FLOOR, IREM TEMPLE

Tuesday Morning, October 2

9:00 a. m. *The Circulation of the Blood*.—The Harvey film. This film was prepared in celebration of the tercentenary of Harvey's discovery of the circulation of the blood. The film depicts the incidents described in Harvey's *De Motu Cordis* and it was prepared under the direction of Sir Thomas Lewis in England. Obtained through the courtesy of Wm. J. Kerr, professor of medicine, University of California Medical School, San Francisco, Cal.

10:05 a. m. *Cancer of the Larynx*.—This film demonstrates the technic of diagnosis and treatment of cancer of the larynx. The necessity of early diagnosis is stressed and suggestions made, particularly to the general practitioner, in order that he may arrive at a diagnosis early enough to save the patient's larynx and life. Illustrative cases are shown with technic of laryngofissure for the cure of cancer of the vocal cord. Gabriel Tucker, Philadelphia, with personal demonstration.

10:20 a. m. *Eye Operations*.—Simple extractions. Extraction (simple) intracapsular by a buccal vacuum method. Knapp simple intracapsular extraction. Combined extraction. Needling for secondary cataract. Optical iridectomy. Tenotomy. Todd-Parker tucking operation for squint. Dimitry gold ball implantation. Magnet extraction of intra-ocular foreign body. Galvanocautery puncture for entropion. Safar operation for detached retina. Frank C. Parker, Philadelphia, with personal demonstration.

11:00 a. m. *Prevention of Burns*.—This film was prepared by the Milwaukee Children's Hospital for use in connection with educational work on the prevention of burns. Medical groups elsewhere will undoubtedly be interested because the material can be adapted to other hospitals or locations. Stanley J. Seeger, Milwaukee, Wis.

11:15 a. m. *Tannic Acid in the Treatment of Burns*.—This film was prepared under the supervision of Dr. Ray D. McClure and Dr. G. I. Allen of the Henry Ford Hospital, and sets forth the rationale and method of treating burns with tannic acid, developed by the late Edward C. Davidson, while on the staff of the Henry Ford Hospital in 1924-1925. R. D. McClure and C. I. Allen, Detroit, Mich.

11:30 a. m. *Various Aspects of Cells in Living Tissue*.—Technic of tissue culture. Growth and activity of the three main types of cells in the living body; epithelial cells, fibroblasts and phagocytes. Appearance and growth of carcinoma and sarcoma tissue. Division of carcinoma and sarcoma cells from the human body under high magnification. A piece of mammary carcinoma is shown infiltrating a mass of beating heart tissue taken from a twelve day old chick, this action covering a period of twenty days. Robert Chambers, Department of Biology, New York University, New York, N. Y. Obtained through the courtesy of the American Society for the Control of Cancer, New York, N. Y.

12:15 p. m. *Venous Pressure*.—A film depicting a method for obtaining accurate venous pressure readings in the clinic. It has an historical introduction. William G. Leaman, Jr., Department of Cardiology, Woman's Medical College of Pennsylvania, Philadelphia.

12:30 p. m. *Behavior of Living Tissue in Vitro and the Effect of Radium Upon Living Cells*.—R. Canti, Strangeways Research Hospital, Cambridge, England. Obtained through the courtesy of the American Society for the Control of Cancer, New York City.

Tuesday Afternoon, October 2

2:00 p. m. *Pernicious Anemia*.—Diagnosis, treatment, and results. William P. Murphy, Boston, Mass.

2:30 p. m. *Thoracoplasty and Phrenicectomy*.—Surgical technic and results, shown by roentgen ray. Joseph Shilen, Pittsburgh.

2:50 p. m. *a. Tannic Acid Treatment of Burns.*
b. Technic of the Thiersch or "Split" Graft with Examples of the Results.
c. The Use of Full Thickness Grafts—Free and Pedicled.—This film shows graphically the treatment of burns under the tannic acid régime as modified by the author, the indications for and the technic of the various methods of skin transplantation which are found most useful, together with illustrative results of each method. D. M. Glover, Cleveland, Ohio.

3:30 p. m. *Physical Diagnosis*.—Its history and technic. This is a 4-reel motion picture presentation. It is a teaching film used at the Woman's Medical College of Pennsylvania, containing acted scenes from the lives of the pioneers contributing to the advance of this branch of medicine. This film brings medical history into the clinic and is the first time this subject has been made use of in a motion picture film to introduce clinical material. There are scenes of Hippocrates in the Temple of Cos, William Harvey and the discovery of the Circulation of the Blood, Stephen Hales and the first blood pressure determinations, Auenbrugger and the discovery of the art of percussion. Laennec and the discovery of the stethoscope is enacted as well as scenes from the Necker Hospital, Paris, where the first stethoscope was used. William G. Leaman, Jr., Philadelphia, with author's demonstration.

4:45 p. m. *Electrocardiographic Studies of the Dying Heart in Angina Pectoris*.—Ronald L. Hamilton, the Robert Packer Hospital, Sayre, with author's demonstration.

Wednesday Morning, October 3

9:00 a. m. *The Role of the Danville State Hospital in Mental Hygiene*.—The three reels deal with the physical and administrative set-up of the hospital and the treatment the patient receives from the time of reception until recovery and re-adaptation in the community under social service supervision. The film is highly instructive from the standpoint of the medical approach to the understanding of the patient and the various forms of treatment used in the restoration of the mentally ill. J. Allen Jackson, State Hospital, Danville.

- 9:45 a. m. *Human Locomotion*.—This film deals with the physiology of human locomotion and is based upon studies made by the author at the Allegheny General Hospital, Pittsburgh. Voigt Mooney, Pittsburgh.
- 10:00 a. m. *Aftercare of Poliomyelitis*.—Aftercare of poliomyelitis from beginning of treatment through muscle training. Application of braces. Arthur T. Legg, Harvard Medical School, Boston, Mass.
- 10:30 a. m. *Human Semen with Relation to Fertility*.—Demonstration of types of seminal specimens. Abnormal spermatozoa are illustrated by stain and in moving form. Interaction between sperm and cervical material. Postcoital studies. Fertilization of star fish ova by spermatozoa of that species. Robert S. Hotchkiss, Cornell University Medical School, New York, N. Y.
- 10:50 a. m. *Posture*.—A film presenting material on good posture and its relation to physical fitness. The film was produced under the supervision of Dr. Armin Klein, director of the Posture Clinic of the Massachusetts General Hospital and of Posture Clinics for the Health Department of Boston. Children's Bureau, Washington, D. C.
- 11:20 a. m. *Biological Effects of Thymus Extract (Hanson)*.—The film shows the accruing acceleration of growth and development in each new generation born to the thymus treated strain of rats. L. G. Rowntree, Philadelphia Institute for Medical Research, J. H. Clark, Laboratories of the Philadelphia General Hospital, A. M. Hanson, Faribault Research Laboratory, Faribault, Minn.
- 11:30 a. m. *Pulsion Pharyngeal Diverticula*.—Films show briefly the symptoms, methods of diagnosis and the surgical treatment of diverticulum of the pharynx. The technique of the one stage combined method is shown in detail on the living patient and on the cadaver. A résumé of end results is given. Louis H. Clerf, Jefferson Medical School and Hospital, Philadelphia.
- 11:45 a. m. *Cardiac Arrhythmias*.—An experimental and diagrammatic demonstration of the arrhythmias. Film loaned through the courtesy of Henry K. Mohler, Jefferson Hospital, Philadelphia, and projected again this year at the request of several leading cardiologists.
- 12:30 p. m. *Underwater Gymnastics*.—H. D. Barnard, Los Angeles, Cal.

Wednesday Afternoon, October 3

- 2:00 p. m. *Circulation of the Blood*. (See motion picture program, Tuesday 9 a. m.)
- 3:05 p. m. *Cancer of the Larynx*.—(See motion picture program, Tuesday 10:05 a. m.)
- 3:20 p. m. *Eye Operation*.—(See motion picture program, Tuesday 10:30 a. m.)

- 4:00 p. m. *Prevention of Burns*.—(See motion picture program, Tuesday 11:00 a. m.)
- 4:15 p. m. *Tannic Acid in the Treatment of Burns*.—(See motion picture program, Tuesday 11:15 a. m.)
- 4:30 p. m. *Various Aspects of Cells in Living Tissue*.—(See motion picture program, Tuesday 11:30 a. m.)
- 5:15 p. m. *Venous Pressure*.—(See motion picture program, Tuesday 12:15 p. m.)
- 5:30 p. m. *Behavior of Living Tissue in Vitro and the Effect of Radium Upon Living Cells*. (See motion picture program, Tuesday 12:30 p. m.)

Thursday Morning, October 4

- 9:00 a. m. *Pernicious Anemia*.—(See motion picture program, Tuesday 2 p. m.)
- 9:30 a. m. *Thoracoplasty and Phrenicectomy*.—(See motion picture program, Tuesday 2:30 p. m.)
- 9:50 a. m. *a. Tannic Acid Treatment of Burns.*
b. Technic of the Thiersch or "Split" Graft with Examples of the Results.
c. The Use of Full Thickness Grafts—Free and Pedicled.—(See motion picture program, Tuesday 2:50 p. m.)
- 10:30 a. m. *Physical Diagnosis*.—(See motion picture program, Tuesday 3:30 p. m.)
- 12:45 p. m. *Electrocardiographic Studies of the Dying Heart in Angina Pectoris*.—(See motion picture program, Tuesday 4:45 p. m.)

Thursday Afternoon, October 4

- 2:00 p. m. *Rôle of the Danville State Hospital in Mental Hygiene*.—(See motion picture program, Wednesday 9:00 a. m.)
- 2:45 p. m. *Human Locomotion*.—(See motion picture program, Wednesday 9:45 a. m.)
- 3:00 p. m. *Aftercare of Poliomyelitis*.—(See motion picture program, Wednesday 10:00 a. m.)
- 3:30 p. m. *Human Semen with Relation to Fertility*.—(See motion picture program, Wednesday 10:30 a. m.)
- 3:50 p. m. *Posture*.—(See motion picture program, Wednesday 10:50 a. m.)
- 4:20 p. m. *Biological Effects of Thymus Extract (Hanson)*.—(See motion picture program, Wednesday 11:20 a. m.)
- 4:30 p. m. *Pulsion Pharyngeal Diverticula*.—(See motion picture program, Wednesday 11:30 a. m.)
- 4:45 p. m. *Cardiac Arrhythmias*.—(See motion picture program, Wednesday 11:45 a. m.)
- 5:30 p. m. *Underwater Gymnastics*.—(See motion picture program, Wednesday 12:30 p. m.)

THE TECHNICAL EXHIBIT

The Technical Exhibit, located in the Exhibition Hall of the Irem Temple, will open for inspection at 8:30, Monday morning, October 1, and will close at 6:00 p. m. except on Thursday, October 4, when the Exhibit Hall will close at 3:00 p. m.

The technical exhibits at the Wilkes-Barre Convention will constitute a national exposition of the many industries that supply the needs of physicians in the practice of medicine. Approved pharmaceutical manufacturers will exhibit and explain new drugs and biologicals. In most exhibits of surgical apparatus and instruments, new inventions and technic will be featured. Publishers will have on exhibit many new works and editions. Food manufacturers will have on display new dietetic products compounded to meet special nutritional requirements. All food products exhibited are approved by the Committee on Foods of the A. M. A. and should be of especial interest to the members of the Woman's Auxiliary.

In charge of each exhibit the visitor will find a representative of the firm exhibiting who in addition to knowing intimately all technical details of the product exhibited will know its application to the needs of the physician.

On visiting the Technical Exhibit and examining the products and services featured by the exhibitors, the physician will be convinced that adverse economic conditions have stimulated scientific research.

The location of the Technical Exhibit, the Registration Headquarters, and the Scientific Exhibit in the Exhibition Hall in the Irem Temple, convention headquarters, makes it particularly convenient for those who attend the Wilkes-Barre convention to spend some time each day examining products and services featured by the exhibitors.

A classified list of all institutions and companies that will be represented in the Technical Exhibit at Wilkes-Barre follows:

Chemical, Biological and Pharmaceutical

Bilhuber-Knoll Corp., Jersey City, N. J.
Davies, Rose & Co., Ltd., Boston, Mass.
Fougera & Co., Inc., New York City.
Gilliland Laboratories, Marietta, Pa.
Maltbie Chemical Co., Newark, N. J.
Merrell Co., Wm. S., Cincinnati, Ohio.
Merck & Co., Rahway, N. J.
Mutual Pharmacal Co., Inc., Syracuse, N. Y.
National Drug Co., Philadelphia, Pa.
Petrolagar Laboratories, Inc., Chicago, Ill.
Planters Edible Oil Co., Wilkes-Barre, Pa.
Sandoz Chemical Works, New York City.
Squibb & Sons, E. R., New York City.

Tailby-Nason Co., Cambridge, Mass.
Vale Chemical Co., Inc., Allentown, Pa.
Zemmer Co., Pittsburgh, Pa.

Electrical Apparatus

General Electric X-Ray Corp., Chicago, Ill.
Kelley-Koett Mfg. Co., Inc., Covington, Ky.

Electro-Diagnostic Instruments

Cameron Surgical Specialty Co., Chicago, Ill.
Sanborn Co., Cambridge, Mass.
Wasserott Bros. & Co., Wilkes-Barre, Pa.

Foods

Brown & Co., Percy A., Wilkes-Barre, Pa.
Gerber Products Co., Fremont, Mich.
Health Products Corp., Newark, N. J.
Heinz Co., H. J., Pittsburgh, Pa.
Horlick's Malted Milk Corp., Racine, Wisc.
Irradiated Evaporated Milk Institute, Chicago, Ill.
Kellogg Co., Battle Creek, Mich.
Mead Johnson & Co., Evansville, Ind.
Mellin's Food Co., Boston, Mass.
M & R Dietetic Laboratories, Inc., Columbus, Ohio.
S. M. A. Corp., Cleveland, Ohio.

Insurance

Medical Protective Co., Wheaton, Ill.

Medical Books

Lippincott Co., J. B., Philadelphia, Pa.
Mosby Co., C. V., St. Louis, Mo.
Saunders Co., W. B., Philadelphia, Pa.

Mineral Water

Kalak Water Co. of New York, Inc., New York City.

Physicians' and Hospital Equipment

Bard-Parker Co., Inc., New York City.
Cambridge Instrument Co., Cambridge, Mass.
Coward Shoe Co., New York City.
Lepel High Frequency Laboratories, New York City.
Leventhal & Sons, Wilkes-Barre, Pa.
Meyrowitz Surgical Instruments Co., E. B., New York City.
Physicians' Supply Co. of Philadelphia, Philadelphia, Pa.
Schering Corp., New York City.
Sorensen Co., Inc., C. M., Long Island City, N. Y.
Walter Shoe Co., Wilkes-Barre, Pa.

Prescription Opticians

McIntire, Magee & Brown Co., Philadelphia, Pa.

Pharmacists

Flanagan Drug Store, Wilkes-Barre, Pa.
McKenna Pharmacy, Pittsburgh, Pa.

Miscellaneous

Keith Hospital for Plastic Surgery, New York City.
Pocono Nutrition Centre, Mount Pocono, Pa.

Department Stores

Lazarus Dry Goods Co., Wilkes-Barre, Pa.

EDITORIALS

LAST CALL FOR THE ANNUAL MEETING

This is the last call for the Eighty-Fourth Annual Convention of The Medical Society of the State of Pennsylvania to be held at Wilkes-Barre, Oct. 1 to 4, 1934. Attendance upon the annual session of the State Society should be your outstanding obligation each year.

The scientific program, which appeared in the August number of the JOURNAL, shows very satisfactory end results of the activities of the Committee on Scientific Work, under the chairmanship of Richard A. Kern, Philadelphia. It is most attractive and should be carefully read by each one anticipating to be in attendance, in order to select those papers and discussions that will best meet the needs of the respective member. The guest speakers have reputations extending beyond the confines of this country. Claud Bernard states: "In science, the thing is to modify and change one's ideas as experience advances." This principle is well exemplified in our scientific sessions.

From the standpoint of the scientific sessions, the annual meeting crowds into four days the most comprehensive postgraduate instruction that can be assembled, and in itself should demand your attendance. The annual session further provides for the members of the State Society the opportunity to keep in touch with the material advancement of the profession through the scientific and technical exhibits. Attendance, too, not only affords an opportunity to make professional and personal friends throughout the State, but above all, it leads to a fellowship and coöperation which are essential to the welfare and improvement of any medical group.

Owing to the increasing interest in the business affairs of our Society, the reports of the officers, committees, etc., are published in the September number of the JOURNAL. This engenders a very desirable interest and stimulates an increased activity on the part of the membership. It is obligatory for the members of the House of Delegates to read these reports, that they may be informed upon a great deal that will demand their official attention. Much thought thus can be given these various matters previous to the meeting of the House of Delegates, and in addition the delegates are afforded an opportunity in ample time to enlighten themselves upon such subjects of which they may have little or no knowledge. The plan of pub-

lishing the reports previous to the meeting should not only expedite the business of the House of Delegates, but increase the efficiency of its deliberations.

The hotel headquarters will be the Hotel Mallow-Sterling. Upon arrival at Wilkes-Barre, each member should pick up his hotel reservation. Registration at headquarters of the State Society, at the Irem Temple, is most essential. Register immediately. The registration booth, which will be open daily throughout the convention from 9 a. m. to 6 p. m., will be located in the Exhibition Hall in the basement of the Irem Temple.

Under the supervision of Peter P. Mayock, chairman of the Committee on Arrangements, 43 South Washington Street, Wilkes-Barre, the Luzerne County Medical Society, the host, has prepared the stage for the meeting. If you have not completed your hotel arrangements, communicate immediately with M. Clark Johnson, chairman of the Committee on Hotels.

Be sure to include in your daily itinerary visits to: (1) The *Technical Exhibit*, which will bring to you the latest achievements in instrument manufacture, apparatus, drugs, and other exhibits of allied interest. (2) The *Scientific Exhibit*, which is of increasing value each year, and contains a wealth of clinical material and practical demonstrations. (3) The *Motion Picture Exhibit*, which is always thoroughly profitable.

The Woman's Auxiliary has arranged a very alluring program, which should appeal to the women, and create in them the urge to attend. The sessions of this group have assumed gigantic proportions, and their endeavors are far-reaching.

Those who anticipate motoring to Wilkes-Barre will find a road map on page 1022 of this JOURNAL. The scenery is gorgeous.

In order to make the Convention machinery function with the least amount of friction, members are urged to be seated promptly at the various meetings. More especially is this of import at the opening day of the General Session. It is not unusual for the General Session to be delayed half an hour in opening. This is a discourtesy to the laymen who have accepted a place on the program. They have other appointments and should not be unduly detained because of our indifference to conventionalities.

Presiding officers of the various sections

should call the meetings to order on time. If the members realize this is the orderly procedure, they will be punctual in arriving.

Make every effort to attend the Convention!

SPEAK TO BE HEARD AT SOCIETY MEETINGS

We are extremely eager to secure the coöperation of our members to speak sufficiently loud to be heard by those assembled for the respective meetings.

Remember that the assemblage in a room wants to hear, this is why they attend, and all speakers should regulate their voices that those present may have no difficulty in hearing. To travel the distance many do to attend the annual meeting to listen to certain papers and not to be able to hear the speaker is disheartening. There is no excuse for poor articulation.

There are some men who speak in public in a low tone, who normally have a weak voice, who do not bear in mind that they are addressing an audience, and hence, never seem to realize the necessity for raising their voice.

There is the individual who invariably looks at the floor, when speaking, and to add to the difficulty of transmitting the voice, walks to and fro.

We beseech the attention of the members to this very important detail. We would urge all speakers to stand firmly on their feet, keep their head raised, and speak sufficiently loud that the farthest away person in the audience may hear. This is imperative.

If members are unable to hear a speaker, they should have no hesitancy to arise to a point of order, and request the speaker to speak more loudly. To call out "louder" from the audience is not always met with response.

Section officers should be alert in this matter, and sense the situation, and request a speaker to raise his voice. It will greatly enhance the value of the meetings.

TO THE REPORTERS OF MEDICAL SOCIETIES

We desire to express grateful appreciation to those reporters of the component county medical societies who have been most loyal and faithful in sending in reports during the fiscal year which terminates with this issue of the JOURNAL. A greater number contributed than heretofore. May we bespeak your continued interest.

We should like to have all sixty counties regular contributors for the ensuing year. There is no reason why it should not be consummated.

The publication of the reports of the meetings of our county societies constitutes one of the most valuable departments of the JOURNAL. These reports show what is being done in scientific medicine in the respective counties, and relates many of their activities. When filed, they constitute permanent records of inestimable value to the historian.

The reports constitute a wonderfully compiled monthly released postgraduate course for our members. It must have been a great source of satisfaction to President Donald Guthrie of our State Society as he read these voluminous reports during his tenure of office, in keen appreciation of the loyalty of the reporters of enhancing his program of postgraduate instruction.

We are grateful too in full measure to those divers reporters of other medical meetings so essential as an integral part of the JOURNAL. They have been most willing, and their spirit of coöperation worthy of emulation.

REPORTS OF OFFICERS, COUNCILORS, COMMITTEES, AND COMMISSIONS

REPORTS OF CHAIRMAN OF THE BOARD OF TRUSTEES, EDITOR, COMMITTEES AND COMMISSIONS

The original reports should be read by our membership for their general information, and by the members of the House of Delegates to expedite business at the annual meeting of the House.

Report of the Board of Trustees.—All members of the State Society are urged to read this report that they may be enlightened as to the constitutional functions and accomplishments of the Board of Trustees. If the members would keep informed of the activities of the Board unnecessary criticism of the Board would be avoided.

Report of Councilor George C. Yeager, First Councilor District.—The report pays tribute to the late George A. Knowles former trustee and councilor for the district; and records many activities of the Philadelphia County Medical Society.

Report of Councilor Edgar S. Buyers, Second District.—Six suits were filed for alleged malpractice; 2 were nonsuited, and 4 are pending. The histories of 4 counties have been presented; in 1935 the 6 counties of the District will have completed their histories. All the other Districts should initiate this procedure, which would be a great aid to future historians of the State Society.

Report of Councilor Frederick J. Bishop,

Third District.—The county societies in the District responded acceptably for all State Societies' activities. One suit was filed for alleged malpractice.

Report of Councilor E. Roger Samuel, Fourth District.—This District has satisfactory results in graduate instruction and the Commission Meeting Plan was approved.

Report of Councilor Clarence R. Phillips, Fifth District.—All activities are constructive, and seminars are being planned.

Report of Councilor Augustus S. Kech, Sixth District.—Progress in activities has been marked notwithstanding keen disappointment due to unfortunate misunderstandings which are inevitable when many new projects are to be initiated.

Report of Councilor David W. Thomas, Seventh District.—Meetings, seminars, and other activities very satisfactory.

Report of Councilor George A. Reed, Eighth District.—There were no suits filed for alleged malpractice. Three out of 7 counties in the District are inactive as regards the Child Emergency Health Program.

Report of Councilor Alexander H. Stewart, Ninth District.—Many difficulties were encountered in projecting certain activities of the State Society; little interest was shown in postgraduate work.

Report of Councilor Robert L. Anderson, Tenth Councilor District.—The Councilor Commission not only has developed a closer relationship between the State Society and the component county societies of the district, but has provided for a closer interrelationship between the county societies themselves. The councilor considers that the most important accomplishment of the year was the establishment of the Joint Conference Committee in Allegheny County. Officers especially of all the other county societies should read the report for information incident to the details thereof. One case of alleged malpractice came to trial, a verdict for the physician being given.

Report of Councilor Arthur E. Crow, Eleventh Councilor District.—Councilor Crow urges unanimity of action in the "New Deal" period. He considers that Fayette County in his district is outstanding of all the county societies of the State in Emergency Child Health Committee activities.

Report of Committee on Medical Economics.—The membership is urged to read this report in full for general information and guidance. Our membership must keep in touch with the activities of this Committee, more especially in the present crisis.

Report of the Editor.—A plea is made for every member to read regularly each issue of the

JOURNAL for the special and general information afforded in scientific and organized medicine.

Report of Medical Advisory Committee to the State Emergency Relief Board.—Every member of the State Society whether participants of the endeavor or not should read this report for the wealth of information it contains. Our members must bear in mind that the plan of Unemployment Relief was devised as an emergency measure, and this Committee is convinced that, due to continued unemployment, some permanent plan will evolve therefrom.

Report of Committee on Conservation of Vision.—The Committee urges all the county medical societies that have not done so to appoint at the earliest moment a local committee on Conservation of Vision, as requested some time ago in a letter directed to the secretary of each county society, and each committee to become ardently enthusiastic in its activities.

Committee on Medical Benevolence.—This Fund is in need of greater support. All members should show more practical interest. Without doubt increasing demands will be made during the next year.

Report of Committee on Appendicitis Mortality.—This committee shows marked activity and most efficient support by a diversity of interests.

Report of Commission on Cancer.—This commission lost by death its chairman, Jonathan M. Wainwright, who guided its activities since its inception in 1909.

Progress Report of the Chairman, Emergency Child Health Committee.—This report should be read by all members for the information it contains. The committee urges the periodic health examinations of all children.

Report of Committee on Public Health Legislation.—The membership should read this report in full for general information and guidance, in view of the fact that the State Legislature will be in session in 1935 our membership must keep definitely informed of their need for coöperation on bills that will appear before the State Legislature.

Report of Committee on Public Relations.—The members are urged to read this report for the information it contains.

Report of Committee on Pediatric Education.—The committee will offer to the various county medical societies, clinical and didactic hours in their respective counties.

Report of Committee to Confer with Governmental and Private Health Agencies.—The membership is urged to read this report for the information afforded.

Report of Workmen's Compensation Committee.—The membership should read this informative report.

TRIBUTE PAID TO THE MAYOS

On Aug. 8, 1934, President Franklin D. Roosevelt delivered an address at Rochester, Minn., incident to the presentation of an American Legion citation to the two Mayo brothers for their services to the American soldier. There were about 25,000 assembled to witness the ceremony.

In his address, President Roosevelt said, "Those of us who are concerned with the problems of Government and of economics are under special obligation to modern medicine in two very important respects. In the first place, it has taught us that with patience and application and skill and courage it is possible for human beings to control and improve conditions under which they live. It has taught us how science may be made the servant of a richer, more complete common life. And it has taught us more than that, because from it we have learned lessons in the ethics of human relationships—how devotion to the public good, unselfish service, never-ending consideration of human needs—are in themselves conquering forces. Democracy looks to the day when these virtues will be required and expected of those who serve the public officially and unofficially. Modern medicine has set an exalted example. It has shown the way for us all."

JONATHAN MAYHEW WAINWRIGHT, A.B., A.M., M.D.

Jonathan Mayhew Wainwright, surgeon, soldier, author, died Aug. 3, 1934, at his home in Scranton from general abdominal carcinomatosis, aged 60. Realizing he had possible serious abdominal disease, Dr. Wainwright was admitted to St. Lukes Hospital, New York City, about two months previous to his death, when an abdominal exploratory operation revealed the true condition.

He was born in Hartford, Conn., Feb. 20, 1874, the son of William Augustus Muhlenberg Wainwright and Helena Barker (Talcott) Wainwright. Dr. Wainwright bore the name of his paternal grandfather who was a bishop of the Episcopal Diocese of New York, and a paternal uncle who was a Commander in the United States Navy.

His preliminary education was obtained at the Hartford (Conn.) High School, and received his A.B. degree from Trinity College in 1895,

which college in 1905 conferred upon him the degree of A.M. He was graduated from Columbia University College of Physicians and Surgeons, 1899. His internship was served at St. Lukes Hospital, New York City.

In 1901, Dr. Wainwright accepted the appointment of surgeon-in-chief of the Moses Taylor Hospital, Scranton, which he continued until the time of his death, and began practice in that city, of which he was one of its most distinguished citizens. A member of the Lackawanna County Medical Society, its president in 1910; State Medical Society; Fellow of the American Medical Association; member of the American Surgical Association; member of the New York Academy of Medicine; Fellow of the American College of Surgeons, and a member of the American Society for the Control of Cancer.

Dr. Wainwright was very active in his county and State medical societies. He served for a time in the House of Delegates of the State Society, and for twenty-five years was chairman of its Commission on Cancer, effectively discharging the arduous duties incident thereto.

From the time of graduation from medical school he was intensely interested in cancer control and he devoted a great deal of time to cancer research at a personal sacrifice of his surgical practice. These studies were first carried on in the laboratories of the Moses Taylor Hospital, and later continued in a special laboratory, the gift of Mrs. Moses Taylor. For a number of years he served as a director of the American Society for Cancer Control, in 1930 was elected its president, and was on the board of directors from the time of the organization of the Society until his death.

He was very insistent that a tumor clinic be established in every hospital of this Commonwealth, and worked indefatigably in this endeavor.

Dr. Wainwright initiated the movement which gave the West Mountain Tuberculosis Sanatorium to the City of Scranton and devoted much time to its activities.

Dr. Wainwright was a veteran of two wars. His military career began in 1892 when he became a private in Company F, First Regiment, Connecticut National Guard, later becoming corporal on the regimental staff, a rank he held for one year, when he was promoted to first lieutenant, which rank he held for four years, at the same time discharging the duties of paymaster. At the outbreak of the Spanish-American War his regiment was enlisted as the First Regiment Connecticut Voluntary Infantry, and he was commissioned as captain. This regiment did not see active service, but was held at Camp Alger,

Falls Church, Va., in which he served as adjutant of the regiment, also as acting assistant adjutant general of the First Brigade, Third Division, Second Army Corps. At the end of the war he was honorably discharged from the service.

During the World War he was commissioned a major in the medical corps of the United States Army, Sept. 17, 1917, and assigned to Camp Greene, Charlotte, N. C., in which he remained until August, 1918, when his rank was advanced to lieutenant-colonel, and he was assigned to overseas service and given command of Base Hospital, No. 54, at Mesves, France. When Colonel Wainwright took command the base hospital was still receiving wounded from the battle of Chateau-Thierry. The Argonne drive began soon after his arrival and the hospital, with ordinarily 2000 beds, was increased to 2300 bed capacity. The stream of wounded pouring in from the Argonne was constant, and for weeks Colonel Wainwright worked almost without let-up. He made an enviable record in France, and upon receiving orders to return to the United States he was presented with a watch by the medical personnel of the hospital at Mesves and with a watch chain by the Red Cross nurses of the hospital. He returned to Scranton on April 21, 1919, after being honorably discharged from military service.

Dr. Wainwright had a few hobbies: His model farms in Connecticut; his stamp collection is of philatelic value; and as a big game hunter he invaded the wilds of Africa.

Dr. Wainwright was married on May 30, 1901, to Miss Jessie Hart, of Englewood, N. J.; there are two sons and a daughter, one of whom, Talcott Wainwright, M.D., was graduated from Columbia University College of Physicians and Surgeons, 1933, and served his internship at the Moses Taylor Hospital; all of whom survive.

Dr. Wainwright was a member of the Army and Navy Club, New York City, and the Scranton Club.

Dr. Wainwright was a man of broad cultural education, a learned diagnostician, an ethical and charitable practitioner, a considerate and loyal friend, a useful, brave and outspoken citizen.

JOHN BERTON CARNETT, M.D.

John Berton Carnett, M. D., of Philadelphia, died in the Graduate Hospital, July 29, 1934, from pneumonia after a week's illness, aged 58.

Dr. Carnett was born in Williamsport, Pa., Oct. 30, 1876, and received his early education in the Wellsboro grade and high schools. He was graduated from the University of Pennsylvania Medical School, 1899.

While at "Penn" he showed his prowess as a versatile and accomplished athlete. For three years he was on the varsity football team, teams that made football history for their alma mater. Among his team mates were Truxton, Hare, Jack Minds, "Buck" Wharton, John Outland, W. G. Woodruff, Pete Overfield, "By" Dickson, and Nate Folwell; names to conjure with when the pigskin oval was concerned. Upon graduation, Dr. Carnett for a time had charge of the linemen at the University, and was the team's physician; and also coached football teams at the U. S. Naval Academy and Virginia Military Institute.

During his sophomore and junior years he rowed on the varsity crew.

He served overseas in the World War. In 1916, Base Hospital, No. 20, was organized at the University of Pennsylvania, and Dr. Carnett was appointed director, with the rank of lieutenant-colonel. He assisted in raising more than \$150,000 to purchase equipment, and recruited the personnel of 25 officers, 65 nurses, and 153 enlisted men. The hospital was established at Chateau Guyon, France. To show his leadership, Dr. Carnett organized an operating team, which functioned out front, under fire, in five offenses; Lorraine, Champagne, Chateau Thierry, Saint Michiel, and Meuse-Argonne. The entire team was decorated for bravery under fire. On April 19, 1919, he was cited by General Pershing who also lauded the activities of the hospital. The citizens of Chateau Guyon voted honorary citizenship to Dr. Carnett as chief of the hospital.

Dr. Carnett was professor of surgery in the Graduate School of the University of Pennsylvania; surgeon to the Graduate Hospital and the Philadelphia General Hospital; a member of his county and State societies, and the Philadelphia Academy of Surgery; a Fellow of the A. M. A., Fellow of the Philadelphia College of Physicians; member of the Associated Anesthetists of the United States and Canada. He has ably contributed to the medical literature.

He was a member of the Phi Alma Sigma fraternity.

He did much work in surgery, always competent. Of high intelligence, high ideals, high standards, without a trace of timidity, he brought a certain fineness to all he did. He was recognized as a man of integrity, honesty, and sterling worth as a physician, citizen, and friend.

His widow, a son, and daughter survive.

THEODORE H. WEISENBURG, M.D.

Theodore H. Weisenburg, distinguished neurologist, who lived at Paoli, Pa., and conducted

an office in Philadelphia, and who had been ill for more than a year, died from carcinoma at the Graduate Hospital, Philadelphia, Aug. 3, 1934, aged 58.

He was born in New York City, April 10, 1876, and was graduated from the University of Pennsylvania School of Medicine, 1899. From 1901 to 1902 he was assistant surgeon in the United States Army in the Philippines. During the World War (1918-1919) he held the rank of major in the Medical Corps of the United States Army.

He began practice in Philadelphia in 1903. From 1904 to 1907 he was instructor in neurology and neuropathology in the University of Pennsylvania School of Medicine, and in the latter year was made professor of neurology in the Graduate School of the University of Pennsylvania.

He was physician to the Orthopedic Hospital and the infirmary for Nervous Diseases; neurologist to the Graduate Hospital, the Philadelphia General Hospital, the State Hospital for the Insane at Norristown; and consultant to several other institutions.

He was a member of his county and State medical societies; a Fellow of the A. M. A., serving as secretary of the Section on Nervous and Mental Diseases for two years, 1905 to 1907, and in the latter year was elected chairman; a member of the American Neurological Association, its president in 1917; the American Psychiatric Association; the Association of Military Surgeons of the United States, and Fellow of the College of Physicians of Philadelphia. At the time of his death he was president of the Association for Research in Mental and Nervous Diseases.

Dr. Weisenburg was an extensive contributor to the neurologic and psychiatric literature, and was associated with many developments in the treatment of diseases of the nervous system. He was editor in chief of the *Archives of Neurology and Psychiatry* from its foundation in 1919.

He is credited with being the first to make motion pictures of patients for teaching nervous diseases, this work being done in Philadelphia in 1907, in coöperation with the late Sigmund Lubin, the first exhibitions being given in 1908 in this city.

In his discussions he took the common sense view of life, declaring, among other things, in the height of the "modern youth" movement, that the youth of today is the same as the youth of 1000 years ago in all essentials. He also declared in one of his addresses that 20 per cent

of the patients who throng physicians' offices are not ill at all, only imagine they are.

He also pointed out there was a great difference between nervous persons, and "twitchy" ones. Twitchy persons, he said, are diseased; nervous ones form the world's leaders intellectually. "Lawyers, doctors, newspapermen," he once said, "and other highly trained people belong to the nervous class. They are the people who carry the world forward, the men who dare to do and accomplish."

His filial devotion to the late Dr. Charles K. Mills is a cherished memory. He was ever a loyal friend, and always a polished gentleman.

Dr. Weisenburg was married to Miss Constance VanderVeer of Philadelphia, who with a daughter survive.

THE PASSING OF MADAME CURIE

Madame Marie Sklodowska Curie died in France, July 4, 1934, from pernicious anemia, aged 66.

In the death of Mme. Curie the world loses one of the greatest women of all time; a woman whose discoveries and researches revolutionized physics from the scientific point of view, and from the human standpoint, revolutionized modern medicine.

She was born in Warsaw, Poland, Nov. 7, 1867; at age 17 was a governess and received her early scientific training under her father, who was a professor of physics and mathematics in the University of Warsaw. She belongs to the past because of her training and her traditions and to the present because of the tremendous import of her discoveries.

In 1891, she entered the University of Paris, securing a position as a laboratory cleaner, was placed under the tutelage of Professor Pierre Curie, and was married to him in 1895 after obtaining her degree of doctor of science. Professor Curie was killed by a truck in the streets of Paris in 1906, shortly after the Curies announced the discovery of radium. For the following 28 years Mme. Curie continued the radium experiments which she began with her husband, who gave such ample credit to his wife for her part in the work that there can be no doubt where credit belongs for the discoveries ultimately made. Mme. Curie succeeded her husband as professor of physics at the University of Paris and was the first woman to hold such a position there.

The widow was honored by her own and other nations with the highest awards possible; but always she shrank from public view. The Curies received jointly with Becquerel (the discoverer

of uranium), the Nobel prize in physics in 1903; and in 1911, Mme. Curie received the Nobel prize in chemistry.

The University of Paris created the Radium Institute and placed Mme. Curie at the head of the research department, known as the Curie Laboratory, in which she continued active until shortly before her death. In 1907 she was presented with a laboratory by the late Andrew Carnegie, the first real workshop she ever enjoyed.

Mme. Curie made two visits to the United States. In 1921, President Harding presented her at Washington, with a gram of radium valued at \$100,000, in behalf of the women of the American Universities. At this time the Woman's Medical College of Pennsylvania conferred upon her in person, the honorary degree of doctor of medicine. In 1929, she was presented at Washington, with a check for \$50,000 by President Hoover in behalf of her friends. This latter sum she gave to Warsaw, her native city, to promote research in radium. On this visit, Bryn Mawr College presented her at the college with 50 milligrams of esothorium, valued at \$5000.

Two daughters survive.

The whole world bows in tribute to this distinguished scientist, truly a great woman.

VACCINATION AGAINST ACUTE ANTERIOR POLIOMYELITIS

A Statement of Dr. John A. Kolmer's Latest Research

Undoubtedly human beings and monkeys acquire immunity to acute anterior poliomyelitis by an attack of the disease and this has long been the basis of the hope that a method may be discovered for safely and efficiently vaccinating against this dreaded disease which claims so many victims among children.

Furthermore it would appear that the majority of adults develop a natural immunity to the disease because it has been so long known that the incidence among them is always lower than among children and investigations during the past several years have shown the presence in the blood of a high percentage of adults of antiviral antibody. This natural immunity of adults, however, is generally lacking among children and its mechanism is thought to be a process of natural vaccination from repeated contact with the virus or the occurrence of clinically unrecognized attacks although it may be an immunity due to changes in body cells incident to age and designated as "maturation immunity."

Monkeys have been successfully vaccinated against poliomyelitis by subcutaneous or intra-

cutaneous injections of the virus, as shown by the research of S. Flexner and P. A. Lewis, as likewise by injections of mixtures of virus and convalescent immune serum, as demonstrated by W. L. Aycock and J. R. Kagan. But some animals have contracted the disease during the process of immunization so that the methods have not been considered safe for the vaccination of human beings.

Unfortunately vaccines of virus completely killed by heat, phenol, chloroform, formalin, and other chemical agents have proved ineffective, as reported by John A. Kolmer, so that it appears that some living virus in the vaccine is required for effective immunization.

The problem, therefore, has been the discovery of a method for devitalizing or reducing the virulence or infectivity of virus in vaccines without its complete destruction in order to render it safe for human beings while still capable of engendering immunity, since it would appear that some living virus is required for immunization against virus infections. In this connection the situation is exactly similar to that pertaining to vaccination against rabies by the original Pasteur method in which the virulence of the virus in the spinal cords of infected rabbits was reduced by drying. In some respects it is also analogous to vaccination against smallpox in which the virulence of the living virus is altered by passage through the skin of calves or other of the lower animals.

In this connection it would appear that the recent investigations of Dr. John A. Kolmer of Temple University School of Medicine and director of the Research Institute of Cutaneous Medicine, are of great interest and full of hope of safely and efficiently vaccinating against the disease.

Dr. Kolmer has employed vaccines of monkey poliomyelitic spinal cord treated with sufficient sodium ricinoleate to devitalize or reduce the virulence of the virus and reports the successful vaccination of a large number of monkeys without any untoward effects. The existence of the immunity was established by subsequently injecting fatal doses of virus into the anterior lobes of the brain under ether anesthesia, and animals vaccinated over 10 months ago have been found still completely immune. Furthermore two adults, Dr. Kolmer himself and a coworker, found without antiviral antibody in the blood, were given four subcutaneous injections of the vaccine at five-day intervals without the slightest untoward effects other than some soreness at the sites of injection and a week after the last dose were found to have large amounts of antiviral antibody in their blood. A complete de-

scription of the methods and results is to appear shortly in the *American Journal of Medical Sciences*. Last year Dr. Kolmer succeeded in safely vaccinating three monkeys with the ricinoleated vaccine but more convincing results were obtained during the past year with a stronger vaccine.

It is still too early to express an opinion on the safety and efficiency of the method but the results reported to date excite great hopes for a successful and safe method for vaccination of children against this dreaded disease. If children between age 1 and 10 years can be successfully and safely vaccinated over the period of their greatest susceptibility it will be a notable achievement, as natural immunity may afford additional protection over adult years.

At the present time it is stated that Dr. Kolmer is vaccinating a large group of children at Temple University Hospital under well controlled conditions and the results of this additional study will be awaited with great interest.

COMMENTS AND EXCERPTS

Science and Research

The results of a CWA traffic study conducted by Charles W. Frank, Massachusetts Institute of Technology, showed that women, on the average, reacted more slowly than men in jamming on brakes to avoid hitting an automobile ahead of them. Mr. Frank devised an electric measurer of the speed of response of men and women to visual and audible impulses. This device was used to measure the time interval between the instant of application of the brake in one car and the instant the operator in the car following notes the act and applies his brakes. The tests showed that the time consumed averages about six-tenths second for men and about eight-tenths second for women, if the cars are equipped with stop lights. If the cars are not equipped with stop lights, the time is more than twice as long. The time intervals obtained by Mr. Frank in the traffic studies are much larger than the reaction times obtained when keys are pressed by individuals in response to a warning light or sound.

Dr. William D. Castle, of Harvard Medical School, claims that all the vitamins in the world will not keep one healthy if one's digestive system is deficient and fails to react properly with the vitamins. According to Dr. Williams this accounts for the occasional development of a disease like pellagra in persons who eat a diet containing plenty of the pellagra-preventing vitamin G, for example.

Dr. Henry Wenker, working independently in his private laboratory, has discovered a new chemical, nitrazine yellow, which is claimed to have advantages over litmus for indicating the difference between acid and alkaline solutions at low concentrations. Nitrazine yellow is distinctly blue in a solution of alkali; in an acid solution the indicator turns bright yellow. The color contrast is somewhat sharper and as an indicator it is more delicate than is litmus.

Dr. John A. Larson, of the Institute for Juvenile Research, Chicago, reported to the American Psychiatric Association, that fear of capital punishment does not stop a murderer. Dr. Larson studied the personality make-up of 800 murderers in Illinois prisons for crimes, ranging from assault with intent to kill to actual homicide. He found that capital punishment is apparently no deterrent to the group. Almost one-half of the murderers were found to be emotionally unstable, and that there was a marked increase in acute mental disease and breakdown, especially in the group of first offender murderers and accidental offenders. Dr. Larson claims that psychiatric treatment and reeducation can accomplish much with the assault-murderer type of offender. He found that the underlying factor which caused these prisoners to turn into murderers could be found in deteriorated neighborhoods and in alcoholism which brought about disorganization of the home.

MEDICAL ECONOMICS

Abstract of the Report of President Frederick H. Flaherty of the Medical Society of the State of New York

Medical economics are being discussed in every group of physicians in which more than 2 or 3 are gathered. Hospitals and dispensaries are accused of infringing upon the rights of the physician. Outpatient departments, it is claimed, are treating many individuals amply able to pay the physician. The hospital, as a corporation, is accused of practicing medicine. For example, the permitting of a department such as the roentgen-ray department, to treat outside private patients, make a diagnosis, charge a fee for such service and pay the physician on a salary basis, thereby becoming an unfair competitor of the physician who, at considerable expense, has prepared and equipped himself for this service. Large medical centers with their great organizations are receiving considerable criticism from the profession. They, also, often disregard the ability of the patient to pay and accept many cases in free wards, who are amply able to pay, in order that they may fill their beds and carry needed "clinical material." This same criticism is made against the municipal hospitals in allowing the well-to-do free service and free hospitalization.

In the "new deal," which the present administration is endeavoring to put over, unfair competition in business, in trades, and in all activities of the public, is to be eliminated. The working of the Compensation Law has received its share of criticism in its discrimination. Lay organizations are believed to be interfering with certain functions of the practice of medicine in their efforts to socialize medical activities. The Health Departments are accused of practicing medicine. The State is accused of unfairness in its methods of handling the compensation care of the indigent.

It is quite apparent that considerable progress has been made this past year. Many clinics have taken measures to eliminate the individual, who is able to pay, from receiving free service. It may not be apparent in some sections but in many localities there has been definite improvement. The change, which Dr. Goldwater brought about in New York City whereby the city-owned hospitals can no longer care for compensation cases and receive for surgical services the fees which should go to the physician, is a bright spot on the horizon.

It is the function of the State to protect the public. The Health Department is called upon, should life and death be involved, to perform this function. At times the activities of the Health Department may appear to encroach upon the rights of the private physician. It is gratifying to note the policy of the health authorities to coöperate with and adjust the differences which necessarily must arise from their contacts with the profession. There are many medical activities which the State, in protecting the citizen, must perform. On the other hand, there are many functions which the family physician should be given the privilege of performing—examination of school children, the administration of toxin-antitoxin, vaccination, and many other like activities.

There is a definite effort by certain well-meaning laymen to establish socialized medicine in this country. We are familiar with what socialized medicine means to Russia and Germany. It would require another revolution in Germany to place the medical practice back on the high level it enjoyed before the present régime. It is apparent that organized medicine in New York State could be greatly improved if every county society could be so organized that a meeting be held at least each month during the year excepting in June, July, and August. This would stimulate more interest in the program and work of the society.

There is a feeling among certain county societies that the dues are a burden. Whatever the county society dues may be, the state society receives \$10 from each member. The \$10 gives a directory to each member in the state with enough information concerning each member where and when he was graduated, his special work, and his hospital connections; he receives a Journal twice each month which keeps him in touch with the various activities of the state society. Every member in good standing has legal protection and counsel by a high grade attorney if sued for alleged malpractice; this service alone is worth what is paid. It does not furnish indemnity in case of a verdict. Those who desire to protect themselves in case of a verdict, must insure in the insurance company designated by the state society.—*New York State M. J.*, April 15, 1934.

Additional Articles on Medical Economics

Lehigh County—p. 1108.

Seventh Councilor District Meeting—p. 1110.

MEDICOLEGAL NOTES

Death of Infant Following Delivery.—A woman about age 26 came to the office of Dr. B. and informed him that she was pregnant and desired to be confined. Upon examination it was disclosed that she was about 6 months pregnant and normal. The doctor saw her several times thereafter, and finally one night about 3 months later she called at his office at 11 p. m. and stated that she was in labor.

The doctor ordered her into a hospital and upon examining her failed to hear the fetal heart and advised immediate delivery. Under general anesthesia a female child was delivered with low forceps. The child was not breathing and was cyanotic. Artificial respiration was given using oxygen and applied warmth. The placenta was expelled intact normally. The child was revived sufficiently to breathe, but she could not retain nourishment. A pediatric specialist was called, but the child died 2 hours later.

An action for malpractice was brought against Dr. B., and after extensive negotiations with the attorney for the patient, and as the case was about to go to trial, the

suit was dropped, thereby exonerating the doctor from the charge of malpractice.—*New York State J. Med.*, Aug. 15, 1934.

INDUSTRIAL MEDICINE

Medicine in Industry

Mervyn Ross Taylor, M.D., Philadelphia, medical officer, Bell Telephone Company, in an address delivered at the Tenth Annual Session, Pennsylvania Public Health Association, 1934, says in part: The problem of occupational disease is one of the foremost within the range of our present industrial vision. It is true that a decade or two ago the scope of a company surgeon's work seldom extended beyond the care of accidental injuries. In other cases he contracted with the industry to render complete medical service not only to the employees but to their families as well. This involved every form of medical attendance, including medicines, for which the industry deducted an amount from the worker's pay each week to meet these costs. Means for laboratory assistance as an aid to diagnosis were seldom available, and if undertaken were most inadequate and often unreliable. Practically no attention was given to plant safety, hygiene, or to the lessening of occupational hazards. The doctor's day was too full to permit giving such matters his attention; besides, the industry did not employ him for such purposes. This was the so-called type of contract practice now fallen, and wisely so, into disrepute.

Out of this past has evolved a new order of things. First, a new type of industrial physician, one whose endeavors point not so much to the treatment of afflicted workmen as to the prevention of accidents and disease. Second, industry now demands safety and prevention, and looks to the plant physician to study these problems and show results.

Many serious though interesting problems still face the modern industrial medical field. One is the educational preparedness for this special work. The vast majority of men now engaged in this medical industrial pursuit secured their training through the school of experience. They took their medical knowledge and their natural ability into the industry and there built up an experience upon which practically all our information regarding the organization and administration of this activity is based. Until a physician or surgeon has had this experience he cannot appreciate wherein industrial medicine differs from that of private practice.

Several universities and colleges teach industrial hygiene and several have lately extended their curriculum to include instruction in industrial medicine. There are still too few colleges in which a comprehensive knowledge of this special work may be obtained, but until more colleges offer students in medicine this special instruction, industry must be content in obtaining physicians without specialized knowledge beforehand and trust that perhaps through long years in the school of experience observing and studying the industry's several complicated processes, ultimately an efficient and valuable medical officer may develop. Today, without special training, the type of physician who is attracted to this work has greatly improved, so that in contrast to the near past there is evolved a new type of industrial physician who, at the outset, realizes he is undertaking one of the most important types of human conservation movements and which is a far-reaching arm of public health work.

All the larger, more important and most progressive industrial enterprises in this country and abroad now have their medical organizations. These are not of the

makeshift type. Big business more and more realizes that human waste is not economical. Hence, it is demanding a type of medical organization which aims to protect the employees' health and maintain it in the highest state of working efficiency. In turn, this means to the employee greater production, higher morale, greater contentment, increased earning capacity and less absence due to sickness and accidents.

No medical supervision in industry is complete without a periodic survey of the plant, a study of its working processes and a knowledge of its raw material and by-products, all of which are so important in determining the hidden causes of many occupational diseases and intoxications. Besides those mentioned, there are many other functions which the trained medical staff must institute in order properly to function and bring results in a comprehensive industrial health program.

Most important is the applicant's physical examination. This ascertains the individual's physical fitness for work. It prevents the entrance and spread of contagious disease. It enables the applicant to be placed safely at a type of employment suitable and not inimical to his health, especially if he should be physically handicapped in any way. Careful note is made at this time of his physical defects, and advice is given him of any recommended corrections. To such an examination many thousands of workers in industry owe their present state of good health, for had they not been urged before or shortly after employment to have these defects corrected, when correctible, organic disease, doubtless, would have soon made serious inroads upon their health.

The periodic physical examinations function in the same way except that these, in addition, give the industrial physician an accurate health map of the entire industrial organization. Those employed in hazardous occupations may have to be examined quarterly or more often to determine early signs of occupational disease. Those employees off duty because of illness or accident are routinely examined before being allowed to return to their work. By this procedure many an employee has not been permitted to resume his or her work by the plant physician when they had already received the approval of their private physician to do so. The private physician in such a case obviously had no knowledge of the nature of the worker's job, the materials handled, the conditions under which he worked or the operations and activities he would be called upon to resume. Thus, many cases of relapsing illness are prevented by the plant physician and by his good judgment in recommending a further leave of absence to the employee until completed convalescence had been secured. Many other employees examined are given half-time work for a number of weeks or modified full-time work of an easy nature in order to insure their gaining a full momentum in strength to carry them safely over the top before they assume the full burden of work.

Another widespread industrial hazard demanding the increasing attention of industrial physicians in certain industries is silicosis, causing an appreciable increase in the death rate from ultimate pulmonary tuberculosis among those exposed to this form of dust.

Diphtheria is a disease requiring constant alertness on the part of the physician in industry to prevent its becoming epidemic. Every employee reporting with a suspicious throat condition is taken away from work, his throat is cultured and all other employees who have been closely associated with him are given the Schick test or immunized as well as being closely observed for several subsequent days.

One of the most obstinate conditions to prevent in certain manufacturing establishments is dermatitis. Forty or more diseases of the skin have been definitely found to have industrial origin; and 10 per cent of all skin diseases are definitely occupational dermatoses.

Industrial medicine is assisting in the prevention of allergic asthma, which is on the increase, largely because of individual susceptibility to certain atmospheric conditions involving chemical fumes, minerals, and foreign proteins thrown into the air in manufacturing establishments.

Tetanus now seldom develops from industrial accidents. Workmen receiving puncture wounds and other wounds of a suspicious character receive routinely an immunizing dose of antitoxin; others, whose environment and type of work expose them to this form of anaerobic infection, as in soil handlers, are given tetanus toxoid to create a more lasting immunity.

The common cold, possibly the greatest single contributing factor to illness and lost time, causing as it does millions of hours of absence from work, has not been overlooked in our preventive industrial program.

For industry to obtain the best results the physician must be highly trained in his specialty. His knowledge should include mechanical processes, toxicology, and psychology. For industry needs medical aid not only in caring for accidents, but in meeting the threat of its occupational disease, as well as in all its activities involving personnel.

The medical profession at large must recognize this specialty and all that it implies with full respect. Industrial medicine on the other hand must keep within its specialistic bounds and never encroach upon the true prerogatives of the private doctor, if it is to live up to its highest traditions.—*Pennsylvania's Health*, July-August, 1934.

HOSPITAL ACTIVITIES

Are Hospitals Too Humanitarian?—A successful business man was discussing hospital problems with Dr. Frank J. Walter, superintendent of St. Luke's Hospital in Denver, and retiring president of the Colorado Hospital Association. He told Dr. Walter that hospital executives stress the humanitarian principle too strongly, and said the hospitals would be much better off if run on the cold maxims of business. What Dr. Walter thinks of that idea he told in an address before the Association.

All recognized ethical hospitals, he remarked, are for the most part alike in equipment and facilities for the care of their cases and in the type of nursing service given to the patients. What is it, then, which makes certain hospitals the most outstanding in the minds of the public? It is the spirit of humanity which is more fully practiced in these hospitals than in the others. These hospitals are the ones which anticipate their communities' needs and present ways of meeting them. These hospitals are able to keep themselves free from political interference both within and without. These hospitals are continually striving to make their communities health-conscious. These hospitals even in this time of business stress and uncertainty are not sacrificing their scientific programs in promoting their economic interests.

Without the spirit of humanity each hospital of the community, or of the nation, would be an independent, self-centered, uncoöperative unit; the scientific advancement for the care of the sick would be practically at a standstill. There has developed, in the code of ethics among the professions caring for the sick, an unwritten

principle that any discovery which will either aid in therapeutic treatment, or will expedite the administering of such treatment to patients, shall not be withheld or commercialized by the discoverer, but shall be freely given to the medical group so that all may benefit thereby. Without the spirit of human kindness there would not be this willingness of one individual or institution to share this knowledge and experience for the good of the whole. Without it, the common law of courtesy, demanding that one hospital superintendent reciprocate in extending support and kindness to other hospital executives who have performed similar services and courtesies for him, would not be exercised.

The entire system of voluntary hospitalization is built upon the spirit of humanity. Without it this system would collapse. State medicine would then be a reality, since the private hospital is the only bulwark against it.—*New York State J. Med.*, Aug. 15, 1934.

Eight-Hour Day Service for Nurses.—The rapidity with which hospitals are adopting the 8-hour day for special-duty nurses is indicative of the satisfaction this innovation is giving. In greater New York alone, 11 of the larger hospitals have introduced this reform and the *New York Medical Week* reports that it is giving general satisfaction to patients, doctors, and nurses.

The 12-hour shift is incompatible with the modern trend to a shorter working day. Naturally the latter leaves the nurse fresher and more alert; and the patient's response to this is quick and favorable. Far from resenting the appearance of a third nurse on the scene, most patients appear to welcome the change as a break in the inevitable monotony of hospitalization,

Judiciously handled, the 8-hour day need involve no added expense to the patient or the hospital. The fee of the individual nurse is naturally less and the food allowance is reduced; 8-hour workers are not paid for 3 meals each. The patient is therefore assured of better nursing service at no greater cost and employment is created for a large number of nurses who have suffered greatly from the enforced idleness of the past few years.

The attitude of physicians toward this innovation reflects the favorable response of patients, and nurses. As long as standards of service are not lowered, the medical profession is glad to cooperate in securing better working conditions for one of its most valued aides.—*New York State J. Med.*, Aug. 15, 1934.

New Jersey Hospitals Hear Medical Points of View at Meeting.—The tenth annual meeting of the New Jersey State Hospital Association was held at Atlantic City, June 8 and 9. Dr. Walter B. Mount, chairman, Essex County Prenatal Welfare Commission, in discussing the high death rate in maternity cases, referred to the publicity which has recently been given the subject, and suggested that the facts are not always clearly understood. He urged the broadest possible educational work to expectant mothers through visiting nurses, newspapers, and other media as well as instructive talks at prenatal clinics, and the utmost care to prevent infection in the hospital, quoting Dr. DeLee's dictum that maternity hospitals should be physically separated from all other buildings.

He referred also to the desirability of having cesarean and other operations incidental to maternity work done only by qualified men, and commended the plan put in force at the Elizabeth General Hospital by Superintendent James R. Mays for the grading of the staff as to proficiency. Mr. Mays told of the experiment in his hospital 2 years ago of grading the staff, on its actual record, into 3 classes, with little trouble, and with definite improvement in service. A discussion of

the desirability of giving some training to midwives came up, Mr. Mays criticizing any cooperation with a class which has been responsible for so much maternal mortality, while Dr. Cosgrove pointed out that as they are licensed by the state, and serve thousands of the foreign-born population, it is better to give them some help than to let them work in ignorance.

The address of Dr. Thomas Lewis, chairman, Medical Practice Committee of the Medical Society, on "Hospital Dispensaries and the Medical Profession," brought out the well-known medical point of view and the somewhat opposed view of the hospitals. Dr. Lewis made the just criticism that there is a growing feeling on the part of a larger section of the public that the dispensary is for them without regard to ability to pay, and also pointed out that lack of adequate investigation by clinics has fostered this feeling. On the other hand, he suggested that the private physician should improve his service in such respects as giving the simple laboratory tests and offering complete health examinations.

He reviewed the recommendations by the medical society regarding clinics, to the effect that they should serve only the indigent, that they should be controlled and served by the hospital's medical staff, with proper rotation of service and that they should make only nominal charges, with drugs at cost.—*Hospital Management*, June, 1934.

PUBLIC HEALTH

An Important Duty

A Baltimore morning newspaper, Wednesday, Aug. 8, 1934, contained the following editorial:

One of the most important duties that devolves upon modern society is the proper care of those mentally diseased and afflicted.

Psychiatrists say that mental diseases are increasing. Only by the most modern methods and by unremitting care and attention can the public be protected and posterity safeguarded from this great menace.

It was only a few years back that the insane and the feeble-minded were treated as criminals, loaded with chains and confined in dark dungeons.

Civilization has advanced a lot since that day. Mental diseases are no more a "disgrace" than physical diseases.

Mental diseases, in many instances, can be cured, but almost invariably this involves hospital treatment.

Under the Maryland law, the state is required to care for its insane. Maryland's hospitals for such unfortunates are modern and in a high state of efficiency.

But, according to figures presented by Dr. George Walker, 10 per cent of the insane who are public wards are in City Hospitals, which are not properly equipped to handle them.

The General Assembly should provide for the transfer of these patients to State hospitals, where they can be treated properly. The law requires it. Humanity and public opinion demand it.

Saving the Eyesight in Children

According to an article by Dr. Samuel Horton Brown, published in a recent issue of the *Children's Aid News*, the Committee on Conservation of Vision of The Medical Society of the State of Pennsylvania has recently launched a State-wide project which has for its principal purpose the placing of its entire resources for the conservation of vision, especially in the child group, at the convenient disposal of the population of the entire

State. Even the more densely populated communities show a lack of adequate information as to facilities of the highly trained eye physicians, and accept indifferent service of one kind or another. In addition there is also a large group of adults as well as children, receiving no attention at all. The State Committee on Conservation of Vision will be composed of local county committees, the members of which will be informed of the conditions existing in their respective communities. They will also be urged to acquaint themselves with the individuals engaged in various welfare enterprises, and the latter will be encouraged to utilize the accredited eye physician in the make-up of their educational programs. It is only through these controlled groups that the physicians can with dignity give appropriate publicity to a project of this character. An up-to-date directory of eye physicians will be prepared, which will not only be of value to the agencies but will pave the way for a better distribution of these highly trained men. The problem among children of the early school grades is especially acute and the numbers involved overwhelming. Eventually all welfare agencies will be participating.

The Growing Menace of Diabetes

Dr. Edward S. Dillon, chief, Division of Metabolism, department of medicine, Philadelphia General Hospital, states the diabetes mortality during 1932 reached the highest rate on record in the experience of this country or any other, and the diabetes mortality rate of the United States at the present time is the highest of any of the representative nations of the world.

Though the total number of persons having diabetes only can be guessed at, the number reported as dying each year is accurately known, and that this number has been rapidly increasing is a matter of concern. For 50 American cities the death rate per 100,000 has increased from 15.9 in 1912 to 26.3 in 1932, and this increase occurred in spite of the vast improvements in the therapeutic armamentarium which occurred within those years. Diabetes as a cause of death is now surpassed only by degenerative diseases of the heart and arteries, acute respiratory infections, cancer, tuberculosis, and accidents.

During the 18 months from Jan. 1, 1932, to July 1, 1933, there were 725 patients admitted to the wards of the Metabolic Division of the Philadelphia General Hospital, with 117 deaths.

Diabetics should never progress to acidosis, and to avoid this it is important to realize that not only must a patient not break his diet-insulin regimen, but that any infection occurring in a diabetic promptly damages the carbohydrate tolerance and makes the diabetes worse to such an extent that in many cases coma soon results. It is important to realize also that the initial symptoms of an oncoming coma are usually nausea, vomiting, and abdominal pain, with which is often associated a marked leukocytosis. Diabetic coma may well be regarded as the greatest of all medical emergencies, and the patient should be promptly hospitalized. The services of a doctor, 2 nurses, and a laboratory technician are likely to be required continuously for the first 8 or 10 hours after the patient is admitted. Though most coma cases recover if adequately treated, nevertheless the prognosis is always serious, and depends upon the severity of the acidosis and the duration, the degree of dehydration, the state of the heart and kidneys, and the severity of concomitant complications.

Diabetics should not die of gangrene. Long continued, inadequately controlled diabetes usually results in severe

arteriosclerosis. Diabetic arteriosclerosis has a marked predilection for the coronary arteries of the heart and for the arteries of the lower extremity. Diabetic retinitis and cataracts, resulting in partial blindness, also frequently are seen. If the arteries of the feet and legs are involved, the blood supply is markedly diminished and the vitality of all the tissues impaired. Callosities, corns, bunions, blisters, ingrowing toe nails, trauma, and even moderate extremes of heat and cold should be avoided if possible. If a lesion does occur, it should be treated with surgical asepsis and strong antiseptics should not be used. Advice to a diabetic that he should keep his feet as clean as his face is sound advice. If infection takes place, the situation is always far more serious than in a nondiabetic. The most important single procedure is to get the patient off his feet at once. Any case showing fever, or in which the infection is spreading, should be hospitalized without delay. Most cases which seem to be less serious, but which fail to improve within a few days after treatment is instituted, also should be hospitalized. The practice of allowing a diabetic with an open or infected lesion of a toe or foot to continue his usual mode of life, with his lesion covered with an ointment and bandage, is fraught with danger. The complications of diabetes are not only dangerous but costly. A single gangrenous toe may well cost some one, the patient or the community, several hundred dollars, not counting the time lost by the patient or possible remuneration to the doctor.

A diabetic may be said to be adequately controlled when he is taking a diet which contains sufficient nourishment to maintain him at the desired body weight, and which is properly distributed between protein, fat, and carbohydrate; and when at all times during each day his blood sugar level is kept below the usual renal threshold level, but above the level at which symptoms of hypoglycemia begin.

A calculated diet is essential. The most important single feature of a calculated diet is that the carbohydrate intake shall be kept at a constant desired level each day, and that if this is done it makes little difference what articles of food are used. Two hundred grams of a food containing 10 per cent carbohydrate, or 40 grams of a food containing 50 per cent carbohydrate, each contains 20 grams of carbohydrate and if that is the quantity desired in a meal it makes no difference which is eaten from the point of view of the diabetes.

So far as the so-called diabetic foods are concerned, any of them may be used if its protein, fat, and carbohydrate percentages are known, whereby the quantity to be used can be calculated, but all are unnecessary, and in addition are expensive as compared with ordinary foods. None of them can be eaten freely. They are usually high in protein, and it is to be remembered that the body can convert 58 per cent of the protein into glucose.

Insulin may or may not be required. The impression is wide-spread that once an insulin patient always an insulin patient. Unfortunately this is very often so. If a patient's ability to burn carbohydrate is so impaired that his urine cannot be kept sugar free and his blood sugar level normal by a scientifically constructed diet, he should be extremely thankful that he has an insulin prep available on which to lean. It happens with great frequency that a patient taking insulin is able gradually to reduce his insulin until he can get along without any, his own pancreas having recovered some of its lost function. Insulin has the disadvantage of requiring hypodermic administration. The insulin sub-

stitutes, of which there are many on the market, are worthless, for they have no effect on the carbohydrate metabolism and give an unwarranted sense of security to their users.

The ultimate cause of diabetes is unknown, but certain predisposing factors are well recognized. It is much more common in women than in men. The Jewish race is especially prone to develop it. It is distinctly hereditary, the hereditary characteristic being recessive, however, rather than dominant. About these factors little or nothing can be done by way of prevention. Obesity as an etiologic factor has been emphasized for years and should be reemphasized.—*Monthly Bulletin, Philadelphia (Pa.) Dept. Health, Jan.-Feb., 1934.*

Morbidity in Pennsylvania in June, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	1	146	23	0	5
Allentown	1	51	1	1	4
Altoona	0	22	15	0	16
Ambridge	0	1	2	0	0
Arnold	0	0	0	0	0
Beaver Falls	1	69	0	0	1
Bellevue	0	5	0	0	0
Berwick	0	0	1	0	0
Bethlehem	1	9	0	0	1
Braddock	0	0	0	0	0
Bradford	0	39	0	0	11
Bristol	0	13	2	0	0
Butler	0	53	2	0	18
Canonsburg	1	0	2	0	0
Carbondale	0	0	2	0	0
Carlisle	1	1	0	0	0
Carnegie	0	14	0	0	4
Chambersburg	0	1	0	0	2
Charleroi	0	0	0	0	1
Chester	1	13	0	0	4
Clairton	0	2	0	0	0
Coatesville	0	4	0	0	0
Columbia	0	4	0	0	0
Connellsville	0	0	2	0	1
Conshohocken	0	0	4	0	0
Coraopolis	0	4	1	0	1
Dickson City	0	0	0	0	0
Donora	0	7	8	0	2
Dormont	0	1	1	0	0
Du Bois	0	0	1	0	0
Dunmore	0	0	0	0	0
Duquesne	0	1	2	0	2
Easton	0	0	4	0	0
Ellwood City	0	2	0	0	41
Erie	0	5	30	0	54
Farrell	0	2	0	0	0
Franklin	0	0	2	0	0
Greensburg	0	0	7	0	0
Hanover	0	1	0	0	0
Harrisburg	0	39	7	0	6
Hazleton	1	97	3	0	2
Homestead	0	8	0	0	5
Jeannette	0	0	2	0	1
Johnstown	1	37	5	0	7
Kingston	0	2	1	0	9
Lancaster	0	30	21	0	10
Latrobe	0	0	1	0	0
Lebanon	0	4	2	0	4
Lewistown	0	1	0	0	0
McKees Rocks	1	2	10	0	0
McKeesport	0	3	8	0	12
Mahanoy City	1	0	0	0	0
Meadville	0	0	1	0	2
Monessen	1	1	2	0	4
Mount Carmel	0	0	0	0	0
Munhall	0	0	4	0	0
Nanticoke	0	0	8	0	0
New Castle	0	4	4	0	1
New Kensington	1	4	7	0	6
Norristown	0	0	0	3	0
North Braddock	0	1	4	0	0
Oil City	1	4	0	0	47
Old Forge	0	0	0	0	0
Olyphant	0	3	0	0	2
Philadelphia	15	342	163	3	217
Phoenixville	0	4	0	0	12
Pittsburgh	28	834	140	2	104
Pittston	0	0	1	0	0
Plymouth	1	0	0	0	0
Pottstown	0	1	3	0	0
Pottsville	4	1	0	0	0
Reading	5	4	4	0	66
Scranton	3	25	10	1	25
Shamokin	0	0	0	0	0
Sharon	0	1	0	0	3
Shenandoah	0	5	0	0	0
Steelton	0	45	1	0	1
Sunbury	0	32	2	0	6
Swissvale	0	30	0	0	12
Tamaqua	0	2	1	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	2	1	0	2
Uniontown	1	62	6	0	1
Vandergrift	0	1	0	1	4
Warren	0	113	0	0	1
Washington	0	15	2	1	9
Waynesboro	0	3	3	0	0
West Chester	0	50	0	0	0
Wilkes-Barre	4	2	2	0	4
Wilkinsburg	0	25	2	0	4
Williamsport	0	295	10	0	3
York	0	0	2	1	2
Townships					
Allegheny County:					
Harrison	0	3	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	6	7	0	0
Delaware County:					
Haverford	1	18	1	0	17
Upper Darby	0	15	3	0	13
Luzerne County:					
Hanover	2	1	0	0	0
Plains	1	0	0	0	3
Montgomery County:					
Abington	0	0	0	1	0
Cheltenham	0	62	3	0	4
Lower Merion	0	62	2	0	12
Total Urban ..	79	2771	571	14	811
Total Rural ..	59	2439	360	44	469
Total State ..	138	5210	931	58	1280

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

PUBLIC education has removed most of the obstacles in the way of effective control of tuberculosis. Yet in some respects public education has fallen short of the mark. It has not, for example, brought to the clinic or the doctor's office all persons who have tuberculosis. This in no wise discredits the effort made to persuade people to "let the doctor decide." It points rather to the need of case-finding methods not solely dependent on the initiative of the patient. J. Burns Amberson outlined at the Annual Meeting of the National Tuberculosis Association some principles of case-finding, abstracts of which are here presented.

CASE-FINDING METHODS

Case-finding methods predicated on public education and persuasion to consult the doctor have these weaknesses:

(a) Two-thirds to nine-tenths of patients with early symptoms of tuberculosis have no definite or alarming symptoms. Chronic cough, expectoration, blood spitting, and weakness usually mean that the disease is advanced. "Faint glimmering warnings do not bring us up short and send us running for news and succor."

(b) The physician will miss detection of a great many early lesions by the physical examination unless he also uses the roentgen ray.

(c) The tendency to postpone treatment until the tubercle bacillus is found in the sputum is dangerous for by that time the lesion probably has entered the second stage with cavity formation.

(d) Severity of symptoms is not necessarily a measure of rapidity of spread of the lesions. Particularly in adolescents and young adults serious extensions may occur in a few days.

Facilities and Methods Necessary

Present day case-finding machinery consists of tuberculin testing, roentgen ray (radiography and fluoroscopy), physical examination, laboratory testing and accessory instruments for differential diagnosis. Since it is not yet possible to examine every member of the population it is desirable to select groups of people who are accessible for examination and in whom tuberculosis

is likely to be prevalent. These include: contacts, school children, industrial groups, groups aided by public funds, university students, nurses, and army recruits.

In selecting groups to be examined age should be given great weight. Lesions of the childhood type may easily be discovered in children in the age period 2 to 15 years, but most of these are small and tend to heal spontaneously. It is probably more to the point to direct attention to the adolescent high school group. The incidence of serious tuberculosis rises abruptly in adolescence and early adult life, especially among girls. Discovery of the disease in these groups followed by prompt treatment yields excellent results. Fellows, who examined large numbers of employees of the Metropolitan Life Insurance Company, reports that among the persons found who were treated and returned to work the relapse rate during 7 years has been only 8 per cent.

Race also should be taken into account. The Negro, while he is no more likely to develop tuberculosis than the Caucasian, usually becomes more seriously sick and dies if it does develop. And since the disease in the Negro usually runs a more acute course the dissemination of huge numbers of tubercle bacilli is more likely.

Physician's patients constitute another important group for finding cases of tuberculosis. "The day will come when most physicians will have fluoroscopes in their offices, and will be suf-

ficiently trained to use these, not only as an essential aid in the detection of early tuberculosis, but also as a means of perfecting diagnostic accuracy in many other conditions. The physician will become conscious of the great advantage of viewing the chests of practically all his patients. He will be especially diligent with the susceptible groups mentioned and with other groups such as the syphilitics, the young diabetics, and the silicotics, all of whom are known to have a high in-

cidence of tuberculosis. He will have in mind experiences like that of Fellows, who discovers two-thirds of his cases on routine examination and only one-third because the patients come in with symptoms, and who finds diagnostic signs on physical examination in only about one-half of those with definite lesions."

Some Case-Finding Principles of Practical Significance, J. Burns Amberson, Transaction, Nat. Tuber. Assn., 1934.

SYSTEMATIC search for tuberculosis among apparently healthy adults has been a regular procedure used for employees of the Metropolitan Life Insurance Company since 1927. Fellows reports the results in the American Review of Tuberculosis, July, 1934. It is the first routine serial roentgenological study made upon a large number of adolescents and adults. Excerpts of the article follow.

A STUDY OF TUBERCULOSIS INCIDENCE

Since October, 1927, each applicant for *employment* at the Home Office of the Metropolitan Life Insurance Company in New York City, and, at the annual examination since March, 1928, each Home Office *employee* has received, in addition to an average careful and thorough physical examination, a fluoroscopic examination of the thoracic organs. Whenever suggestive signs were elicited by physical examination, or questionable or definite abnormalities were seen under the fluoroscope, stereoscopic chest films were taken. Actually about 10 per cent of the entire group so examined have been roentgen rayed. Interpretation of the films has followed recognized and accepted standards, but anything less than a definite and characteristic pulmonary lesion was not classified as tuberculous.

Types of Groups Examined

From October, 1927, to January, 1933, 17,947 applicants for employment were examined at the Home Office, a group made up of 95 per cent girls and 5 per cent boys, the majority about 18 years old. Of the 184 applicants (1.03%) who had a positive roentgen ray, 51 were classed as active after reexamination, 79 were questionable, and 54 did not return for reexamination.

On Jan. 1, 1933, there were at the Home Office 14,054 employees, of whom about 5000 have had one or more roentgen rays of the chest since 1926. In this group there were 501 individuals (3.6%) whose roentgen-ray films disclosed definite evidence of a lesion characteristic of pulmonary tuberculosis.

Of these 501 individuals, 70 per cent have undergone a "cure"; the great majority at the

Company Sanatorium at Mount McGregor, New York, a few at some other tuberculosis sanatoria or at home under the care of their family physician. The remaining 30 per cent, who by roentgen-ray examination showed a characteristic lesion, had at no time realized that there had been any disease of the lungs. They denied all symptoms, had never undergone a cure, and simply showed by roentgen-ray examination evidence of pulmonary tuberculosis. The majority of this latter group showed no clinical signs of activity and have remained at work under observation. More than half were classified as "minimal."

The incidence of pulmonary tuberculosis in the group of Home Office employees is relatively high, yet the record shows that the new cases of tuberculosis have decreased markedly since the introduction of the present routine.

Unanswered Questions

The roentgenologic survey of these individuals raises several questions. Why is there such a great incidence of tuberculosis by roentgen ray in this older age-group? Is this group a residue from a heavily infected general population which had such a high death-rate 25 years ago? Is there frequent a reactivation of a primary lesion or a superimposed infection in the later adult life? May there be a retention in service of an unusual number of the tuberculous employees? This last possibility may be ruled out, for the labor turnover of those with tuberculosis is about the same as those without tuberculosis.

A Study of Incidence of Pulmonary Tuberculosis, Haynes Harold Fellows, Amer. Rev. of Tuber., July, 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICIAL TRANSACTIONS

Eighty-fourth Annual Session

CALL TO THE 1934 SESSION

The first meeting of the House of Delegates of The Medical Society of the State of Pennsylvania will be called to order in the Irem Temple, Wilkes-Barre, on Monday, Oct. 1, 1934, at 3 p. m.

Officers to be elected at this Annual Session include a Trustee and Councilor for the First and the Sixth Districts, each to serve for five years, the term of Dr. A. S. Kech of the Sixth District expiring at this time, as well as the term of the late Dr. George A. Knowles of the First District (deceased April 11, 1934), Dr. George C. Yeager of Philadelphia having been elected by the Board of Trustees, May 9, 1934, to complete Dr. Knowles' unexpired term.

Five delegates and five alternates-designate from this Society to the House of Delegates of the American Medical Association for 1935-1936, as well as eleven alternates-at-large, will also be elected.

In addition to the transaction of the usual business, the House will consider proposed amendments to the By-laws.

The following proposed amendment to the By-laws, signed by Drs. Seth A. Brumm and Francis A. Faught, of Philadelphia, was published in the Minutes of the House of Delegates, in the November, 1933, issue of the JOURNAL, and also in the Officers' Department of the June, 1934, JOURNAL:

Chapter VI, Section 1, under COMMITTEES, which begins as follows. "The Standing Committees of this Society shall be as follows, the appointments, when not otherwise provided for, to be made annually by the President." (After list of Committees, add): *It shall be the privilege of the House of Delegates to constitute and finance such other committees as their wisdom may demand; these committees to be appointed annually by the President.*

In line with a recommendation of the Board of Trustees at their May 9, 1934, meeting, the

following proposed amendment to the By-laws was submitted on May 17, by Dr. William H. Mayer, Chairman of the Public Relations Committee:

Chapter VI, Section 1, under COMMITTEES, which begins as follows: "The Standing Committees of this Society," etc., etc.: to list of Committees add: *A Committee on Medical Economics*, also adding an additional Section 2, to read as follows:

The Committee on Medical Economics shall consist of five (5) members to be appointed by the President. It shall be the function of this Committee to investigate and consider problems of sickness costs and to make such recommendations to the House of Delegates and the Board of Trustees as shall result from its studies. It shall be empowered to make surveys of free medical service and to advise as to policies concerning this feature of medical practice. In the field of medical economics, it shall always endeavor to preserve the traditional point of view of ethical medical practice. It shall encourage and develop the creation of committees on medical economics in the component county medical societies. The appointments to this Committee shall be subject to and contingent upon the approval of the Board of Trustees.

On May 26, the following proposed amendment was also received from Dr. Henry G. Munson, Secretary of the Philadelphia County Medical Society:

That Chapter 6, Section 2, of the Constitution and By-laws of The Medical Society of the State of Pennsylvania shall be amended to include a *Commission (or Committee) on Medical Economics*.

That Chapter 6 shall further be amended by the addition of Section 2, which shall read as follows: The Commission on Medical Economics shall consist of one member from each Councilor District appointed by the President, from a list of members, one to be suggested from each County Medical Society in each Councilor District, one-third of whom (or as nearly as is mathematically possible) to serve for one, two, and three years, respectively. Each year the President shall appoint in a like manner a requisite number of members to serve for three years from the membership of those Councilor Districts whose representation shall have been terminated.

It shall be the function of this Committee to investigate and study the various phases of Medical Economics,

especially those relating to State Medicine, hospitalization insurance, and all unethical forms of contract practice, and to coordinate committees or commissions on Medical Economics which may be functioning locally in the various component Societies. It shall report its findings and make recommendations at least four times each year to the President.

The House of Delegates will be asked also to consider two resolutions, as follows:

1. That a Commission on Maternal Welfare of the State Society be created, the duties of which will be to stimulate and promote interest and education among the physicians and laity on the problem of Maternal Welfare in the State of Pennsylvania. This resolution is sponsored by Dr. Philip F. Williams, Chairman of the Committee on Maternal Welfare of the Philadelphia County Medical Society.
2. That a Special Committee on Physical Therapy of the State Society be created, the duties of which will be to promote graduate medical education in physical therapy in the State of Pennsylvania. This resolution is sponsored by Dr. Frank H. Krusen of Philadelphia.

COMMITTEES OF THE 1934 HOUSE OF DELEGATES

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J. Newton Hunsberger, Norristown, *Chairman*.
Harry J. Bell, Dawson.
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George W. Reese, Shamokin.
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MEMBERS OF THE 1934 HOUSE OF DELEGATES*

The president of each component county society, or in his absence the secretary, is a member of the House of Delegates.

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Edward F. Williams, 1200 14th Avenue, *Secretary*.

* The offset names are the alternates, and where street address only is given, the name of the city follows the name of the county.

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J. Walter Barr, U. S. Nat'l. Bank Bldg.
Walter C. Raymond, 528 Franklin St.
Horace B. Anderson, U. S. Nat'l. Bank Bldg.
Edward Pardoe, 531 Locust St.
Leo W. Hornick, 415 Locust St.
H. B. Anderson, U. S. Nat'l. Bank Bldg.

CARBON COUNTY

John J. Quinn, Lansford, *President*.
John L. Bond, Lehighton, *Secretary*.
Solomon L. Hermany, Bowmanstown.
Jacob A. Trexler, Lehighton.
Clinton J. Kistler, Lehighton.

CENTER COUNTY

Richard H. Hoffman, Bellefonte, *President*.
LeRoy Locke, Bellefonte, *Secretary*.
Peter H. Dale, State College.
John V. Foster, State College.
Charles D. Dietterich, State College.

CHESTER COUNTY

Howard B. Davis, Downingtown, *President*.
Joseph Scattergood, West Chester, *Secretary*.
John A. Farrell, West Chester.
Joseph Scattergood, Jr., West Chester.
I. P. P. Hollingsworth, West Chester.

CLARION COUNTY

Sylvester J. Lackey, Clarion, *President*.
Charles C. Ross, Clarion, *Secretary*.
Charles C. Ross, Clarion.
Hilton A. Wick, New Bethlehem.
B. P. Walker, West Monterey.

CLEARFIELD COUNTY (CLEARFIELD)

Wallace S. Bryan, Box 141, Ramey, *President*.
J. Paul Frantz, 213 N. Second Street, *Secretary*.
Ward O. Wilson, 210 N. Second St.
Austin C. Lynn, Philipsburg.
Lester Luxemburg, Philipsburg.

CLINTON COUNTY

John M. Dwyer, Renovo, *President*.
David W. Thomas, Lock Haven, *Secretary*.
Henry G. Hager, Lock Haven.
Charles L. Fullmer, Renovo.
Allen B. Painter, Mill Hall.

COLUMBIA COUNTY

Leslie E. Baker, Espy, *President*.
Charles B. Yost, Bloomsburg, *Secretary*.
H. V. Hower, Berwick.
W. G. Berryhill, Orangeville.
J. Elmer Shuman, Bloomsburg.

CRAWFORD COUNTY

Maurice T. Leary, Meadville, *President*.
Luther J. King, Meadville, *Secretary*.
Herman H. Walker, Linesville.
Edgar J. Werle, Meadville.
Clyde L. Williams, Linesville.

CUMBERLAND COUNTY

Calvin R. Rickenbaugh, 136 W. Louthier St., Carlisle, *President*.
Richard R. Spahr, Mechanicsburg, *Secretary*.
Henry C. Lawton, Camp Hill.
Edward R. Plank, Carlisle.

DAUPHIN COUNTY (HARRISBURG)

Edward K. Lawson, Penbrook, *President*.
John A. Daugherty, 226 State St., *Secretary*.
John F. Culp, 224 Pine St.
John B. McAlister, 234 N. Third St.
Harvey F. Smith, 130 State St.
Edwin A. Nicodemus, 1437 Derry St.
Harvey A. Stine, 1701 Derry St.
John R. Plank, 106 N. Front St., Steelton.
George L. Laverty, 226 State St.
Hewett C. Myers, Steelton.
Howard E. Milliken, 2012 N. Third St.

DELAWARE COUNTY

Ezra A. Whitney, Elwyn, *President*.
Albin R. Rozploch, 318 Highland Ave., Chester, *Secretary*.
C. Irvin Stiteler, 507 Welsh St., Chester.
Walter Wentz, 19 W. Baltimore Ave., Media.
George L. Armitage, 400 E. 13th St., Chester.
John S. Eynon, 401 East Ninth St., Chester.
Charles S. Aitken, 1201 Darby Road, Brookline.
John J. Sweeney, 7701 W. Chester Pike, Highland Park.

ELK COUNTY

Samuel G. Logan, Ridgway, *President*.
Norman R. Benner, Johnsonburg, *Secretary*.
John C. McAllister, Ridgway.
Augustine C. Luhr, St. Marys.
Stanley Barrett, Wilcox.

ERIE COUNTY (ERIE)

Frank B. Krimmel, 361 E. Sixth Street, *President*.
Norbert D. Gannon, 354 W. Ninth Street, *Secretary*.
Arthur G. Davis, 716 Sassafras St.
Elmer G. Shelley, 56 W. Main St., North East.
James D. Stark, 860 E. Sixth St.
Joseph M. Walsh, 734 W. Eighth St.

FAYETTE COUNTY (UNIONTOWN)

L. Dale Johnson, S. N. Bank Bldg., Connellsville, *President*.
George H. Robinson, Citizens Title & Trust Co. Bldg., *Secretary*.
Harry J. Bell, Dawson.
Jesse L. McCracken, Smithfield.
Don C. Fosselman, Connellsville.
Eben R. Ingraham, Masontown.
Robert H. Jeffrey, Uniontown.
Albert E. Coughenour, McClellandtown.

FRANKLIN COUNTY

William E. Seibert, Greencastle, *President*.
Ambrose W. Thrush, 41 Lincoln Way W., Chambersburg, *Secretary*.

Frank N. Emmert, 5. N. Second St., Chambersburg.
Thomas D. White, Orrstown.
Samuel D. Shull, 75 N. Main St., Chambersburg.

GREENE COUNTY

Harold B. Wood, Wind Ridge, *President*.
Frank D. Hazlett, First Nat'l. Bank Bldg., Waynes-
burg, *Secretary*.
Donald R. Jacobs, Waynesburg.
A. Carl Walker, Waynesburg.

HUNTINGDON COUNTY (HUNTINGDON)

William T. Hunt, Jr., 514 Penn St., *President*.
John M. Keichline, 302 Eighth St., *Secretary*.
Cloy G. Brumbaugh, 805 Mifflin St.
John M. Keichline, 302 Eighth St.
Howard C. Frontz, 500 Mifflin St.

INDIANA COUNTY

William L. Benz, Blairsville, *President*.
Norman A. Shick, Indiana, *Secretary*.
William F. Weitzel, Indiana.
Fred S. Shaulis, Indiana.
Joseph C. Lee, Clymer.

JEFFERSON COUNTY

Walter Dick, Brookville, *President*.
William A. Hill, Reynoldsville, *Secretary*.
Frank A. Lorenzo, Punxsutawney.
S. Meigs Beyer, Punxsutawney.
Alverdi J. Simpson, Summerville.

JUNIATA COUNTY

Benjamin H. Ritter, McCoysville, *President*.
Brady F. Long, Mifflin, *Secretary*.
Brady F. Long, Mifflin.
Penrose H. Shelley, Port Royal.
William H. Banks, Mifflintown.

LACKAWANNA COUNTY (SCRANTON)

Walter W. Propst, Medical Arts Bldg., *President*.
Ray J. Garvey, Medical Arts Bldg., *Secretary*.
Leonard G. Redding, Scranton Life Bldg.
Aaron S. Cantor, Connell Bldg.
Arthur E. Davis, Dime Bank Bldg.
James D. Lewis, 204 W. Market St.
Martin T. O'Malley, Connell Bldg.
Albert J. Winebrake, Medical Arts Bldg.
John J. Brennan, 230 S. Main Ave.
Charles Falkowsky, Jr., Medical Arts Bldg.
Stanley W. Boland, Archbald.

LANCASTER COUNTY (LANCASTER)

William G. Hess, Holtwood, *President*.
Charles P. Stahr, 139 E. Walnut St., *Secretary*.
S. Gilmore Pontius, 320 N. Lime St.
Clarence R. Farmer, 573 W. Lemon St.
Harold K. Hogg, 802 N. Duke St.
Tobias C. Shookers, 146 N. Prince St.
Walter D. Blankenship, 144 E. Chestnut St.
Dale Emerson Carey, 204 E. King St.

LAWRENCE COUNTY (NEW CASTLE)

James D. Crawford, 319 Locust Street, *President*.
William A. Womer, 134 N. Mill St., *Secretary*.
John Foster, 36 Mercer St.
David L. Perry, New Castle.
Charles M. Iseman.

LEBANON COUNTY

Warren I. Brubaker, Annville, *President*.
Richard C. Wenner, 427 Cumberland St., Lebanon,
Secretary.
J. DeWitt Kerr, Lebanon.
W. Horace Means, Lebanon.

LEHIGH COUNTY (ALLENTOWN)

Frank S. Boyer, 16 N. Second St., *President*.
J. Treichler Butz, 40th & Hamilton Sts., *Secretary*.
Thomas L. Smyth, 111 N. Eighth St.
Thomas H. Weaver, 211 N. Eighth St.
John J. Bernhard, 1629 Turner St.
Maurice W. Miller, 120 N. Eighth St.
J. Frederick Dreyer, 502 N. Second St.
Willard D. Kline, 24 N. Eighth St.

LUZERNE COUNTY (WILKES-BARRE)

Edward W. Bixby, 292 S. Franklin St., *President*.
Irvine O. Thomas, 425 N. Washington St., *Secretary*.
Lewis T. Buckman, 83 S. Franklin St.
Manfred H. Kudlich, 65 N. Laurel St., Hazleton.
John R. Dyson, 22 N. Church St., Hazleton.
Thomas R. Gagon, 23 Broad St., Pittston.
H. Gordon Guyler, 37 Mallory Place.
Francis T. O'Donnell, 345 N. Main St.
Albert R. Feinberg, 219 S. Franklin St.
Michael J. Murphy, 8 Curtis St., Pittston.
Thomas F. Flemming, 1240 Wyoming Ave., Exeter,
Pittston.
Charles L. Shafer, 219 College Ave., Kingston.
A. Burton Smith, 394 Wyoming Ave., Wyoming.
Almon C. Hazlett, 418 Wyoming Ave., Wyoming.

LYCOMING COUNTY (WILLIAMSPORT)

Warren N. Shuman, Jersey Shore, *President*.
Walter S. Brenholtz, 151 E. Third St., *Secretary*.
John A. Campbell, 838 Funston Ave., Williamsport.
Wilbur E. Turner, Montgomery.
Lee M. Goodman, Jersey Shore.
George L. Schneider, 212 Pine St.
John P. Harley, 21 West Fourth St.
Robert K. Rewalt, 416 Pine St.

McKEAN COUNTY

Earl M. McLean, Bradford, *President*.
Persis S. Robbins, Bradford, *Secretary*.
Francis DeCaria, Bradford.
Milo Cox, Kane.
R. E. Hockenberry, Smethport.

MERCER COUNTY

Harvey E. Massey, Sharon, *President*.
Jonathan B. Perrine, Grove City, *Secretary*.
W. W. Richardson, Mercer.
Patrick E. Biggins, Sharpsville.
John M. Jamison, Grove City.

MIFFLIN COUNTY

A. Reid Leopold, Lewistown, *President*.
James A. C. Clarkson, Lewistown, *Secretary*.
Joseph S. Brown, Lewistown.
Charles J. Stambaugh, Reedsville.
Percy E. Whiffen, McClure.

MONROE COUNTY

Harold B. Flagler, Stroudsburg, *President*.
Roscoe Vander Bie, Stroudsburg, *Secretary*.
William R. Levering, Stroudsburg.
Harold B. Flagler, Stroudsburg.
Claus B. Jordan, Stroudsburg.

MONTGOMERY COUNTY

Jospeh E. Beideman, Norristown, *President*.
Edgar S. Buyers, Norristown, *Secretary*.
J. Newton Hunsberger, Norristown.
Philip J. Lukens, 172 Butler Ave., Ambler.
Walter E. Fine, Ambler.
Herbert A. Bostock, Norristown.
Walter J. Stein, Ardmore.
J. Elmer Gotwals, Phoenixville.

MONTGOMERY COUNTY (DANVILLE)

Lester P. Fowle, Lewisburg, *President*.
 Sidney J. Hawley, Geisinger Hospital, *Secretary*.
 Charles L. Johnston, Catawissa.
 Henry F. Hunt, Danville.
 Russell Thomas, Lewisburg.

NORTHAMPTON COUNTY (EASTON)

Donald C. Richards, 303 Bushkill St., *President*.
 Jacob Kincoy, 330 Bushkill St., *Secretary*.
 Arno R. Zack, 216 E. Broad Street, Bethlehem.
 James E. Brackbill, 111 Market St., Bangor.
 Milton W. Phillips, Chapman Quarries.
 W. Gilbert Tillman, 1803 Washington St.
 William J. Happle, Nazareth.
 Joseph S. Cohen, 1314 Northampton St.

NORTHUMBERLAND COUNTY

J. G. Strickland, 409 Spurzheim St., Shamokin, *President*.
 Mark K. Gass, 910 Market St., Sunbury, *Secretary*.
 George W. Reese, State Hospital, Shamokin.
 Henry T. Simmonds, Shamokin.
 Andrew Buczek, Mt. Carmel.

PERRY COUNTY

Blaine F. Barto, Newport, *President*.
 Catharine Johnson, New Bloomfield, *Secretary*.
 Morris J. Gerber, Duncannon.
 John E. Book, Newport.
 H. B. Hoff, Liverpool.

PHILADELPHIA COUNTY (PHILADELPHIA)

Seth A. Brumm, Medical Arts Bldg., *President*.
 Henry G. Munson, S. E. Cor. 21st and Spruce Sts., *Secretary*.
 J. Norman Henry, 1906 Spruce St.
 Thomas A. Shallow, 1609 Spruce St.
 John B. Flick, 1608 Spruce St.
 Francis Ashley Faught, 5006 Spruce St.
 William T. Johnson, 2008 Walnut St.
 Wilmer Krusen, 17 Bailey Road, Lansdowne.
 T. Ruth Weaver, 1433 Spruce St.
 J. Stuart Lawrance, 405 S. 42d St.
 Charles N. Sturtevant, 4321 Frankford Ave.
 Joseph T. Cadden, 5259 Whitaker St.
 John W. Klopp, 618 W. Lehigh Ave.
 Archibald L. McKinley, 3702 N. Broad St.
 Harry W. Goos, 2033 E. Dauphin St.
 Isidor P. Strittmatter, 999 N. Sixth St.
 Leonard C. Hamblock, 2230 S. Broad St.
 Henry B. Kobler, 63d and Media Sts.
 William N. Bradley, 1725 Pine St.
 E. Treichler-Reedy, 3101 Midvale Ave.
 John D. McLean, 3301 Lancaster Ave.
 Harold F. Robertson, 327 S. 17th St.
 Nathan Blumberg, 1922 Spruce St.
 Basil R. Beltran, 2109 Locust St.
 Pascal F. Lucchesi, 1838 S. Broad St.
 Josephus T. Ullom, 160 W. Carpenter Lane, Gtn.
 Paul J. Pontius, 1831 Chestnut St.
 George F. Enoch, 8037 Frankford Ave.
 David N. Kremer, 5904 Spruce St.
 Frederick S. Baldi, Dexter and Green Lanes, Rxb.
 John Halbert Dugger, 2725 N. 12th St.
 Samuel A. Loewenberg, 1905 Spruce St.
 Francis F. Borzell, 4940 Penn St., Fkfd.
 Ralph Getelman, 2011 Chestnut St.
 George E. Johnson, 5341 Chester Ave.
 George P. Müller, 1930 Spruce St.
 Eldridge L. Eliason, 326 S. 19th St.
 Isidor S. Ravdin, 4623 Larchwood Ave.
 John M. Fisher, 345 S. 19th St.
 William J. Thudium, Medical Arts Bldg.
 Clifford B. Lull, 1731 Pine St.
 Moses Behrend, 1738 Pine St.
 Henry L. Klein, 6602 Woodland Ave.
 Frank H. Krusen, York Road & Cheltenham Ave.

George M. Dorrance, 2101 Spruce St.
 John W. Bransfield, 2101 Spruce St.
 C. Howard Moore, 1916 Spruce St.
 Sigmund S. Greenbaum, 1714 Pine St.
 I. Jay Carp, 1608 S. Tenth St.
 Jacob Gerslioni-Cohen, 255 S. 17th St.
 *George C. Yeager, 1419 E. Susquehanna Ave.
 William F. Moore, 225 S. 16th St.
 Mulford K. Fisher, 6443 S. Broad St.
 Charles F. Nassau, 1710 Locust St.
 Louis C. Scheffey, 19th & Spruce Sts.
 Bernard P. Widmann, 250 S. 18th St.
 Miriam Warner, 21 W. School House Lane.
 Marion H. Rea, 141 Montgomery Ave., Cynwyd.
 Mary Buchanan, 1537 Chestnut St.
 Seth A. Brumm, Medical Arts Bldg.
 John H. Remig, 4734 Osage Ave.
 Michael P. Corcoran, 2033 Pine St.
 Thomas R. Currie, 512 W. Lehigh Ave.
 Chevalier L. Jackson, 3432 N. Broad St.
 Harold W. Jones, 1930 Chestnut St.

POTTER COUNTY

Grover A. Meikle, Galeton, *President*.
 Ross H. Jones, Coudersport, *Secretary*.
 John H. Page, Austin.
 Robert K. McConeghy, Coudersport.

SCHUYLKILL COUNTY

Ivor D. Fenton, Mahanoy City, *President*.
 Arthur B. Fleming, Tamaqua, *Secretary*.
 T. Lamar Williams, Mt. Carmel.
 Charles H. Knauer, Mahanoy City.
 Thomas G. McGurl, Minersville.
 Christian Gruhler, Shenandoah.
 Charles V. Hogan, Pottsville.
 J. Stratton Carpenter, Pottsville.

SOMERSET COUNTY

William W. Keim, Davidsville, *President*.
 Bradley H. Hoke, Meyersdale, *Secretary*.
 Charles I. Shaffer, Ralphton.
 John T. Shipley, Meyersdale.
 George F. Speicher, Rockwood.

SUSQUEHANNA COUNTY

Abram E. Snyder, New Milford, *President*.
 Edward R. Gardner, Montrose, *Secretary*.

Tioga County

Kenneth W. Watterson, Blossburg, *President*.
 Solomon P. Hakes, Tioga, *Secretary*.
 Hughes G. Meaker, Mansfield.
 D. S. Brazda, Blossburg.
 Farnham H. Shaw, Wellsboro.

VENANGO COUNTY

Franklin P. Phillips, Box 555, Franklin, *President*.
 Harry H. Lamb, Oil City, *Secretary*.
 Ford M. Summerville, Oil City.
 Paul R. Cunningham, 1026 Liberty St., Franklin.
 F. Earle Magee, Oil City.

WARREN COUNTY

Alden B. MacDonald, 220 Liberty St., Warren, *President*.
 Hamblen C. Eaton, State Hospital, Warren, *Secretary*.
 W. M. Cashman, Warren.
 A. Follmer Yerg, Warren.
 Erwin S. Briggs, 32 Water St., Warren.

WASHINGTON COUNTY

William J. L. McCullough, Washington, *President*.
 Albert E. Thompson, Wash. Trust Bldg., Washington, *Secretary*.

* Ineligible, 1934, account election to Board of Trustees.

James H. Corwin, Washington.
Milton F. Manning, Beallsville.
Clarence A. Crumrine, Washington Trust Bldg.,
Washington.
Larry D. Sargent, 6 S. Main St., Washington.
Harry J. Repman, Charleroi.
Edwin M. McKay, Charleroi.

WAYNE-PIKE COUNTY

Alfred Catterall, Hawley, *President*.
Robert C. Canivan, Honesdale, *Secretary*.
Robert G. Barkley, Milford.
Harold W. Koch, Honesdale.
Arno C. Voigt, Hawley.

WESTMORELAND COUNTY

Oscar B. Snyder, Greensburg, *President*.
Charles D. Ambrose, Ligonier, *Secretary*.
Dennis R. Murdock, Greensburg.
Paul G. McKelvey, Greensburg.
Lawrence L. Blackburn, Greensburg.
Thomas St. Clair, Latrobe.
Philip S. Pile, Latrobe.
Gervaise F. Nealon, Latrobe.

WYOMING COUNTY

William B. Beaumont, Laceyville, *President*.
Arthur B. Davenport, Tunkhannock, *Secretary*.
Lorne T. MacDougall, Tunkhannock.
W. W. Lazarus, Tunkhannock.
W. J. Llewellyn, Nicholson.

YORK COUNTY (YORK)

James F. Wood, Mt. Wolf, *President*.
Clarence W. Frey, Dallastown, *Secretary*.
Pius A. Noll, 117 S. George St.
H. P. Belknap, 621 S. George St.
H. M. Read, 141 E. Market St.
J. Ferdinand Klinedinst, 220 S. George St.
Raymond M. Lauer, 545 W. Market St.
John D. Yeagley, 161 E. Market St.

REPORTS OF OFFICERS

REPORT OF THE SECRETARY

To the President and House of Delegates:

Membership

The total paid membership of our State Society Aug. 17, 1933, was 7555; the total paid membership Aug. 17, 1934, was 7803, with the following component society distribution for 1933 and 1934 respectively: Adams County, 21, 25; Allegheny, 1308, 1301; Armstrong, 47, 46; Beaver, 85, 83; Bedford, 15, 14; Berks, 172, 162; Blair, 101, 97; Bradford, 39, 39; Bucks, 66, 61; Butler, 51, 52; Cambria, 170, 169; Carbon, 28, 30; Center, 23, 24; Chester, 85, 103; Clarion, 29, 30; Clearfield, 59, 58; Clinton, 22, 22; Columbia, 32, 33; Crawford, 42, 49; Cumberland, 36, 37; Dauphin, 191, 203; Delaware, 142, 143; Elk, 25, 24; Erie, 149, 147; Fayette, 117, 113; Franklin, 56, 62; Greene, 29, 28; Huntingdon, 28, 27; Indiana, 52, 48; Jefferson, 49, 47; Juniata, 7, 6; Lackawanna, 234, 227; Lancaster, 163, 170; Lawrence, 67, 68; Lebanon, 27, 28; Lehigh, 139, 144; Luzerne, 294, 315; Lycoming, 123, 117; McKean, 40, 40; Mercer, 73, 74; Mifflin, 25, 23; Monroe, 21, 21; Montgomery, 175, 173; Montour, 35, 36; Northampton, 141, 143; Northumberland, 76, 76; Perry, 12, 11; Philadelphia, 1977, 2067; Potter, 13, 13; Schuylkill, 142, 158; Somerset, 35, 39; Susquehanna, 12, 13; Tioga, 27, 23; Venango, 50, 53; Warren, 45,

42; Washington, 123, 117; Wayne-Pike, 24, 21; Westmoreland, 160, 152; Wyoming, 13, 13; York, 135, 131.
Seven societies show no change in membership; 25 a gain; 28 a loss.

During the year we lost 152 members by death; 14 by removal; and 21 by resignation.

Medical Defense

Approved applications for defense against suits (summons served) for alleged malpractice, since the last report total 10, numbering from No. 266 to No. 275 inclusive.

CASE No. 266. Summons served Sept. 14, 1933. Laceration of right thigh. Claims operation necessary later on account of earlier improper treatment.

CASE No. 267. Summons served Aug. 7, 1933. Compound comminuted fracture tibia and fibula left leg. Son of plaintiff requested removal of patient to hospital nearer home where left leg was amputated.

CASE No. 268. Summons served June 7, 1933. Alleges treatment for pelvic condition produced abortion and caused subsequent ill health.

CASE No. 269. Summons served Aug. 25, 1933. Penetrating wound of cornea, prolapsed iris, traumatic cataract, requiring removal of eye. Alleges failure to complete agreement.

CASE No. 270. Summons served Oct. 27, 1933. Hypodermic needle broken off in left arm, later removed under fluoroscope. Alleges malpractice. No commercial insurance.

CASE No. 271. Summons served Dec. 7, 1933. Fracture radius and ulna and femur. Alleges malpractice.

CASE No. 272. Summons served Dec. 13, 1933. Claims X-ray burn from diathermy treatment administered by defendant's son also a physician and member. No commercial insurance.

CASE No. 273. Summons served Apr. 30, 1934. Bruises and abrasions near the knee. Alleges negligence. No commercial insurance.

CASE No. 274. Summons served June 14, 1934. Same suit as No. 272; now being brought against son of defendant in that case. No commercial insurance.

CASE No. 275. Summons served July 19, 1934. Fracture right femur, lacerations, cerebral concussion. Alleges trespass.

The following cases have been closed during the past year:

CASE No. 217. Alleged incorrect diagnosis. Suit entered after physician made an effort to collect bill. No commercial insurance. Case listed for trial numerous times. In January, 1934, resulted in nonsuit.

CASE No. 220. Plaintiff alleged malpractice in administration of neoarsphenamine. Granted involuntary nonsuit. No commercial insurance.

CASE No. 272. See above. Plaintiff granted voluntary nonsuit. Action was then brought against defendant's son who had actually administered the treatment in his father's office. (See No. 274.) No commercial insurance.

FINANCIAL STATEMENT

GENERAL FUND

Balance on hand, Sept. 1, 1933 \$25,280.16

RECEIPTS

Membership allotments (8020 members including 217 for 1933) \$49,444.74
JOURNAL 7,438.27

Cancer blanks, health examination blanks, membership lists	\$132.00
Sale of space annual session	5,145.00
Rent	900.00
Repayment of loan to Woman's Auxiliary	500.00
Unexpended balance on Secretaries' Conference	151.03
Transferred from Medical Defense Fund in payment of Vouchers Nos. 86, 170, 202, 256	611.10
Transferred from Medical Benevolence Fund in payment of Vouchers Nos. 33, 111, 184, 267, 358, 383, 421	10,079.35
Transferred from Special Account in payment of Vouchers Nos. 167, 197	1,718.10
	<u>\$76,119.59</u>
	\$101,399.75

DISBURSEMENT

Publishing JOURNAL and Official Transactions (includes Editor's salary and 65% salaries Harrisburg office assistants)	\$24,685.50
Salaries (inclusive of 35% salaries Harrisburg office assistants)	13,580.00
Transfer of funds (all 3 last items above)	12,408.55
Committees, exclusive of Scientific Work	8,233.55
Annual Session	6,944.09
Travel and expense	3,084.18
County Medical Societies a c services of society periodical	2,250.00
Reimbursement petty cash funds	1,499.03
Secretaries' Conference	1,250.00
Survey County indigent medical service	760.65
Printing, 1934 Roster, Summary Pennsylvania Poor Laws, Triplicate ret. books	743.07
Rent, Sec'y's office and Com. Public Relations	677.40
Councilor District meetings	568.23
Stationery and supplies	564.87
Postage (additional inc. Councilor District meetings)	545.00
230 State St., taxes, repairs, etc.	413.90
Audit of accounts	250.00
Peoples-Pgh. Trust Co., Service charge ..	87.13
Tri-State Conference	48.62
Premium on officers' bonds, compensation insurance	46.25
Furniture and fixtures	36.93
Flowers (Dr. Knowles, Dr. Wainwright) ..	30.00
Dues, Penna. Chamber Commerce	25.00
Rental safe deposit box	16.50
Tax on checks	9.30
	<u>\$78,757.75</u>

BALANCE ON HAND, Sept. 1, 1934

GENERAL FUND—Special Account

BALANCE ON HAND, Sept. 1, 1933

RECEIPTS

Interest

DISBURSEMENTS

Order No.	
209. John Stapf, instalment payments on Bldg. improvements, 230 State St., Harrisburg, Vouchers Nos. 209, 283, 319, 354, 428, 440	\$16,680.05
320. Lawrie & Green, Architects, Commission on plans, etc., for Bldg. improvements, 230 State St., Vouchers Nos. 320, 427	296.70
429. Transferred from checking acct. in payment of Vouchers Nos. 167, 197	1,718.10
	<u>\$18,694.85</u>

MEDICAL DEFENSE FUND

Balance on hand Sept. 1, 1933

RECEIPTS

Interest on investments	\$2,238.75
Interest on deposits	161.55
Membership allotments	2,028.76
	<u>4,429.06</u>

DISBURSEMENTS

Transferred to General Fund in payment of Vouchers Nos. 86, 170, 202, 256	611.10
Balance on hand Sept. 1, 1934	\$8,789.47

ENDOWMENT FUND

Balance on hand Sept. 1, 1933

* For explanation of difference of \$4263.75 between these figures and Treasurer's Report see Vouchers Nos. 247, 248, 279, 280.

RECEIPTS

Interest on investments	\$2,115.00
Interest on deposits	96.67
	<u>\$2,211.67</u>
Balance on hand Sept. 1, 1934	\$5,424.70

BENEVOLENCE FUND

Balance on hand Sept. 1, 1933

RECEIPTS

Interest on investments	\$4,812.50
Interest on deposits	321.25
Membership allotments	7,919.00
Southern Pac. R. R. bond matured May 1, 1934	1,000.00
N. Y. Cen. R. R. bond matured June 1, 1934	7,000.00
Contributions—In Memory of Mrs. K., Anonymous (Lacka. Co.)	2,720.35
Woman's Auxiliary to The Medical Society of the State of Penna. and to following county societies—Allegheny, Beaver, Berks, Bucks, Blair, Butler, Cambria, Carbon, Center, Clinton, Clarion, Dauphin, Delaware, Erie, Fayette, Franklin, Huntingdon, Indiana, Lackawanna, Lancaster, Lebanon, Lehigh, Lycoming, Mercer, Montour, Montgomery, Northampton, Philadelphia, Potter, Somerset, Tioga, Warren, Wyoming	\$23,773.10

DISBURSEMENTS

Transferred to General Fund in payment of vouchers Nos. 33, 111, 184, 267, 358, 383, 421	\$10,079.35
Cost of insurance and postage \$7,000 N. Y. C. Bonds due June 1, 1934	1.25
	<u>\$10,080.60</u>
Balance on hand Sept. 1, 1934	\$24,775.51

DISBURSEMENTS—1933-1934

Voucher No.

1. A. H. Stewart, Trustee & Councilor, exp. acct., Vouchers Nos. 1, 188	\$55.66
2. The Courier Press, printing & supplies, Vouchers Nos. 2, 130, 200, 264	136.95
3. Appel & Weber, Gavel for retiring President	23.30
4. Grant L. Bell, Annual audit of books	250.00
5. Donald Guthrie, President, exp. acct., Vouchers Nos. 5, 161, 250, 431	825.23
6. Frank C. Hammond, Editor, exp. acct.	304.73
7. McCoy's Legislative service, Vouchers Nos. 7, 72, 109, 163, 189, 199, 230, 254, 284, 302, 332, 374	325.00
8. E. H. Rauch, Plumber's serv. at 230 State St.	52.60
9. J. J. Gillespie Co., Framing testimonials, Vouchers Nos. 9, 336, 420	65.90
10. H. T. Price, Travel exp., Med. Adv. Com., Vouchers Nos. 10, 104, 334	64.46
11. American Medical Assn., Pamphlets & reprints, Vouchers Nos. 11, 322	15.00
12. W. E. Reilly, Reimbursement exp. acct. Cancer meeting	40.00
13. F. H. Grlock, Stamped env., Cancer meeting ..	21.50
14. Jos. G. Bloodgood, Travel Exp., Cancer meeting ..	52.64
15. I. C. Gerster, Travel exp., Cancer meeting	51.49
16. Henry Romeike, Clipping service, Vouchers Nos. 16, 49, 108	46.70
17. A. B. Dick Co., Stencils & mimeo, supplies, Vouchers Nos. 17, 135, 203, 229, 287, 328, 423	117.95
18. Mary A. Yerger, Exp. acct. annual sessions, Vouchers Nos. 18, 169, 329	123.48
19. Mae Yeaton, Exp. at annual session	43.00
20. Jeanne Beard, Exp. at annual session	33.02
21. Ida L. Little, Exp. at annual session	68.98
22. Virginia D. Sutton, Exp. at annual session	56.91
23. Jenkins Arcade Co., Office rent, Vouchers Nos. 23, 83, 113, 154, 160, 173, 204, 245, 277, 307, 341, 393	677.40
24. Walter F. Donaldson, Secretary, Travel Exp., Vouchers Nos. 24, 47, 90, 126, 190, 218, 299, 330, 395	427.45
25. Bellevue Stratford Hotel, Rental annual session, Vouchers Nos. 25, 80	2076.96
26. F. J. Bishop, Trustee & Councilor, Exp. acct., Vouchers Nos. 26, 138, 257, 408	226.74
27. Evelyn Schwab, Asst. at registration	14.00
28. Jane McLeod, Asst. at registration	16.00
29. Ellen Kenner, Asst. at registration	14.00
30. Ledlie Martin, Asst. at registration	14.00
31. Marie Wormer, Nurse, motion pic. theater	18.00
32. F. E. Dillan, Reporter, Spc. Sec., Gen. Meet., Vouchers Nos. 32, 87	319.45
33. E. B. Heckel, Int. on Benev. Fund and contributions, Vouchers Nos. 33, 111, 184, 267, 358, 383, 421	10,079.35

Voucher No.		Voucher No.	
34. Williams, Brown, Earle, Rental motion pic. machines	\$207.00	127. Chas. H. Smith, Exp. acct. Med. Advisory Com., Vouchers Nos. 127, 219, 266, 295	\$169.50
35. Wm. MacNider, Exp. guest speaker	52.75	131. L. A. Irwin, Multigraphing letters, etc., Vouchers Nos. 131, 321	20.45
36. American Surety Co., premium on bonds, Vouchers Nos. 36, 164	31.25	132. J. M. Wainwright, Award to winner nurses' prize essay contest	50.00
37. Emily P. Bacon, Chr. Ped. Sec., exp. acct.	16.00	134. Mary A. Yerger, Advanced a/c 1934 session expense	115.00
38. J. J. Shea, Exp. guest speaker	100.94	136. Geo. W. Grier, Exp. acct. Cancer Com.	20.05
39. Mary E. Reik, Reporter Surg. Sec.	154.45	137. Moses Behrend, Pres. elect, Exp. acct., Vouchers Nos. 137, 191, 296, 325, 381, 441	283.46
40. Fred D. Weidman, Chr. Sci. Exhibit, Exp. acct.	34.46	140. Geo. A. Knowles, Trustee & Councilor, exp. acct.	12.15
41. A. G. Trimble, Buttons & badges	158.00	141. Robert L. Anderson, Trustee & Councilor, exp. acct., Vouchers Nos. 141, 411	351.60
42. W. H. Kinney, Secy. Urol. Sec., exp. acct.	20.00	156. Peoples-Pittsburgh Trust Co., Service charge, Vouchers Nos. 156, 353	87.13
43. Postmaster U. S. P. O., Stamps, Vouchers Nos. 43, 88, 128, 153, 174, 217, 246, 278, 315, 351, 414	706.37	157. Penn-Harris Hotel, Rental rooms for Committee meetings, etc., Vouchers Nos. 157, 194, 252, 327	35.50
44. Evangelical Press, Printing official handbook, roster, booklet, etc., Vouchers Nos. 44, 105, 201, 227, 300, 394, 412, 415	1,240.12	158. J. M. Wainwright, Chr. Cancer Com., Exp. acct., Vouchers Nos. 158, 359	61.01
45. Wm. S. McCann, Exp. guest speaker	40.54	159. Wm. B. Odenatt, Exp. acct. Med. Adv. Com., Vouchers Nos. 159, 409	35.45
46. Roy Jansen, Travel Exp. acct., Vouchers Nos. 46, 338, 380, 432	108.35	166. C. R. Phillips, Trustee & Councilor, exp. acct., Vouchers Nos. 166, 375	203.82
48. John Alexander, Exp. guest speaker	73.90	167. Lawrie & Green, Architects,* Plans for imp. 230 State St.	810.00
50. Irene H. Snyder, Reporter, House Delegates & Med. Sec.	286.35	168. Penna. Chamber of Commerce, Annual dues	25.00
51. Fred Wise, Exp. guest speaker	15.96	170. Evans, Bayard & Frick, Attys., Services Med. Def. Case No. 217	150.00
52. Central Press Bureau, Clipping service	4.25	186. Jos. P. Replegle, Exp. acct. Appendicitis Mort. Com.	21.87
53. R. L. Gilman, Sec. Derm. Sec., exp. acct., Vouchers Nos. 53, 193, 285	30.00	192. H. J. Smith, Chr. Derm. Sec., exp. acct., Vouchers Nos. 192, 286	20.00
54. Mary A. Yerger, Man. Editor, Salary, Vouchers Nos. 54, 97, 120, 146, 177, 210, 237, 270, 308, 344, 386, 400	4000.00	195. A. S. Kech, Trustee & Councilor, exp. acct., Vouchers Nos. 195, 436	150.69
55. Frank C. Hammond, Editor, Salary, Vouchers Nos. 55, 96, 114, 145, 176, 206, 236, 269, 306, 343, 385, 397	3600.00	197. John Stapf, Contractor,* first instalment payment on building improvements, 230 State St.	908.06
56. Walter F. Donaldson, Secy., Salary, Vouchers Nos. 56, 95, 115, 144, 175, 205, 235, 268, 303, 342, 384, 396	6000.00	198. Jensen Press, Printing	15.41
57. Mae Yeaton, Salary, Vouchers Nos. 57, 98, 121, 147, 178, 211, 238, 271, 309, 345, 387, 401	1500.00	202. Evans, Bayard & Frick, Attys., Services in Med. Def. Case No. 220	200.00
58. Jeanne Beard, Salary, Vouchers Nos. 58, 99, 122, 148, 179, 212, 239, 272, 310	900.00	209. See General Fund—Special Account.	
59. Ida L. Little, Salary, Vouchers Nos. 59, 100, 123, 149, 180, 213, 241, 273, 311, 347, 389, 403	2400.00	220. D. W. Thomas, Trustee & Councilor, exp. acct., Vouchers Nos. 220, 410	177.09
60. Frances Shields, Salary, Vouchers Nos. 60, 101, 124, 150, 181, 214, 242, 274, 312, 348, 390, 404	1260.00	221. Rosenbaum Co., Rug for office of Sec'y.	36.93
61. Virginia Sutton, Salary, Vouchers Nos. 61, 94, 119, 151, 182, 215, 243, 275, 313, 349, 391, 405	1140.00	222. Geo. H. Alexander Co., County maps	12.20
62. Roy Jansen, Salary, Vouchers Nos. 62, 93, 118, 152, 183, 216, 244, 276, 314, 350, 392, 406	3600.00	223. J. A. F. Hall, City taxes, 230 State St.	145.53
63. Derrick Pub. Co., Programs for Cancer meet	7.50	226. J. D. Stark, Exp. acct. Pub. Health Legis. Com.	42.31
64. News Herald, Printing for Cancer meet	8.00	231. Western Union Tel. Co., telegrams, Vouchers Nos. 231, 326	55.84
65. Blizzard Pub. Co., Post cards, tickets, etc., for Cancer meeting	34.50	232. J. G. Steedle, Exp. acct. Com. Pub. Health Legis.	32.76
66. Chevalier Jackson, Exp. guest speaker Cancer meeting	88.08	234. Maxwell Lick, Exp. acct. Appendicitis Mort. Com., Vouchers Nos. 234, 364	58.00
67. Arlington Hotel, Rooms for guest speakers, Cancer meeting	15.50	247. Medical Defense Fund,† Allotment from dues, 1865 members	466.25
68. J. D. Lyttle, Exp. guest speaker	13.70	248. Medical Benev. Fund,† Allotment from dues, 1865 members	1865.00
69. S. L. Koch, Exp. guest speaker	103.37	249. G. B. Meyers, Exp. acct. Pub. Rel. Com.	32.66
70. Chas. Falkowsky, President's travel exp.	140.80	251. C. W. Ostrum, Rebate on Journal sub.	6.00
71. Railway Exp. Co., Charges Sci. Exhibit	46.38	253. J. W. Shirer, Exp. acct. Appendicitis Mort. Com.	28.90
73. C. D. Koch, Salary & Travel exp. a/c Survey of Poor laws, Vouchers Nos. 73, 84, 139	760.65	255. J. J. Brennan, Exp. acct. Com. Pub. Health Legis.	25.00
74. Wm. H. Mayer, Chr. Pub. Rel. Com., Exp. acct., Vouchers Nos. 74, 224, 377	191.57	256. Ledward & Hinkson, Attys., Services in Med. Def. Case No. 272	108.60
75. Edgar S. Buyers, Trustee & Councilor, Exp. acct., Vouchers Nos. 75, 187, 424	156.38	258. E. Roger Samuel, Trustee & Councilor, Exp. acct., Vouchers Nos. 258, 426	91.89
76. Winifred Graham, Reporter, Urol. Sec.	58.60	259. Geo. A. Reed, Trustee & Councilor, exp. acct., Vouchers Nos. 259, 437	91.05
77. J. L. Pomeroy, Printing Trip. Rct. books	180.00	260. Wilbert Flower Co., Flowers—Dr. Knowles	20.00
78. Ethel C. Dunham, Exp. guest speaker	16.20	261. C. M. Smyth, Chr. Work. Comp. Com., exp. acct., Vouchers Nos. 261, 439	44.61
79. Maud Fairbairn, Reporter, Ped. Sec.	216.15	262. Harnies & Salsbury, Work. Comp. Ins.	15.00
80. Evangelical Press, Printing, publishing & mailing Journal, Vouchers Nos. 80, 112, 155, 165, 201, 227, 263, 300, 333, 373, 412, 413	16,376.89	267. Medical Defense Fund,† Allotment from dues, 1546 members	386.50
81. John T. Farrell Jr., Exp. acct. Sci. Exhibit	10.32	280. Medical Benevolence Fund,† Allotment from dues, 1546 members	1546.00
82. Walter F. Donaldson, Sec., Reimburse petty cash acct., Vouchers Nos. 82, 172, 240, 419	697.28	282. Michigan State Med. Soc., Reprints, Vouchers Nos. 282, 289	37.00
85. Horner, Doyle & Wright, Printing, etc., Vouchers Nos. 85, 106, 143, 171, 196, 225, 228, 265, 290, 301, 340, 382, 416	805.86	283. See General Fund—Special Account.	
86. Butz & Rupp, Attys., services in Med. Def. Case No. 263, Vouchers Nos. 86, 133	152.50	288. F. T. O'Donnell, Chr. Ped. Sec., Exp. acct. for Drs. Luchi, Mayock, and self, Vouchers Nos. 288, 292	52.00
91. Helen I. Zerby, Reporter, Derm. Sec.	35.00	291. Scranton Times, Subscription 3 mos.	3.55
92. Philadelphia County Med. Socy., Contribution toward exp. annual session	1500.00	293. M. T. Van Ordstrand, Lettering testimonials, Vouchers Nos. 293, 356, 417	9.80
102. F. B. Royer, Travel Exp. acct. Emerg. Child Health Com.	37.50	294. C. E. Ervin, Chr. Med. Sec., exp. acct.	11.52
103. T. C. Stellwagen, Sec. Urol. Sec., Exp. acct. 1933	24.00	297. Edw. L. Bortz, exp. acct., Ec. Com., Vouchers Nos. 297, 337, 425	76.91
107. Mary A. Yerger, Reimburse petty cash, Vouchers Nos. 107, 185, 281, 418	801.75	298. P. J. Iukens, Chr. Ec. Com., exp. acct., Vouchers Nos. 298, 438	65.36
110. Alex. H. Stewart, Chr. Pub. Hlth. Legis. Com., Exp. acct., Vouchers Nos. 110, 129, 142, 162, 233	664.97	316. Geo. C. Yeager, Trustee & Councilor, exp. acct.	16.36
116. J. B. Lowman, Treasurer, Salary, Vouchers Nos. 116, 207, 304, 398	150.00	317. Marian Foherg, Salary, Vouchers Nos. 317, 346, 388, 402	400.00
117. R. B. Evans, Esq., Legal Counsel, Salary, Vouchers Nos. 117, 208, 305, 399	300.00	318. M. H. Weinberg, exp. acct., Ec. Com., Vouchers Nos. 318, 357	52.15
125. Mary A. Yerger, For deposit, for cash payment of expenses, 1933 Secretaries' Conference	1250.00	319. See General Fund—Special Account.	

* Reimbursed from Special Account.
† Allotments not made at time dues were deposited

* Reimbursed from Special Account.

† Allotments not made at time dues were deposited.

Voucher
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320.	See General Fund—Special Account.	
323.	C. L. Palmer, Chr. Pub. Health Legis. Com., exp. acct., Vouchers Nos. 323, 335, 379, 407, 442	\$102.23
324.	Schuylkill Co. Med. Soc., Deficit on P. G. course	6.36
331.	Harrisburg School Dist., School taxes, 230 State St.	155.92
339.	S. H. Brown, Exp. guest speaker, 3d Counc. Dist. meeting	10.75
352.	H. F. Oves, County taxes, 230 State St.	59.85
354.	See General Fund—Special Account.	
355.	U. S. National Bank, Rental safe dep. box	16.50
360.	Blair Co. Med. Soc., Postage acct. Cancer meet.	100.00
361.	Mirror Print. Co., Printing acct. Cancer meet.	114.00
362.	W. H. Howell, Chr. Cancer meeting, Exp. acct.	89.96
363.	W. K. Mathewson, Exp. acct. Cancer meeting	30.30
364.	Maxwell Lick, exp. speaker Cancer meeting	28.00
365.	H. L. Foss, exp. speaker Cancer meeting	11.00
366.	B. P. Widmann, exp. speaker Cancer meeting	17.92
367.	Jos. A. Hepp, exp. speaker Cancer meeting	8.36
368.	A. J. Bruckeen, exp. speaker Cancer meeting	10.26
369.	Jos. McFarland, exp. speaker Cancer meeting	18.00
370.	E. R. Whitmore, exp. guest speaker Cancer meeting	23.69
371.	Geo. Crile, exp. guest speaker Cancer meeting	30.00
372.	Thos. G. Simonton, exp. speaker Cancer meeting	19.25
376.	S. H. Brown, Postage Com. Cons. of Vision	25.00
378.	L. K. Ferguson, Member Work. Comp. Com., exp. acct.	
422.	Dean Lewis, exp. guest speaker, 3d Counc. Dist. meeting	15.00
427.	See General Fund—Special Account.	
428.	See General Fund—Special Account.	
429.	See General Fund—Special Account.	
430.	A. R. Muir, Flowers a/c death Dr. Wainwright	10.00
433.	G. L. Lavery, exp. acct. Chr. Med. Advisory Com.	75.00
434.	A. E. Crow, Exp. acct. Trustee & Councilor	148.00
435.	L. G. Redding, Exp. acct. Med. Economics Com.	20.00
440.	See General Fund—Special Account.	
443.	Walter F. Donaldson, Secy., For cash payment expenses Public Relations Conference	750.00
444.	Allegheny Co. Med. Soc., Granted on account of services by Society periodical	300.00
445.	Berks Co. Med. Soc., Granted on account of services by Society periodical	65.00
446.	Blair Co. Med. Soc., Granted on account of services by Society periodical	50.00
447.	Bucks Co. Med. Soc., Granted on account of services by Society periodical	35.00
448.	Cambria Co. Med. Soc., Granted on account of services by Society periodical	85.00
449.	Chester Co. Med. Soc., Granted on account of services by Society periodical	55.00
450.	Clearfield Co. Med. Soc., Granted on account of services by Society periodical	35.00
451.	Crawford Co. Med. Soc., Granted on account of services by Society periodical	25.00
452.	Cumberland Co. Med. Soc., Granted on account of services by Society periodical	25.00
453.	Dauphin Co. Med. Soc., Granted on account of services by Society periodical	60.00
454.	Delaware Co. Med. Soc., Granted on account of services by Society periodical	55.00
455.	Erie Co. Med. Soc., Granted on account of services by Society periodical	85.00
456.	Fayette Co. Med. Soc., Granted on account of services by Society periodical	25.00
457.	Franklin Co. Med. Soc., Granted on account of services by Society periodical	25.00
458.	Indiana Co. Med. Soc., Granted on account of services by Society periodical	30.00
459.	Lackawanna Co. Med. Soc., Granted on account of services by Society periodical	85.00
460.	Lancaster Co. Med. Soc., Granted on account of services by Society periodical	55.00
461.	Lawrence Co. Med. Soc., Granted on account of services by Society periodical	25.00
462.	Lehigh Co. Med. Soc., Granted on account of services by Society periodical	50.00
463.	Luzerne Co. Med. Soc., Granted on account of services by Society periodical	85.00
464.	Lycoming Co. Med. Soc., Granted on account of services by Society periodical	85.00
465.	Montgomery Co. Med. Soc., Granted on account of services by Society periodical	85.00
466.	Montour Co. Med. Soc., Granted on account of services by Society periodical	25.00
467.	Northampton Co. Med. Soc., Granted on account of services by Society periodical	50.00
468.	Northumberland Co. Med. Soc., Granted on account of services by Society periodical	40.00
469.	Philadelphia Co. Med. Soc., Granted on account of services by Society periodical	475.00
470.	Schuylkill Co. Med. Soc., Granted on account of services by Society periodical	25.00
471.	Somerset Co. Med. Soc., Granted on account of services by Society periodical	25.00
472.	Venango Co. Med. Soc., Granted on account of services by Society periodical	25.00
473.	Washington Co. Med. Soc., Granted on account of services by Society periodical	40.00

Voucher
No.

474.	Westmoreland Co. Med. Soc., Granted on account of services by Society periodical	\$75.00
475.	York Co. Med. Soc., Granted on account of services by Society periodical	50.00
	Government tax on checks	9.30
Total		\$83,022.00

Councilor District Influences

Since our By-laws provide that the Secretary shall aid the Councilors in the organization and improvement of component county medical societies, and in the extension and influence of the State Society, I would indeed be remiss if I did not acknowledge full cooperation from the Councilors in the various Districts. Our combined endeavors have been toward properly relating our individual members to the health and sickness problems of the immediate neighborhood in which they practice. This is not always a State or county problem, but in certain relationships becomes a neighborhood problem, in the solving of which the county medical society may open the way.

Since the 1933 meeting of the House of Delegates efforts to bring to component societies suggestions or counsel from the State Society have been inaugurated as follows:

First, the plan of semiannual Councilor Commission Meetings conceived by Trustee and Councilor Robert L. Anderson, the Commission in each District being composed of the district censor, the president, the secretary, the editor, and the chairmen of the Public Relations, Public Health Legislation, and Medical Economics Committees of each county society in the Councilor District. Before these groups the District Councilor or other State Society officers or committee chairmen summoned by the Councilor present purely organizational problems. The State Society pays the travel expenses of all attending these meetings, which are distinct from annual Councilor District meetings in each District to which all members in the District are invited for the discussion of both scientific and organizational problems.

Second, with the same object in view, the service from the Secretary's office has been extended to the point of preparing and mailing the regular notices and programs of county society meetings to the members of the societies not having a regular, printed periodical. This service also affords opportunity for the dissemination of many items of State-wide interest to members who previously had received but a postcard notice giving only the time and place of meeting.

The facilities of the Secretary's office for circularizing all the component societies have also been freely taken advantage of not only by the officers, including the Board of Trustees, but by practically all the standing and special committees of the State Society. Communications mailed from the Secretary's office during the past year total approximately 22,500.

Respectfully submitted,

WALTER F. DONALDSON, *Secretary*.

REPORT OF THE TREASURER

Sept. 1, 1933, to Sept. 1, 1934

GENERAL FUND

SPECIAL ACCOUNT

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$24,688.16
Interest on deposit	660.97
	\$25,349.13

DISBURSEMENTS

By Cash—Payment of Vouchers Nos. 209, 283, 319, 320, 354, 427, 428, 429, 440, plus government tax	\$18,694.85
BALANCE ON HAND, Sept. 1, 1934	\$6,654.28

CHECKING ACCOUNT

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$25,280.16
Receipts during year	80,383.84
	\$105,664.00

DISBURSEMENTS

By Cash—Paid Vouchers Nos. 1 to 475, inclusive, excepting those charged to Special Account as listed above	\$83,022.00
BALANCE ON HAND, Sept. 1, 1934	\$22,642.00

SPECIAL FUNDS

MEDICAL BENEVOLENCE FUND

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$11,083.01
Receipts during year	23,773.10
	\$34,856.11

DISBURSEMENTS

By Cash—Withdrawn for benefits	\$10,080.60
BALANCE ON HAND, Sept. 1, 1934	\$24,775.51

MEDICAL DEFENSE FUND

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$4,971.51
Receipts during year	4,554.06
	\$9,525.57

DISBURSEMENTS

By Cash—Withdrawn for defense and default in interest	\$736.10
BALANCE ON HAND, Sept. 1, 1934	\$8,789.47

ENDOWMENT FUND

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$3,213.03
Receipts during year	2,211.67
	\$5,424.70

DISBURSEMENTS

By Cash—No disbursements during year	
BALANCE ON HAND, Sept. 1, 1934	\$5,424.70
TOTAL CASH BALANCES, Sept. 1, 1933 ..	\$69,235.87
TOTAL RECEIPTS DURING YEAR	111,583.64
	\$180,819.51
TOTAL DISBURSEMENTS	112,533.55
TOTAL CASH BALANCES, Sept. 1, 1934	\$68,285.96

 Cash Balances and Investments
Sept. 1, 1934

CASH BALANCES

General Fund, Checking Account	\$22,642.00
General Fund, Special Account	6,654.28
Medical Benevolence Fund	24,775.51
Medical Defense Fund	8,789.47
Endowment Fund	5,424.70
TOTAL	\$68,285.96

INVESTMENTS

(Par values)

MEDICAL BENEVOLENCE FUND

Reg'd Liberty Bonds, 4th Series, 4½%, 1933-38, Serial Nos. 198563-4-5-6-7 ..	\$5,000.00
Coupon Liberty Bonds, 4th Series, 4½%, 1938, Nos. G02871867-H02871868-B0271872 ..	3,000.00
U. S. Treasury Bonds, 3½%, 1949, No. 8109K ..	5,000.00
U. S. Treasury Bonds, 4%, 1954, No. H00011518 ..	5,000.00
U. S. Treasury Bonds, 3½%, 1944-46, Nos. 8278J-8279K-8280L-41947H ..	16,000.00

Illinois Central R. R. Co., 4¾%, 1966, Nos. 28011-12-1592-1593-1594	\$3,500.00
American Telephone & Telegraph, 5½%, 1943, Nos. 81983-59558-28598-28599-28600 ..	5,000.00
Penna. R. R. Co., 5%, 1964, No. 42561 ..	1,000.00
Chicago, Milwaukee & St. Paul, 5%, 1935, Nos. 6178-9-80 ..	3,000.00
Baltimore & Ohio R. R., 5%, 2000, Nos. 27406-7-8-9-10 ..	5,000.00
Buffalo, Roch'r & Pittsburgh, 4½%, 1957, Nos. 15588-26637-14977 ..	3,000.00
*Wabash Railway Co., 5%, 1976, Nos. 6852-6853 ..	2,000.00
Canadian National Rys., 4½%, 1957, Nos. 62992-62993 ..	2,000.00
Southern Pacific Co. Equip't Trust, 5%, 1935, No. 12370 ..	1,000.00
Chesapeake Corporation, 5%, 1947, Nos. 40706-40707-40708-40709 ..	4,000.00
Carolina, Clinchfield & Ohio Ry., 6%, 1952, Nos. M6035-7231-3787-6001-6002 ..	5,000.00
N. Y. Central Equipment, 5%, 1935, Nos. 17334-5-6-7-8-9 ..	6,000.00
Commonwealth Edison Co., 1st Mort. 4½%, 1960, Nos. 11859-60-61-62-63 ..	5,000.00
Ontario Power Co. of Niagara Falls, 5%, 1943, Nos. 05361-2-3-4-09755 ..	5,000.00
Minnesota Power & Light, 1st & Ref., 4½%, 1978, Nos. 11566-7-8-9-11570 ..	5,000.00
Western Union Telegraph Co., 5%, 1960, Nos. 9627-8-9-9630-31 ..	5,000.00
Corporate Stock City of N. Y., 4%, 1959, Nos. 582-583-2082 ..	3,000.00
TOTAL	\$97,500.00

MEDICAL DEFENSE FUND

Reg'd Liberty Bonds, 1st Series, 4½%, 1933-38, Nos. 32423-4-5 ..	\$3,000.00
Coupon Liberty Bonds, 4th Series, 4½%, 1938, Nos. 1382125-1385612-13-14 ..	4,000.00
U. S. Treasury Bonds, 3½%, 1944-46, Nos. 8281A-41948J-41948K ..	7,000.00
Illinois Central R. R., 4¾%, 1966, No. 1595 ..	500.00
American Telephone & Telegraph Co., 5%, 1946, Nos. 55087-8-9-90-1-2-3-4-56792-3 ..	10,000.00
Penna. Railroad Co., 5%, 1964, Nos. 21470-1-2-3-48549-50 ..	6,000.00
Buffalo, Rochester & Pittsburgh, 4½%, 1957, Nos. 16369-70 ..	2,000.00
Canadian National Rys., 4½%, 1957, No. 62994 ..	1,000.00
Chesapeake Corporation, 5%, 1947, No. 40705 ..	1,000.00
N. Y. Central Equip't, 5%, 1935, No. M17492 ..	1,000.00
N. Y. Central Equip't, 4½%, 1935-37, Nos. 12551-15351 ..	2,000.00
Lehigh Valley R. R. Co., 5%, 2003, Nos. 84178-9-80-81 ..	4,000.00
†Western Pacific R. R. Co., 5%, 1946, Nos. 8204-5044-5-10-347-18971 ..	5,000.00
Chicago Union Station, 5%, 1944, No. 6729 ..	1,000.00
Corporate Stock City of N. Y., 4%, 1959, Nos. 569-70-71 ..	3,000.00
TOTAL	\$50,500.00

ENDOWMENT FUND

Reg'd Liberty Bond, 1st Series, 4½%, 1932-47, No. 1653 ..	\$5,000.00
Coupon Liberty Bonds, 4th Series, 4½%, 1938, No. C00199153 ..	5,000.00
Coupon Liberty Loan, 4th Series, 4½%, 1938, Nos. C02871873-D02871874 ..	2,000.00
U. S. Treasury Bonds, 3½%, 1944-46, No. 41950L ..	1,000.00
American Tel. & Tel., 5%, 1960, No. M24901 ..	1,000.00
Penna. Railroad Co., 5%, 1964, No. 21469 ..	1,000.00
Canadian National Rys., 4½%, 1957, Nos. 62995-6 ..	2,000.00
Chicago & Northwestern Ry., 4¾%, 1987, Nos. 132938-134029-137409 ..	3,000.00
Great Northern Ry., 4½%, 1976, Nos. 3894-5 ..	2,000.00
Great Northern Ry., 4½%, 1977, Nos. 12439-40-1-2-13516 ..	5,000.00
North American Edison, 5½%, 1963, Nos. 17926-7-8-9-17930 ..	5,000.00
Niagara Falls Power Co., 6%, 1950, Nos. 4382-7118-7465 ..	3,000.00
Chicago Union Station, 5%, 1944, Nos. 589-590-622-2871-2872-4395 ..	6,000.00
‡Mch'ls & Ohio Railroad Ref. & Imp., 4½%, 1977, Nos. 3152-3-4-5 ..	4,000.00

* Interest defaulted February, 1932.

† Interest defaulted March, 1934.

‡ Interest defaulted September, 1932.

Corporate Stock City of New York, 4%o, 1959, Nos. 572-573-574-575	\$4,000.00
TOTAL	\$49,000.00
TOTAL INVESTMENT IN SECURITIES	\$197,000.00
TOTAL CASH BALANCES AND INVESTMENTS	\$265,285.96

In addition to the above the Society holds title to its property at 230 State Street, Harrisburg.

Respectfully submitted,

J. B. LOWMAN,
Treasurer.

REPORT OF CHAIRMAN OF THE BOARD OF TRUSTEES

To the President and House of Delegates:

It may be pertinent at this time for the Chairman of the Board of Trustees preliminary to his report to remind the members of the House of Delegates of the duties devolving upon the Board of Trustees in the interim between annual sessions of our Society. *The following are brief quotations from the By-laws* regarding such duties, exclusive of the duties of each Trustee as Councillor in his District:

The Board of Trustees shall have charge of all properties and the financial affairs of this Society.

During the intervals between the sessions of the House of Delegates the Board of Trustees shall supervise the action of committees constituted by the action of the House of Delegates.

It shall be the duty of the Board of Trustees to provide for and superintend the publication of a medical journal and of all proceedings, transactions, and memoirs of this Society.

The Board of Trustees shall have full control of all arrangements for the annual sessions.

Regular meetings of the Board shall be held immediately after the annual session of this Society, and on the first Tuesday in the months of December and February, and on the second Tuesday of May of each year. Special meetings of the Board may be called at any time by the Chairman or by six members of the Board.

It shall exercise general supervision over the conduct of all committees in the interval between sessions.

At the organization meeting of the Board of Trustees held in Philadelphia, Oct. 4, 1933, after adjournment *sine die* of the House of Delegates, the following officers were duly nominated and elected to serve for one year: Chairman, Dr. Edgar S. Buyers; Clerk, Dr. A. S. Kech; Editor of the JOURNAL, Dr. Frank C. Hammond; Legal Counselor, Mr. R. B. Evans.

The following new members of the Board were then presented: Dr. Clarence R. Phillips, of Harrisburg, having been elected to succeed himself for a term of five years, representing the Fifth Councillor District; Dr. E. Roger Samuel, of Mt. Carmel, having been elected for a term of five years, representing the Fourth Councillor District.

The Finance Committee submitted the budget for 1933 and 1934, which after thorough discussion and a few minor changes was adopted by the Board.

The Chairman announced the committees for the year, each Committee to choose its own Chairman: *Executive Committee*—Drs. Augustus S. Kech, George A. Reed, and E. Roger Samuel; *Finance Committee*—Drs. R. L. Anderson, F. J. Bishop, and Alex. H. Stewart; *Publication Committee*—Drs. George A. Knowles, Arthur E. Crow, and David W. Thomas; *Benevolence Committee*—Drs. Howard C. Frontz, Edward B. Heckel, Clar-

ence R. Phillips, and Walter F. Donaldson; *Committee on Building Improvements*—Drs. Augustus S. Kech, Clarence R. Phillips, Frederick J. Bishop; *Educational Committee*—Drs. Robert L. Anderson, Walter F. Donaldson, and Donald Guthrie.

Mr. C. D. Koch, recently temporarily employed by the Board, was presented and gave a preliminary report of his studies of the Poor Laws of Pennsylvania. He had at this time contacted six counties. The Board recommended that his study should be continued on lines helpful in acquainting those who should be interested with the medical phase of the care of the indigent.

President Guthrie announced that the Committee authorized by the House of Delegates, Oct. 4, 1933, to advise with the State Emergency Relief Board concerning remuneration for physicians treating those authorized by County Emergency Relief Boards, would include the following: Drs. George L. Lavery, Harrisburg, Chairman; W. Burrill Odenatt, Philadelphia; Henry T. Price, Pittsburgh; Charles H. Smith, Uniontown; and Walter F. Donaldson, Pittsburgh.

Secretary of Health Appel, granted the privilege of the floor, stated that he would probably be asked in the near future by the Federal Public Health Service to act upon any health regulations passed on to the State Government, and that he desired a contact with the Board of Trustees for guidance and advice in such matters. It was unanimously agreed that such request should be addressed to the Chairman of the Board and the Secretary, who would contact the Trustees by mail vote.

At the December meeting of the Board a motion was made at the request of President Guthrie, which was unanimously adopted, approving inauguration of a statewide campaign, looking toward the lowering of mortality from appendicitis, each county society to be requested to give over one of its meetings for the purpose of discussing means of educating the public on the subject.

In pursuance of the recommendation of the House of Delegates that the Board of Trustees make a study to determine whether the existing forms of employment of physicians on salary in Teachers' Colleges constitutes an unethical form of contract practice, reports on all Teachers' Colleges in Pennsylvania were presented. Upon motion the reports were referred to a Committee, to be appointed by the Chairman, to prepare and present a report with recommendations at the February meeting. The Chairman later appointed Drs. Thomas, Samuel, and Stewart.

The proposed plan of the Committee on Conservation of Vision was unanimously approved, and the sum of \$100 was appropriated for the Committee's activities in the dissemination of knowledge on the subject.

A communication from the State Welfare Department was read calling attention of the medical profession to the fact that all small institutions doing nursing or hospital work are required to apply for license from the Welfare Department. The communication also requested all members of our State Society to call to the attention of the Department such institutions existing in their vicinities.

Chairman Stewart of the Committee on Public Health Legislation presented a report on Bills to be presented at the current extra session of the Legislature, with special reference to changes in the Workmen's Compensation Laws. After thorough discussion the Board approved the following:

"That The Medical Society of the State of Pennsylvania and its 60 component county medical societies,

with its total membership approximating 8000 members who practice in the 67 counties of Pennsylvania, recognize certain qualifications as necessary for the individual physician desiring to practice industrial medicine and surgery, and that the above mentioned societies undertake, through appropriate committees, to list those physicians of the State believed to be qualified for such special work; further that they withdraw their endorsement at any time any physician's work is found by the said committees to be of unsatisfactory quality.

"We believe that these suggestions should be offered in the form of an amendment to any and all proposed Workmen's Compensation Legislation that offers better medical service to beneficiaries of the Workmen's Compensation Act and is otherwise satisfactory to our membership."

Chairman Kech of the Building Improvements Committee presented the architects' preliminary plans for the proposed improvements.

The Board unanimously agreed to engage architects to proceed with the proposed plan for much needed alterations and a fire- and waterproof addition to the Society's headquarters building at 230 State Street, Harrisburg, which will afford improved working facilities, looking toward extension of the service of the Society to its members. It was agreed that when these improvements are completed the building will be in appearance not only in keeping with the dignity of our organization and the property's proximity to Pennsylvania's magnificent Capitol Building group and park, but will provide fireproof and waterproof facilities for the storing of archives, the development of library and of library package service, a museum, committee rooms, and a Board room capable of being converted into a meeting room to seat comfortably about 80 persons.

Upon motion the plans were unanimously approved, and the Committee empowered to secure bids and submit the same to the Board for approval by a mail vote.

President Guthrie presented a plan of state-wide postgraduate education for the smaller county societies or combinations thereof during the coming year. The plan was unanimously approved by the Board.

At the February meeting Dr. Theodore B. Appel, Secretary of Health, was given the privilege of the floor and in his talk referred to a large number of registered nurses who were assigned to CWA work by the Federal Government. Secretary Donaldson was instructed to inform the proper representative of the various county medical societies regarding the employment of nurses, with the purpose in view of encouraging the development of medical relations with the temporary work of these nurses to the end that the best possible results from their services might be attained.

The Board of Trustees gave favorable consideration to the following recommendations of the Public Relations Committee relative to the Bill under consideration in the United States Senate known as the Tugwell Bill:

We favor: 1. Proper control of advertising of every kind, including newspapers, billboards, and radio broadcasting. 2. Control of the character of cosmetics. 3. Control over the distribution and sale of poisonous and unwholesome foods. 4. Adequate control of claims for curative powers of packaged medicine. 5. Informative and truthful labeling of all foods, drugs, and cosmetics. 6. More adequate and uniform penalties for violation of the laws governing these products.

Editor Hammond presented the proposal of the newly created Committee on Appendicitis Mortality relative to publication in the March JOURNAL of a page of warn-

ing stickers to be detached and used by physicians in cautioning the public regarding the serious possibilities of neglected abdominal pain, the cost of these stickers to be approximately \$95. The Trustees unanimously approved the proposal.

Chairman Kech of the Building Improvements Committee reported that bids had been received from six contractors on the plans and specifications of the architects, and stated that the Committee recommended that the lowest bidder, John Stapi of Harrisburg, should receive the contract. The recommendation of the Committee was unanimously approved by the Board. It was also reported that the Committee would eventually furnish for the archives of the Society a complete set of the architects' plans, copies of the bids and contracts, and other items concerned in a complete history of the undertaking.

President Guthrie reported progress in the state-wide postgraduate instruction plan for smaller county societies, and requested Councilors to sensitize the societies in their respective districts and report to him so that plans might be consummated.

President Guthrie addressed the Trustees on proposed changes in Pennsylvania's Workmen's Compensation Law. As a result of the President's remarks, and after free discussion, a motion prevailed that President Guthrie be authorized to appoint a special commission, whose duty it should be to obtain the views of representative members engaged in general private practice, industrial practice, and hospital practice, regarding medical service under Pennsylvania's Compensation Law, and to study the problem as handled in other states, with the purpose in view of recommending constructive changes in Pennsylvania's present law; said Commission consisting of 7 to 9 members to be instructed to be prepared to submit a preliminary report at the May meeting of the Board, with a later report for action at the first October meeting of the Trustees and, if found advisable, presentation to the 1934 House of Delegates.

Dr. Irvin J. Metzger, Chairman of the Bureau of Medical Education and Licensure, was introduced and spoke on advisable changes in the Medical Practice Act. The Board approved the suggestions (See page 603, April PENNSYLVANIA MEDICAL JOURNAL) of Chairman Metzger. In closing Dr. Metzger announced that a director of enforcement, an attorney, had been installed in the Department of Education, with 11 investigators in his department who were working throughout the State for all the various licensing boards at present under the department. He further stated that these boards in their investigation and prosecution of illegal practitioners now have the aid of State patrolmen, who may serve as witnesses.

The report of Chairman Samuel McC. Hamill, M.D., of the State Emergency Child Health Committee, was presented by the Secretary, and upon motion was unanimously adopted. The Secretary was instructed to make appropriate reply to Chairman Hamill, expressing the thorough appreciation of the Board of Trustees for the splendid work being performed in various counties throughout the State under the leadership of Dr. Hamill and his coworkers on the State Committee.

Upon invitation of President Guthrie the May meeting was held in the Conference Room of the Guthrie Clinic, Sayre, Pa.

The death on April 11, 1934, of Dr. George A. Knowles, Trustee and Councilor for the First District, was announced by the Chairman, after which those in attendance stood for a moment in silent tribute to the

memory of Dr. Knowles. Upon motion the Secretary was instructed to present a suitable minute on the death of Dr. Knowles and forward a copy to the family (see page 765, June PENNSYLVANIA MEDICAL JOURNAL).

The Chairman then announced that the Philadelphia County Medical Society, the only component society in the First District, had presented the name of Dr. George C. Yeager, of Philadelphia, to the Board in order that the Trustees should have guidance in selecting the successor of Dr. Knowles to serve until the next meeting of the House of Delegates. Dr. Yeager was elected by mail vote, which vote was confirmed at this meeting. The Chairman then presented Dr. Yeager, who was seated as Trustee and Councilor for the First District.

A motion prevailed that due to the difficulty in securing safe investments with adequate income at present, the funds be permitted to remain at 3 per cent interest in the various savings accounts, to be invested later at the discretion of the Finance Committee.

President Guthrie reported progress in his state-wide program of postgraduate instruction. He emphasized the whole-hearted coöperation that he had received from the faculties of the various medical schools of Pennsylvania, and was also encouraged by the interest manifested by the county societies that have requested and adopted a program, among which are Berks, Huntingdon, Lackawanna, Lycoming, Schuylkill, and a group in the northern part of the Fourth Councilor District, with Sayre as the center.

Dr. Thomas, Chairman of the special committee of the Board appointed to study medical service in State Teachers' Colleges, presented a complete and detailed survey of such service. A motion prevailed that the work of the Committee be approved and their study be continued, with instructions to bring a definite recommendation to the next meeting of the Board, in October, in answer to discussion on the subject that took place in the 1933 House of Delegates.

The report of the Building Improvements Committee referred to the completion to the first floor of the new addition to the building and expressed the hope for more rapid progress with better weather conditions.

President Guthrie and Secretary Donaldson offered a plan based on the greater need for close and repeated contacts between State Society representatives and members of the County Societies on subjects of public health legislation and medical economics believed to lie ahead in the next 12 months. The plan was designed to express appreciation of past courtesies and to encourage continued consistent coöperation of component society official publications with the various state-wide activities of the State Society. The plan was adopted by the Board, which provided that a sum not to exceed \$2250 be appropriated. This plan, however, was not intended to establish a precedent, nor in any way give an impression of permanency.

At this meeting a free discussion prevailed on the duties and functions of the Public Relations and Medical Economics Committees. As a result a motion was unanimously adopted expressing complete confidence in the Public Relations Committee. It was agreed that the Economics Committee should be definitely separated from the Committee on Public Relations, and further that these committees should continue to function as fact finders, and not as policy outlining groups, except through the House of Delegates and between annual sessions the Board of Trustees.

President Guthrie reported the resignation of Dr. Alex. H. Stewart as a member of the Public Health

Legislation Committee. On motion the Secretary was instructed to convey to Dr. Stewart the regret of the Board at his decision and express full appreciation of the untiring, unselfish, and constructive service he had rendered as Chairman of that Committee since October, 1930, with special mention of his outstanding work at Harrisburg during sessions of the Legislature.

President Guthrie announced the appointment of Dr. C. L. Palmer of Allegheny County to the Chairmanship of the Public Health Legislation Committee.

President Guthrie also announced the following Committee to consider improvements in Pennsylvania's Workmen's Compensation Law: G. H. Cross, M.D., Chester; Charles Falkowsky, M.D., Scranton; L. K. Ferguson, M.D., Philadelphia; G. W. Hawk, M.D., Sayre; G. L. Lavery, M.D., Harrisburg; W. H. Mayer, M.D., Pittsburgh; Edw. Pardoe, Johnstown; F. P. Phillips, M.D., Franklin; Loyal A. Shoudy, M.D., Bethlehem; C. M. Smyth, Jr., M.D., Philadelphia, Chairman.

Dr. Harold A. Miller, State Director of Emergency Medical Relief, was given the privilege of the floor, and reviewed the relief program since its inception Dec. 1, 1933.

The meeting adjourned to accept the invitation of President and Mrs. Guthrie for dinner.

The outstanding work considered by the Board during the past year may be summed up as follows:

1. Establishment of payment by the State for medical services rendered to those on Emergency Relief.
2. A survey of the Poor Laws of Pennsylvania as applied in most counties.
3. A Committee to study and suggest changes in Pennsylvania's Workmen's Compensation Laws.
4. Remodeling of our Society's Building with construction of fire- and waterproof additions at 230 State Street, Harrisburg, with the addition of Committee rooms, library facilities, etc.
5. A survey of forms of medical service available in State Teachers' Colleges.
6. Coöperation with the President in organizing postgraduate courses in the smaller county societies.
7. A continuation of the policy in Emergency Child Health activities.
8. The development of Councilor Commission Meetings in addition to the annual Councilor District Meetings.
9. Maintenance through society officers and committee chairmen of coöperative relations with the Executive, Health, Welfare and Educational Divisions of our State government.

Your Chairman in closing would plead that criticism of the work of the Board be based only on understanding of its constitutional functions and knowledge of its accomplishments. Physicians are educated men and of necessity are of many minds. It is impossible for all to think alike. We believe that in the endeavors of the Board only the greatest benefit to the greatest number has been sought. While some individual members and a very few component societies have not approved of our endeavors, as a rule there has been hearty coöperation. We believe that this coöperation has aided in influencing the type of medical service that will eventually be the answer to the demands for socialized medical practice.

Your Chairman would caution the component county societies in their constructive fact finding committees to be most careful in inaugurating public policies before conferring with the Board. During the year many societies have become zealous in the subject of Economics

and Public Relations for which we offer our ardent thanks. However, to outline policies without consultation with State Society Committees whose chairmen meet periodically with the President, President-elect, and the Trustees, may undo much good and embarrass the program.

Respectfully submitted,

EDGAR S. BUYERS, *Chairman.*

REPORT OF THE EDITOR

To the Board of Trustees:

The JOURNAL terminates Volume XXXVII with this issue. There has been a great deal crowded into this volume owing to the demands incident to Medical Economics, State Emergency Medical Relief, and allied interests.

A great deal more could be accomplished if our members would become JOURNAL conscious and read regularly the official publication of their State Society. It is informative. It publishes the various viewpoints on many controversial topics, that the members may quickly sense what is going on, and why the State and County Society officers draw the conclusions they do; and, thus, be enlightened as to the need for 100 per cent cooperation on the part of the membership.

The Editor is keenly appreciative of the continued cooperation of the Trustees and Councilors who so graciously respond to his every request which, after all, means the high type of JOURNAL that is the house organ of our State Society.

Secretary Walter F. Donaldson is always most responsive, which greatly enhances our journalistic enterprise.

Mrs. Yerger continues with unabated interest and devotion to her many duties. Mrs. Yeaton has been most efficient; and so was Miss Beard who recently resigned to become married. Miss Foberg who succeeds Miss Beard shows an aptitude for her duties.

Respectfully submitted,

FRANK C. HAMMOND, *Editor.*

REPORT OF THE MANAGING EDITOR

To the Board of Trustees:

THE JOURNAL

The PENNSYLVANIA MEDICAL JOURNAL, September, 1933-August, 1934, inclusive, contains 972 pages exclusive of advertising. These pages include: Scientific Papers, 134; County Society Reports, 258; Editorials, 86; Book Reviews, 33. Two new departments have been established in this volume: Emergency Medical Relief and Medical Economics. This volume of the transactions of the Society, 1933-1934, exceeds the volume for the previous year by 78 pages.

The income for the JOURNAL for the year amounts to \$7438.27, representing an income of \$336.00 from the publication of Tuberculosis Abstracts; \$234.69, from the sale of subscriptions and single journals; and \$6867.58 from advertising.

THE SESSION

All things indicate that the 1934 convention in Wilkes-Barre will be eminently successful. The Scientific Exhibit, under the chairmanship of Dr. Angelo L. Luchi, will be the largest and most comprehensive in the history of the Society. The Technical Exhibit will be of pronounced educational value. At this date reservations have been made by 52 firms for their exhibits.

Income from the sale of exhibit space for the Philadelphia, 1933, convention amounted to \$5145.00. Expenses connected with this convention amounted to \$6944.09.

THE PROPERTY

On July 1, the tenants that occupy the second and third floor apartments moved in order that the building could be remodeled. The architect and contractor expect that the remodeling will be completed by Oct. 1, 1934, and the apartments ready for occupancy. The tenants have expressed their wish to return as soon as the apartments are completed.

Grateful acknowledgement is made of the loyal cooperation, interest, and support of the officers and trustees of The Medical Society of the State of Pennsylvania.

The capable assistants, Mrs. Yeaton and Miss Foberg, continue their valuable services.

Respectfully submitted,

MARY A. YERGER, *Managing Editor.*

REPORTS OF INDIVIDUAL COUNCILORS

DR. GEORGE C. YEAGER, PHILADELPHIA, COUNCILOR FOR THE FIRST DISTRICT

To the President and House of Delegates:

It is with great regret we record the death on April 11, 1934, of the Councilor for the First District, Dr. George A. Knowles. Our good friend, wise counselor, and unselfish worker in behalf of our profession will be with us no more; but we who have been chosen to "carry on" hope for a large share of the enthusiasm which he exhibited in all his work to help his brothers in the profession and to make this old sick world a happier and better place in which to live.

The usual activities of the only component society in the First Councilor District were carried on well under the efficient direction of Dr. Walter S. Cornell, President of the Philadelphia County Medical Society, and his able Board of Directors.

Two business meetings and 19 scientific meetings were conducted during the year. At a special meeting of the Board of Directors of the Philadelphia County Medical Society and the Philadelphia County Delegates to The Medical Society of the State of Pennsylvania, Dr. George C. Yeager was recommended to the Board of Trustees for election to fill the unexpired term of the late Dr. George A. Knowles.

The 6 postgraduate seminars, under the direction of Dr. Nathan Blumberg, are worthy of special note due to the outstanding ability of the men who gave the lectures and also the practical character of all the studies undertaken. Over 30 sessions were held, and the subjects covered were presented each in a series of meetings by experienced practitioners and teachers: "Disorders of the Kidney," arranged by Dr. Edward Weiss; "Diabetes, Its Medical and Pathologic Aspects," arranged by Dr. Moses Behrend; "Gynecology and Obstetrics," arranged by Drs. F. E. Keene and Edmund B. Piper; "The Periodic Health Examination," arranged by The Committee on Periodic Health Examinations of The Medical Society of the State of Pennsylvania, of which Dr. Robert M. Alexander, of Berks County, is chairman; "Roentgenology in Diagnosis," arranged by Dr. F. F. Borzell. An intensive course on "Physical Therapy," arranged by the Committee on Physical Therapy, of which Dr. Frank H. Krusen, of Philadelphia, is Chairman, was presented in 5 successive

days. The total registered attendance at these seminars was 1592.

Of the 19 scientific programs, it is hard to place any one higher than the others, for all have been of exceptional merit; but several stand out more prominently—notably the presentation of the Mental Health problem, discussion of which was opened by the Honorable Charles L. Brown, President Judge of the Municipal Court of Philadelphia.

A Medical-Dental Night was also observed, at which Dr. Edward H. Hatton, professor of pathology at Northwestern University Dental School, Chicago, discussed "Current Trends in Oral Focal Infection."

An interesting program "intended as a stimulus to and an appreciation of all interns" was presented on what was designated as Interns' Night.

The most outstanding programs were those presented on "Hyperthyroidism," by Dr. Frank H. Lahey, Boston, Mass.; "The Fourth Annual Da Costa Oration," by Dr. George W. Crile, Cleveland, Ohio; and a special program on Medical Research, under the auspices of the Philadelphia Institute for Medical Research of which Dr. Judson Daland is President. The Director of the Institute, Dr. L. G. Rowntree, presented a paper (with motion picture demonstration) on "The Accruing Effects of Thymus Extract (Hanson) on Growth and Development in Successive Generations of Rats." This most outstanding research work of the year in medical subjects was discussed by Dr. A. M. Hanson, of the Hanson Research Laboratory, Faribault, Minnesota, and those connected with the Laboratories of the Philadelphia General Hospital, and the Wistar Institute of Anatomy.

The work of the Maternal Mortality Committee under the Chairmanship of Dr. Philip F. Williams, and the work of our Medical Economics Commission under the Chairmanship of Dr. Francis A. Faught, have already attracted sufficient attention in the columns of the JOURNAL to obviate the necessity of making more than mention of them in this report. Their accomplishments, it is believed, are outstanding.

Organized Child Health activities have been largely covered by the work of the general committees and included an intensive campaign to enthuse the general membership with the value of diphtheria immunization, and to make special efforts to have all children under their care immunized. A special committee is working with the Department of Health relative to the immunizing for scarlet fever.

The Emergency Medical Relief work has been very satisfactorily carried on in Philadelphia under the able direction of Dr. George P. Müller and his associates, and has received the hearty coöperation of practically all our members. We cannot speak too highly of the efficient manner in which Dr. Müller has administered this difficult and arduous project. We also wish to extend thanks to Dr. Harold A. Miller for his coöperation in making the work effective in our city.

The membership has been steadily increasing. We have at present 2163 members on our roll. During the year, we have lost 36 by death; 55 were dropped for nonpayment of dues; 150 new members have been elected, and have qualified, while 21 others have been elected, but have not as yet qualified. Before October 1 we expect many more members to qualify, so we are encouraged to feel that the medical profession is rapidly realizing the value of organization.

The Woman's Auxiliary to the Philadelphia County Medical Society has been very active during the past year, under the direction of its very efficient president, Mrs. Fielding O. Lewis. Social meetings at which

funds were raised for worthy causes were frequent during the year. These meetings, we feel are a great help to the profession in helping to produce a social solidarity which is so much needed. The auxiliary's contributions to the County Society Aid Association and other regular charities amounted to over \$1400. Surely this is a branch of our activities which should receive our most hearty support, encouragement, and thanks.

While I have not had the opportunity of my fellow Trustees and Councilors of sharing intimately in the problems of a group of neighboring county societies, I have nevertheless had the privilege of attending five Councilor District Meetings throughout the State, thus familiarizing myself with the various state-wide angles of our common problems.

DR EDGAR S. BUYERS, NORRISTOWN, COUNCILOR FOR THE SECOND DISTRICT

To the President and House of Delegates:

The County Societies composing the Second District are Berks, Bucks, Chester, Delaware, Montgomery, and Schuylkill Counties, with a total of 791 members.

The Councilor has visited each Society at least once during the year, and several two or three times, and found all in a most healthy condition, busily engaged in review of medical progress and the study of welfare and economic problems.

During the past year several suits for alleged malpractice have been instituted in the District. Two were nonsuited and four are pending. This is the first time in six years the Councilor has had the unpleasant duty of reporting malpractice suits, and should be a warning to our members to be exceedingly careful in adopting the suggestion of our State Society as to the maintenance of competent case records, requests for consultation in difficult cases, and for adequate roentgen-ray facilities in diagnosing and treating surgical conditions and injuries.

The newly created Councilor Commission held its first meeting in Norristown, January 31. All the Societies in the District except Berks were represented. The program included "The Purpose of the Councilor Commission," by Edgar S. Buyers, M.D., Councilor; "The Function of Public Relations Committees," by George H. Cross, M.D.; "Proposed Changes in Workmen's Compensation Law," by Moses Behrend, M.D.; "Problems of a County Society Secretary," by A. B. Fleming, M.D.; "Emergency Relief and the Physician," by W. Burrill Odenatt, M.D. The meeting was a most enthusiastic one; nearly every county society representative present entered into the discussion of the various papers and expressed a desire to attend similar meetings devoted to organizational problems in the near future.

The Councilor Meeting was held at Tredyffrin Country Club, Chester County, on Sept. 14, 1933. Although the rain fell in torrents all day the club house was taxed to its utmost capacity to accommodate those in attendance. Former-President Sharpless read a history of the Chester County Medical Society. This makes the fourth history presented at our annual meetings. The year 1935 will complete the histories of the six county societies of the Second District, and should be a great aid to the future historian of our State Society. President Falkowsky addressed the meeting on "Presidential Amenities," followed by President-elect Guthrie, who spoke on "Our Traditional Purpose." Dr. Walter E. Lee of Philadelphia presented a paper on "Post-operative Pneumonia." Twenty-seven members of the District, who had practiced medicine for 50 years, were

presented with framed testimonials. The 1934 Councilor Meeting will be held at Plymouth Country Club, Norristown, September 13.

The newspaper Health Column released by the Educational Committee of the State Society is proving very popular, speaking as these columns do in the name of the county society. Montgomery County Society heads the list for the District and the State by having the releases published in 19 county newspapers.

The most discussed problem during the year has been the payment of physicians for medical care to those on Emergency Relief. There has been a gratifying adoption and approval of the system employed and the fees paid, except in some sporadic instances. The Medical Advisory Committees of our County Societies have worked incessantly and are to be highly commended for their untiring efforts.

The Councilor during the year has observed throughout the District the awakening of the profession to Economic and Public Relations questions. The Committees of the County Societies have been most energetic and have collected and correlated considerable data, which will be most useful as time goes on and the studies are continued. Interest is aroused throughout the District as never before. Our members are studying more and more information published by our county, State, and national societies.

As a rule the Emergency Child Health program has been fairly well received. The following represents the number of children on Relief examined at this writing: Berks County, 478; Bucks County, 768; Chester County, 797; Delaware County, 581; Montgomery County, 1426.

The Berks County Society again sponsored an educational exhibit at the Berks County Fair.

This Society held its scientific meeting in October jointly with the Reading Dental Society. The topic was "Medical Economics." In addition to this meeting, Medical Economics was discussed at both the September and December quarterly business sessions.

The Society amended its constitution in order to include as members (to be designated as associates) all interns and residents in the hospitals of Reading. This membership carries the privilege of attendance at all meetings and functions of the Society, but does not include the privilege of voting. No dues are charged.

The Public Relations Committee sponsored two campaigns for the immunization against diphtheria of children of preschool age. The first campaign was for those who could afford to pay their physician, the second to immunize those children in families who could not afford to pay any fee.

The Bucks County Society held six regular and three special meetings during the year. The special meetings were called to discuss matters concerning Public Health and Medical Economics. The attendance at these meetings was excellent—as high as 75.

The society celebrated the 85th anniversary of its founding at the November meeting. This meeting included a testimonial dinner to the faithful Secretary, Dr. Anthony F. Myers, who has served in that capacity 38 years. State Health Day was also observed on this occasion.

Under the leadership of a Committee from this Society a campaign to immunize children against diphtheria was conducted. Toxoid injections were given by the family physician in his office; 2700 children were immunized.

A Committee was appointed to act as an Advisory Committee to the Red Cross Nursing Service of the County. This Committee was empowered to make

plans for a round table conference of representatives of the various health agencies, with a view to amalgamating all these agencies under the leadership of physicians.

The Chester County Society has been one of the most active along economic lines. The Society has sponsored the Mental Clinic as suggested by the State Society, and has organized and planned for the work of all Social Service organizations in the County, to be guided by its Committee on Public Relations.

The Delaware County Society held 11 meetings during the year, one combined with dentists and druggists, to which the physicians were invited as their guests. One special meeting was held during the year for the purpose of considering Medical Economics.

The Montgomery County Society has completed arrangements with the United States Public Health Service to have a survey made of health conditions in the county during the summer.

The Society sponsored the campaign for diphtheria immunization, but insisted that each child able to pay should present himself without delay to the physician of his choice, all others should present a note from the family physician or any reputable person, showing inability to pay for such service.

The Society celebrated Pennsylvania's second Health Day on Nov. 8, 1933. Dr. Joseph M. McFarland of Philadelphia was the guest speaker. His subject was "The Purpose of Modern Medicine." Motion pictures on health subjects were shown. About 250 persons were present.

A special meeting on Economics was held in May. Dr. Harold A. Miller spoke on Emergency Relief Work, Dr. Francis A. Faught and Dr. Seth A. Brumm of Philadelphia spoke on the work of the Philadelphia County Society Commission on Medical Economics.

The Society has been exceedingly active in contacting county papers for publishing the releases of the State Society, and has been rewarded by the knowledge that Montgomery County carries the highest number of releases of any county in the State.

Schuylkill County has had a very profitable year. The Society paid 21 more assessments to the State Society than last year, which shows a larger increase in membership than any other Society in the District.

The Society conducted a postgraduate course with the help and under the direction of President Guthrie. Six sessions were held and 41 members matriculated. The course was almost self-supporting. The Secretary states, "The postgraduate work was most successful, and the men I have contacted since seem to feel that we should make it a permanent affair for the benefit of our members."

The Councilor is most grateful for the courtesy shown him throughout the District when visiting the component county societies.

DR. FREDERICK J. BISHOP, SCRANTON, COUNCILOR FOR THE THIRD DISTRICT

To the President and House of Delegates:

The Annual Report of the Councilor for the Third Councilor District (Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, and Wayne Counties) is hereby submitted for your consideration.

Attention is again called to the continued activities of Lehigh, Luzerne, Northampton, and Lackawanna Societies in the number and character of their stated meetings. These societies continue admirably their postgraduate instruction; in addition, special meetings devoted to various subjects have been held. All meetings were well attended.

Carbon, Monroe, and Wayne-Pike, the smaller county societies of our District, still continue with their quarterly meetings at which, from reports received, there have been instructive programs with a fair attendance.

All the county societies in the District have responded very well in the activities suggested by our State Society Committees on Public Relations and Medical Economics, and most commendably as regards the State Emergency Child Health Program.

The Third Councilor District Meeting was held at Pocono Manor, Wednesday, June 20, 1934, at 10:30 a.m. (D. S. T.) with approximately 200 in attendance.

The principal speaker on the program was Dean DeWitt Lewis, M.D., Baltimore, Maryland, past-president of the A.M.A., who spoke on "Medical Economics," and from the numerous comments heard after this talk, Dr. Lewis certainly made an impression on those present. Other speakers on the program were President Donald Guthrie and President-elect Moses Behrend of the State Society. Reports were made by the District Censors. Appropriate talks were given by the Chairmen of the State Society Committees on Mental Hygiene and Conservation of Vision, Drs. J. Allen Jackson, Danville, and Samuel H. Brown, Philadelphia, respectively. Dr. Paul Correll, of Easton, being detained, President Guthrie was requested to speak for the Committee on Appendicitis Mortality. Mrs. W. Gilbert Tillman, Councilor for the Third Councilor District of the Woman's Auxiliary, also gave a short talk. The accommodations and surroundings at Pocono Manor were ideal as well as the weather.

Immediately after luncheon, appropriate testimonials were presented to the 13 present of the 23 members who were entitled to same by virtue of their being in practice 50 years or more. In the case of absentees the certificates were later mailed to them. The oldest man on the list was Dr. L. H. Gibbs, of Scranton, 88 years of age, in practice 61 years. After luncheon many remained to participate in the various sports which had been arranged.

The meeting was honored by the presence of three former presidents, Drs. Arthur C. Morgan, Harry W. Albertson, and Charles Falkowsky, Jr., also one visiting Trustee, Dr. George C. Yeager, of Philadelphia, each of whom gave brief talks. Your Councilor is grateful to all the speakers who participated in this meeting as well as to the District Censors for their brief but informative reports.

The Woman's Auxiliaries of the District are active and responsive to every and all requests made. No new auxiliaries have been organized since the last report. Activities are handsomely reflected by their various contributions to the Benevolence Fund.

I am glad to be able to refer to the institution of only one suit for alleged malpractice during the year. This is so unusual as to prompt the reference.

The second 1934 meeting of the Councilor Commission will be held after publication of this report, but before the House of Delegates meets.

DR. E. ROGER SAMUEL, MOUNT CARMEL, COUNCILOR FOR THE FOURTH DISTRICT

To the President and House of Delegates:

The Fourth Councilor District consists of Bradford, Columbia, Montour, Northumberland, Snyder, Sullivan, Susquehanna, and Wyoming Counties. The membership has increased throughout the District during the past year.

Postgraduate work, as sponsored by President Donald Guthrie, has been carried on in our District with great success.

In the northern part of the District the postgraduate seminars were carried on by Bradford, Sullivan, Susquehanna, Tioga, and Wyoming Counties. Tioga (New York) County physicians by invitation participated. Seventy members attended seminars at the Robert Packer Hospital in Sayre, where a splendid program was carried out. The successive subjects presented were: "Office Gynecology," "Dermatology," "Gastrointestinal Disease," and "Blood Dyscrasias."

In the southern section of the District splendid seminars were conducted monthly at the George F. Geisinger Memorial Hospital, Danville. Scores of physicians from Columbia, Montour, Northumberland, Snyder, and surrounding counties attended each meeting. Clinical material was furnished by the hospital, and a distinguished list of teachers was provided. The State Hospital at Danville also contributed in this work.

Our first Councilor District Commission Meeting was held at the Berwick Hotel, Berwick, on April 18, 1934. The purpose of the meeting and organization was discussed briefly, followed by a talk on "Mental Health," by Dr. S. J. Hawley, of Danville. "Unemployment Relief Payment" was discussed by Dr. C. B. Yost, of Bloomsburg; "How Well Are Your County Dues Collected?" by Dr. A. B. Davenport, of Tunkhannock; "Postgraduate Teaching," by S. D. Conklin, of Sayre. "Health Legislation and Workmen's Compensation Laws" and "Health Column Releases in County Newspapers" were also discussed at this meeting.

The general expression of those who attended was that the Commission Meeting was informative to the County Society Officers, and a unanimous vote was declared in favor of another meeting in the fall. The speakers stuck to their subjects and to the time allotted them. The meeting did not drag.

Several of our County Societies have entered into the Emergency Child Health movement, and are rapidly completing the physical examinations and reports.

The Councilor District Meeting was held at Forrest Inn, Eagles Mere, on Wednesday, July 18, 1934. The total attendance was 173. After opening remarks by the Councilor for the District, the following District Censors reported for their respective Societies: Dr. J. M. Higgins, Bradford County; Dr. J. E. Shuman, Columbia County; Dr. H. V. Pike, Montour County; Dr. C. M. Thomas, Northumberland County; Dr. F. A. Stiles, Susquehanna County; and Dr. W. W. Lazarus, Wyoming County.

President-elect, Dr. Moses Behrend, of Philadelphia, spoke on "Workmen's Compensation Legislation and the Need for Adequate Representatives of all Health Interests at Harrisburg." Dr. Behrend was followed by President Donald Guthrie, of Sayre, who spoke very enthusiastically of plans of the State Society Committee on Public Health Legislation, urging all present to work with the Committee throughout the year.

The reports of District Censors showed the District to be in a very flourishing condition, all the societies having held excellent meetings during the year with interesting programs.

Dr. John O. Bower, Chairman of the State Society Committee on Appendicitis Mortality, gave a wonderful talk on "Appendicitis Mortality." He accentuated the importance of this work by the use of slides, which graphically told the story. He was followed by Dr. Joseph P. Replogle, of Johnstown, a member of his

Committee, who also gave a very comprehensive and interesting discussion on "Mortality Reduction."

Dr. Shipley, of Baltimore, also spoke on this subject, and in his discussion stated: "Part of the mortality may be laid at the door of poor surgery."

Dr. J. Allen Jackson, Chairman of the State Society Committee on Mental Hygiene, then spoke on "The Early Stages of Mental Disorders—A Challenge to General Practitioners."

After an intermission, the members listened to a masterly paper on "Diseases of the Biliary Duct Apparatus," by Dr. Arthur M. Shipley, Department of Surgery, University of Maryland. Discussion was opened by Dr. Harold L. Foss, of Danville, and continued by Drs. Behrend and Guthrie.

Luncheon was served in Forrest Inn.

The Societies in the District are very much alive to public health questions. Nearly every County Society has had one joint meeting with the pharmacists and the dentists.

Several of the Societies have sponsored group health meetings, to which the public were invited. The District is keenly alive to legislative changes. On the whole, our year has been most successful and interesting.

The annual meeting of the Woman's Auxiliaries to the County Societies of the Fourth Councilor District was also held on Wednesday, July 18, 1934, at the Casino, Eagles Mere.

During the year one new suit for alleged malpractice has been instituted.

DR. CLARENCE R. PHILLIPS, HARRISBURG, COUNCILOR FOR THE FIFTH DISTRICT

To the President and House of Delegates:

It is a pleasure to report that though this has been in many ways a strenuous year, "All is well along the Potomac."

The meetings in the societies making up this District (Adams, Cumberland, Dauphin, Franklin, Fulton, Lancaster, Lebanon, and York Counties) have been well attended, filled with enthusiasm, with programs, both scientific and business, that have been worth while.

We held a Councilor District Commission Meeting in the Penn-Harris Hotel, Harrisburg, Jan. 10, 1934, which was attended by officers of all our county societies. Medical Economics problems were well presented and thoroughly discussed. We plan to hold another such meeting the third Wednesday in September, at which three organizational problems will be presented, and each member present will be asked to take part in the subsequent discussion.

Three of our County Societies—Adams, Lancaster, and York—are putting over the plans of the Emergency Child Health Committee with commendable zeal. Plans for follow-up corrective work to remedy the physical defects found are being formulated in each of the counties, we have been informed.

The reception in the counties of this District of the splendid plans of the State Medical Advisory Committee has been uniformly favorable, with many enthusiastic words of commendation, especially of the "free choice of physician" and "fee basis," as administered for the S.E.R.B. by their Director of Emergency Medical Relief, Harold A. Miller, M.D.

The same can be said of the plan for postgraduate seminars as so carefully worked out by our President, Dr. Donald Guthrie. All our societies apparently intend to adopt some plan or modification of the plan in the years to come. Some of them are working for

plans which will be permanent in operation, using the hospitals and their attending staffs, augmented by outside aid. Such a seminar was recently held in Harrisburg, at the Harrisburg Hospital, with an enthusiastic attendance of about 130.

The Societies in the counties on the west side of the Susquehanna River—Adams, Cumberland, Franklin, Fulton, and York—held the West Branch Councilor District Meeting at Graeffenberg Inn, Franklin County, on July 19. It was well attended. President Guthrie presented a paper on a surgical subject. Dr. J. O. Bower, of Philadelphia, discussed "Appendicitis Mortality." Dr. Paul A. Petrie of Harrisburg, representing the State Society Mental Hygiene Committee, spoke on "The Challenge to our Profession Involved in the Steady Increase in Mental Diseases." Dr. George C. Yeager of Philadelphia, Trustee and Councilor for the First District, in an eloquent address, presented many of the pressing economic problems troubling our profession. Altogether the meeting was a real success.

Dauphin, Lancaster, and Lebanon County Societies held a very pleasant picnic meeting at the Lancaster Country Club, with a good attendance from Lancaster but a poor one from Dauphin and Lebanon Counties.

The Woman's Auxiliaries in this District have been active and continue their good works. Their programs include local service work and in addition they have continued their much appreciated contributions to the Medical Benevolence Fund of the State Society.

Many of the newspapers of the District carry the Health Column releases furnished by the State Society Educational Committee in the name of the County Societies. In the majority of cases the newspapers of this Councilor District have a most friendly attitude toward the profession.

The Councilor has visited each County Society in the District, some of them four times, and has carried, he hopes, helpful messages concerning the interim plans of the House of Delegates, the President, the President-elect, and the Board of Trustees, with the earnest injunction that they be carefully considered.

One new suit for alleged malpractice was instituted in this District during the past year.

DR. AUGUSTUS S. KECH, ALTOONA, COUNCILOR FOR THE SIXTH DISTRICT

To the President and House of Delegates:

The complicated problems arising from sociologic, economic, and political unrest have naturally engaged the attention of the membership of the component societies comprising the Sixth Councilor District (Blair, Center, Clearfield, Huntingdon, Juniata, Mifflin, and Perry Counties).

The House of Delegates at its 83rd Annual Session widely requested through appropriate resolutions that certain fundamental problems be given mature deliberation during the year. The proper officers of the State Society and Committee Chairmen have followed the mandates of the House of Delegates by contacting the county societies on these problems. They included our own scientific advancement by County Society postgraduate study; the assumption of leadership in the line of illness prevention by sensitizing the public to the problems of cancer morbidity, appendicitis mortality, mental health, and the actual examination and care of children on Emergency Relief; the rendering of minimal medical care to those on Emergency Relief, preserving the physician-patient relationship through

our own county organizations and demonstrating a better medical service to the indigent. The fulfillment of these activities has been very gratifying in some counties; in others, through misunderstanding of the problems and the aims of the House of Delegates and officers, the work has been disappointing.

This has been the largest program ever given to or undertaken by county medical societies and served to demonstrate loyalty and self-sacrifice by the officers directing the growing function of medical activity in community life. The House of Delegates must consider whether this growing function with its ever increasing details can continue on a volunteer basis.

Our Councilor Commission, authorized by the House of Delegates at its 83rd Annual Meeting, held two meetings, the first on Oct. 19, 1933, and the second on Feb. 1, 1934. The subjects discussed included Benefits of Membership, Legislative Problems, Medical Service to the Indigent, Unemployment Medical Relief, and Workmen's Compensation. The meetings were of the round table type and their informal character brought out the true thoughts of the county society officers and committee chairmen composing the Commission. These meetings should be continued for it is the best method yet devised for directly conveying to our county organizations the policies being considered or already approved by the House of Delegates, the Board of Trustees, or State Society Committees.

Public Health Meetings were conducted in Philipsburg, DuBois, Clearfield, Huntingdon, Mount Union, and Lewistown during November, 1933. On Feb. 17, Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, spoke on "The Physician and Medical Care" before a public meeting held in Altoona, which was sponsored by the Rotary Club and the Blair County Medical Society.

On May 24, the Annual Councilor District Meeting was held at State College. The program this year consisted of the subjects that were emphasized by the 1933 House of Delegates as follows: "Legislative Problems," by C. L. Palmer, M.D.; "Medical Relief," by H. A. Miller, M.D.; "Appendicitis Mortality," by John O. Bower, M.D.; "The County Society and Community Mental Health," by J. Allen Jackson, M.D.; "Workmen's Compensation," by President-elect Moses Behrend, M.D.; "County Postgraduate Study," by President Donald Guthrie, M.D.; and "County Leadership," by Secretary Walter F. Donaldson, M.D.

The Blair County Medical Society was host to the Regional Cancer Meeting under the auspices of our State Society's Cancer Commission, which was held in Altoona, June 28. This was a combined scientific and public meeting with 400 physicians registering for the scientific meeting and over 1200 present at the public meeting. The guest speakers were Drs. J. A. Hepp, A. J. Bruecken, Maxwell Lick, B. Z. Cashman, T. G. Simonton, Joseph McFarland, S. J. Waterworth, H. L. Foss, and B. P. Widmann, of our State Society; and George W. Crile, Eugene Whitmore, and C. C. Little, Sc.D., of Cleveland, Washington, D. C., and New York City, respectively.

Emergency Child Health Committees have been formed and are active in Blair, Center, Huntingdon, Mifflin, Juniata, and Perry Counties. The opportunity to practice constructive preventive medicine on a large scale by taking the children of the unemployed to the participating physician's own office has proved a contribution of concrete value throughout our District. Many physicians, however, have misunderstood the motives actuating the undertaking of this work by county units, and fail to sense its value in preventing the intervention

of socialized medical practice between patient and physician.

The Medical Advisory Committees in the respective counties, after some misunderstanding as to the scope of Emergency Medical Relief service, are now reflecting great credit on the profession. These Committee members have given freely of their time in making it a success.

County Society representatives throughout the Sixth District have kept close personal contact with the representatives in the Pennsylvania Legislature, which has aided largely in the consideration of favorable health legislation in the rather numerous special Legislative Sessions.

While the economic problems have been emphasized, it was not to the detriment of the scientific meetings in this District. The high character of the scientific papers has been maintained throughout the year, showing interest in progressive scientific medicine.

Your Councilor and Trustee is grateful for the fine spirit and cooperation displayed by the officers and membership throughout the year. It has been a pleasure to serve.

DR. DAVID W. THOMAS, LOCK HAVEN, COUNCILOR FOR THE SEVENTH DISTRICT

To the President and House of Delegates:

The following is the report of the Trustee and Councilor for the Seventh Councilor District, including Cameron, Clinton, Elk, Lycoming, Potter, Tioga, and Union Counties. Cameron and Union Counties have no medical society; the physicians of Cameron County belong to the Elk County Medical Society and those of Union County are members of the Lycoming County Medical Society.

All the County Societies in the District have Committees for the State Emergency Child Health program, and with the exception of one county, the initial examinations and the periodic reexaminations have been completed. The doctors as a whole have cooperated very well in this worthy endeavor. The daily and weekly newspapers throughout this District have cooperated with the Educational Committee of the Board of Trustees and the Public Relations Committee by publishing the Health Column. Each County held a Public Meeting during October or November in celebration of Pennsylvania Health Day, and these meetings were well attended by the general public.

Our members have served satisfactorily under the various County Society Advisory Committees to County Emergency Relief Boards in rendering Emergency Medical Relief.

One Councilor Commission Meeting was held in the District and plans are being formulated to hold another meeting before the State Society Meeting at Wilkes-Barre.

The Lycoming County Society has organized for six postgraduate seminars as outlined by President Donald Guthrie, and will complete same before fall. Tioga County members have united with the Bradford County Society in the seminars being held at Sayre. Clinton County is joining with Center County and they expect to start their seminars the latter part of September.

The Annual Seventh Councilor District Meeting was held again at the Williamsport Country Club, Williamsport, Wednesday, July 11, 1934. One hundred and ten attended the meeting, which was addressed by President-elect Behrend and Secretary Donaldson of the State Medical Society. Dr. Emil Novak, Associate Pro-

fessor of Gynecology at Johns Hopkins University, Baltimore, discussed "Some Functional Gynecological Problems"; and Dr. Harvey F. Smith, of Harrisburg, read a very excellent paper on "Appendicitis." Dr. Harold A. Miller, Director of Emergency Medical Relief of the State Emergency Relief Board, and Dr. George L. Laverty, Chairman of the Medical Advisory Committee, spoke on the Emergency Medical Relief Program.

There were no suits for malpractice instituted during the year.

DR. GEORGE A. REED, ERIE, COUNCILOR FOR THE EIGHTH DISTRICT

To the President and House of Delegates:

The Eighth Councilor District, composed of the counties of Crawford, Erie, Forest, McKean, Mercer, and Warren, reports all county societies active during the past year, with programs of a high order, supplied by speakers of home talent as well as a number of outstanding members of the profession from various medical centers. The attendance at these scientific meetings has been good.

In three of the county societies Woman's Auxiliaries are organized and doing good work, and plans are also under way to organize auxiliaries in the other counties in the District.

Pennsylvania Health Day was observed in Erie County on Dec. 6, 1933, with Bernard H. Nichols, M.D., of the Cleveland Clinic, giving a lecture on "Public Advances in Health Down Through the Years," which was well received by a representative audience.

In Erie County Society the Public Relations Committee has been active, furnishing items to the newspapers, and a year-round regular radio program.

The Mercer County Society has as usual given fine response to all Public Relations suggestions, and their Economics Committee has been very active.

No suits for alleged malpractice have been brought in the District during the past year.

The Emergency Child Health program has been actively carried on in McKean and Warren Counties, while Erie, Mercer, and Crawford are inactive along this line.

The annual meeting of the Eighth Councilor District was held at Cambridge Springs, on August 15, with President-elect Behrend, Secretary Donaldson, and Councilor Anderson of the official family present. Dr. Maxwell Lick, of Erie, a member of the State Society Appendicitis Mortality Committee, made a strong appeal to the medical profession on this subject in a very able manner. This was followed by the presentation of a Symposium on the Medical Economics Problem which is embodied in the following program: "Sensitizing the Legislature," by Dr. C. L. Palmer, Chairman of the Committee on Public Health Legislation; discussed by Dr. James D. Stark, a member of the same Committee; "Sensitizing the Public," by Dr. William H. Mayer, Chairman of the Committee on Public Relations; discussed by Dr. P. E. Biggins of Mercer County; "Corrective Plans Devised," by Dr. Max H. Weinberg, a member of the Committee on Medical Economics.

Those in attendance representing four county societies in addition to the five within the Eighth District, were impressed with the evidence presented of the great amount of work being undertaken by the State Society Committees on Public Health Legislation, Medical Economics, and Public Relations. It was particularly heartening to have with us also an officially appointed delegate from the State organizations of dentists, pharma-

cists, and nurses, R. J. Sample, D.D.S., Andrew Heyl, Ph.G., and Miss Maude Smith, R. N., respectively, who took part in the discussion on the subject and pledged coöperation in all our State Society endeavors in behalf of the topics of the day. The meeting was a pronounced success.

An interesting feature of this meeting was the presentation of a framed testimonial to each of eight physicians, members in this District, who have been in the practice of medicine 50 or more years.

At the present time there are eight newspapers in the counties of this District (except Warren County) which are publishing the Health Column released through the Public Relations Committee of our State Society in the name of the various county societies.

DR. ALEXANDER H. STEWART, INDIANA, COUNCILOR FOR THE NINTH DISTRICT

To the President and House of Delegates:

The societies comprising the Ninth Councilor District (Armstrong, Butler, Clarion, Indiana, Jefferson, and Venango Counties) have for the most part taken an interest in the activities sponsored by the State Society, namely, Emergency Child Health Relief and Emergency Unemployment Medical Relief. Many difficulties have been encountered in both these projects in this District, which is largely rural, but most of these have been overcome and the projects have been fairly successful. Not much interest has been taken in the postgraduate work as advocated by President Guthrie, but we feel this is rather because of the present economic conditions than because of an indifferent attitude.

The Annual Councilor District Meeting was held at Polk State School, and while the attendance was small the programs, both scientific and organizational, were excellent. Venango County Society was host and under the leadership of Dr. Harvey M. Watkins, Superintendent of the School, all present had a delightful time, an excellent dinner, and courteous treatment. An inspection of the buildings, grounds, and character of work being done at the school was most enlightening.

The scientific program was presented by Drs. James S. Taylor of Altoona and Robert L. Anderson of Pittsburgh. The former discussed "The Survey of the Problem of Sterility," presenting many new and instructive phases of this subject. The latter presented numerous helpful suggestions in his talk on "Recent Developments in Diagnosis and Treatment of Urological Conditions." Both of these talks were enthusiastically received and much appreciated.

Dr. William H. Mayer, Chairman of the Public Relations Committee of the State Society, in his usual emphatic and scholarly manner presented the policies and problems of his Committee in his talk on "Sensitizing the Public." Dr. C. L. Palmer, Chairman of the Public Health Legislation Committee, talked on "Sensitizing our Law-makers," and in a very forceful manner presented to the audience plans for accomplishing this task and pleaded for the assistance of every member of our county societies and the members of the various Woman's Auxiliaries in the District. District Censors gave reports for all the societies in the District, and each reported commendable activities. I commend to each society in the Ninth District a valiant effort to increase its membership.

Following the luncheon the Councilor presented framed certificates to members in the District who had practiced medicine for 50 years or more. Thirteen members were recipients of these testimonials of faith-

ful performance of duty in their respective communities and to their loyalty to medical organization.

All the county societies held regular meetings and report that their programs are interesting and attendance good. Good will is present in most of the societies and should so continue, as this is no time for dissension in our ranks. We have too much at stake in the very near future to trifle with petty grievances and jealousies, and we should present a united front for the struggle which confronts not only our profession but the interests of our patients and the public at large.

DR. ROBERT L. ANDERSON, PITTSBURGH, COUNCILOR FOR THE TENTH DISTRICT

To the President and House of Delegates:

The first meeting of the Councilor Commission of the Tenth Councilor District was held Dec. 5, 1933, at the General Brodhead Hotel, Beaver Falls. Since the chief problems for discussion included those of public relations and public health legislation, the chairman of each of these committees was invited to attend. Every county in the district had a good official representation.

Since the plan for paying physicians for rendering authorized medical services to recipients of unemployment relief took effect five days before the meeting of the Commission, this matter was discussed in detail. Other subjects discussed included the workmen's compensation law, the survey of State-owned hospitals, and the news releases from the Educational Committee of the Board of Trustees.

It was the unanimous opinion that this meeting accomplished the purpose of developing a closer relationship between the State Society and the component county societies by the interpretation of state-wide policies in the light of localized situations and by the consideration of local problems in the light of state-wide policies. Besides the development of a closer State society-county society relationship, however, this meeting also provided for a closer inter-relationship between the county societies themselves. This is typified in the suggestion of President C. H. Lamon, of the Westmoreland County Medical Society. Dr. Lamon proposed that each county society in the district (with the possible exception of Allegheny County), select the best three papers read at scientific meetings during the year, and arrange to have these three papers read at each of the other county societies.

The second meeting of the Councilor Commission was held on May 3, 1934, in conjunction with the Councilor District meeting at Greensburg. This meeting was devoted largely to a discussion of emergency medical relief. Dr. Harold A. Miller was present to explain the program in detail and to answer questions.

The Councilor District Meeting was an outstanding success. Several hundred physicians were present. The scientific program was under the direction of the Westmoreland County Medical Society, which conducted its annual clinic sessions as a part of the day's program. The Councilor wishes to take this opportunity to acknowledge publicly his appreciation for the coöperation received from the Westmoreland County Medical Society and to express his congratulations to the Society upon the excellence of the scientific presentations and the unusual quality of the hospitality shown by the local physicians.

Dr. Dean Lewis, who was then president of the American Medical Association, discussed several clinical cases besides addressing the Councilor District Meeting on "The Restoration of the General Practitioner." Other

subjects discussed at the Councilor District Meeting together with the respective speakers follow: "State Society Activities," Donald Guthrie, M.D., President, The Medical Society of the State of Pennsylvania; "The State Psychiatric Hospital and Its Relation to Mental Hygiene Problems," Charles H. Henninger, M.D., Member, State Society Committee on Mental Hygiene; "Problems in Appendicitis Mortality," John W. Shirer, M.D., Member, State Society Committee on Appendicitis Mortality; "Today's Legislative Problems," A. H. Stewart, M.D., Chairman, Committee on Public Health Legislation of The Medical Society of the State of Pennsylvania; Concluding Remarks, Walter F. Donaldson, M.D., Secretary, The Medical Society of the State of Pennsylvania.

It is a pleasure to report that the four county societies of the Tenth Councilor District (Allegheny, Beaver, Lawrence, and Westmoreland) have maintained their membership without loss, have continued the high quality of their scientific presentations, and have expanded and intensified their activities regarding the political, social, and economic aspects of medical practice.

Probably the most important accomplishment in this regard during the past year was the establishment of the Joint Conference Committee in Allegheny County.

On April 12, 1934, at the instance of the Public Health Legislation Committee of the Allegheny County Medical Society, a meeting was held, to which representatives were invited from the following organizations: Allegheny County Homeopathic Medical Society, Allegheny County Retail Druggists' Association, Eclectic Medical Association of Pennsylvania, Hospital Conference of Pittsburgh, Odontological Society of Western Pennsylvania, Pennsylvania Nurses' Association, District No. 6, Pittsburgh Homeopathic Hospital Auxiliary, Woman's Auxiliary to the Allegheny County Medical Society.

At this meeting the Joint Conference Committee, consisting of official representatives from all the organizations mentioned above, was organized. Dr. C. L. Palmer, a member of the Public Health Legislation Committee of the Allegheny County Medical Society, was named as Chairman of the Joint Conference Committee, and Lester H. Perry, Executive Secretary of the Allegheny County Medical Society, was named as Secretary of the Committee.

The chief purpose of the Joint Conference Committee is to coördinate the activities of recognized groups which are definitely interested in health legislation. In furtherance of this aim the Committee submitted to each Allegheny County candidate for the Pennsylvania House and Senate a questionnaire consisting of 14 pertinent questions. After a careful consideration of all questionnaires returned, the Committee published a list of approved candidates.

The number of legislative candidates, excluding duplications caused by virtue of dual nominations, totals 57. There were 22 approved candidates nominated.

The importance of the creation of the Joint Conference Committee cannot be overemphasized. It is our belief that this unification of interest and coördination of activity in relation to public health legislation on the part of dentists, hospital executives, nurses, medical auxiliaries, and physicians means more to the ultimate consummation of a constructive health legislative program than any other single accomplishment.

Four new suits for alleged malpractice were instituted in this District during the past year.

One malpractice suit occurring in the Tenth Councilor District during the past year so aptly demonstrated the importance of adequate records that it should prob-

ably be mentioned in this report. It is an accepted fact, of course, that good medical practice requires, from a professional medical point-of-view, the maintenance of adequate records. In this case, however, the records proved valuable in a rather unusual way from a legal point-of-view.

The basis of the plaintiff's complaint was that the physician in question failed to respond to a night call from the home of a woman visited the previous day and seriously ill, and who, 12 hours later, died. The physician, however, maintained that the call had never been received.

After determining from the plaintiff's testimony the time of night the call was alleged to have been requested, the physician checked his records which indicated that on the night upon which the alleged call was made he had been obliged to remain all night at the home of another patient seriously ill. Members of this household corroborated on the witness stand the testimony of the physician.

As a result the judge ordered a directed verdict in favor of the physician defendant.

With regard to the Pennsylvania Emergency Medical Relief Plan, the Councilor desires to acknowledge the excellent work done by the Medical Advisory Committees and to commend publicly the coöperation displayed by the participating physicians under extremely trying circumstances.

The Emergency Child Health Committees in the 4 counties are definitely organized. In Allegheny and Westmoreland Counties the work has progressed to such an extent that several preliminary reports have already been issued. The information being disclosed by the fact-finding endeavors of these committees constitutes one of the most important contributions ever made to the solution of Pennsylvania's public health problem. The administration of such a survey is no easy task, and the committees are to be congratulated upon the successful progress which they are making in this important activity.

DR. ARTHUR E. CROW, UNIONTOWN, COUNCILOR FOR THE ELEVENTH DISTRICT

To the President and House of Delegates:

Our County units have acquitted themselves so well during this past year as to be above criticism. Our postgraduate work in some counties has not measured up to the call of President Guthrie, but in such counties as Fayette, Washington, and Cambria there is a class of work being conducted which will compare favorably with most counties.

Our State Medical Society has during the past year been brought face to face with more serious problems perhaps than its history has previously recorded. At this time it is impossible to anticipate the future, or to prepare a definite framework upon and from which to work. In this so-called "New Deal" period, certain contributory measures have been forced upon us. We all realize, in part at least, the troubles ahead of us. Because of that unknown quantity, unanimity of action is now more than ever before essential to satisfactory outcome.

Relative to the Emergency Child Health Program in the 11th District, I believe it speaks for itself. Under the Chairmanship of Dr. Charles H. Smith, of Uniontown, Fayette County has become the outstanding field of our State for the many and varied Emergency Child Health Committee activities. Dr. Smith has spent time, energy, and money to place his own county where it belongs among those occupying a topmost position.

The program as outlined by the State Society Chairman, Dr. Samuel McC. Hamill, of Philadelphia, has been closely followed with remarkable results, especially with the corrective measures and nutritional instruction for the children who were so desperately in need of same. So many more defects were uncovered than one would have expected to find in a survey of this character, but with the magnificent coöperation we have had from all participating groups we have attained more splendid results than we dared anticipate.

(Quoting Dr. Smith) "One feature of this program, which has done and will continue to do more good than any other measure which has been stressed, is that of Nutritional Demonstrations and the instruction which accompanies them. This part of the program will, if still carried forward, not only correct the outstanding amount of malnutrition which has been uncovered, but will also prevent its recurrence. These demonstrations have been gratefully received and much appreciated. Many letters and verbal reports have been received asking that they be repeated and highly commending the work. Thirteen thousand children have been examined and nutritional demonstrations given before 7000 mothers."

In Washington County also under the Chairmanship of Dr. Robert A. Knox, the Emergency Child Health Committee has performed a remarkable service to the children on relief in the county.

Emergency Medical Relief service has been administered by the various Medical Advisory Committees throughout the 11th District in a manner characteristic of the best traditions of the medical profession. The unsung and unappreciated work of these Advisory Committees has been extraordinary. The character of the professional service and the moderateness of the fees accepted for same by the participating physicians of the District has with but one or two exceptions been most praiseworthy. We have attempted at all times to recognize the emergent nature of the service with the hope that industrial restoration would soon render it no longer necessary.

At the present time 27 daily and weekly newspapers in the District are publishing the State Society's "Health Column."

Our Councilor District Meeting held at the Summit Hotel, East of Uniontown, should have climaxed any meeting of its kind we have yet held. The program was too long, and our apologies go out to Dr. Wheeling, our District Censors, and other scheduled speakers for our failure to reach them on the program. Dr. Moses Behrend, President-elect of our State Society, Dr. James H. Corwin, Washington, Dr. Horace B. Anderson, Johnstown, and Dr. Elliott B. Edie, Uniontown, contributed to a successful meeting. Dr. P. Brooke Bland, of Philadelphia, as usual in a masterful way presented his subject, "Intracranial Injuries of the Newborn." One hundred fifty registered their attendance. The Summit Hotel is an ideal spot for such a meeting.

REPORTS OF STANDING COMMITTEES

COMMITTEE ON PUBLIC HEALTH LEGISLATION

To the President and House of Delegates:

Since the last annual session of The Medical Society of the State of Pennsylvania the Legislature was called in special session by the Chief Executive of the State. The call contained 13 specific points for consideration.

In this call the points in which your Committee was most interested were Appropriations to the Department of Health, Workmen's Compensation Law Amendments, Unemployment Insurance, Old Age Assistance, and Unemployment Relief.

The total number of bills introduced in the House was 214; in the Senate, 109; total, 323.

The total number of bills passed in the House was 75; in the Senate, 49, total, 124.

The total number of House bills passing both Houses was 46; total number Senate bills passing both Houses, 39; total, 85.

The total number of bills approved by the Governor was 67; vetoed by the Governor, 18.

The bills of most interest to our membership were the proposed Amendments to the Workmen's Compensation Act; of these none was prepared either by or after consultation with your Committee, or with our Board of Trustees. Being convinced that no Workmen's Compensation legislation likely to increase present compensation costs to the employer would be approved in the special session, and being dissatisfied with the amendment recommending but one consultation with the injured employee's choice of physician at a fixed fee, your Committee did not disturb the amendments which were in legislative committee, deeming it wise to await the next regular session of the legislature, when broader and more adequate amendments could be prepared and introduced.

The 1933 House of Delegates instructed our Committee to have, if possible, laws enacted or existing laws amended so as to provide the equivalent of a so-called Lien Law covering compensation for services rendered by physicians and hospitals to the victims of highway motor accidents. It was found impracticable under the call to the extraordinary session of the Legislature since last October to introduce such legislation.

A study of the situation brought out the following facts for which we are obligated to Secretary J. G. Crownhart of the Wisconsin State Medical Society:—"Ten states have passed a so-called Lien Law; in three of these it includes physicians as well as hospitals. The low percentage of accidents under which any recovery can be had (with only 13 per cent of motor vehicles insured) indicates at once that such legislation covers only part of the field. It is certain that it is not a solution to the major part of the question. It is the almost universal experience that lien laws, when enacted, are not self-operative; that they involve a legal procedure; and that the procedure to utilize the law is both detailed and frequently technical. These experiences suggest that we pause before we seek further legislation to make certain that when the legislation is obtained it will be workable in fact as well as in theory."

On March 1, 1934, your Committee met and outlined a general plan to be suggested to the legislative committees of the component societies. A copy was sent to the county society officers and legislative committee chairmen relative to the May Primary election, and to the legislative and executive candidates, as to their attitude toward health interests of the public and the maintenance of high standards of medical practice.

Your chairman tendered his resignation to President Guthrie and the Board of Trustees at their May meeting and it was accepted. Dr. C. L. Palmer of Pittsburgh was appointed chairman.

I wish to thank all the officers and members of the Society for their very excellent coöperation during my term as Chairman of this Committee. I also wish in behalf of our Committee to express deep appreciation to

Committee Member Dr. Steedle, also Drs. Davies, Hartman and Merrell, members of the House of Representatives; and to Drs. Bell, Chapman, Woodward, and Hunsicker, members of the Senate, for unselfish help and sincere interest in the work of your Committee.

In closing I request for my successor as Chairman, Dr. Palmer, and his fellow members on the Committee the same excellent support so freely given me. I wish to assure the Committee on Public Health Legislation of my assistance at any time or place I may be called upon.

ALEX. H. STEWART, *Chairman*,

JOHN J. BRENNAN,

ARTHUR P. KEEGAN,

JAMES D. STARK,

JOSEPH G. STEEDLE.

To the President and House of Delegates:

The following is a report of the Committee on Public Health Legislation of The Medical Society of the State of Pennsylvania from May 1, 1934, to August 1, 1934, which is the period of time during which Dr. Palmer served as Chairman of the Committee. Dr. A. H. Stewart, former chairman, has prepared a report from August 1, 1933, to May 1, 1934.

Since May 10, efforts have been put forth to organize a Public Health Legislative Conference in each county of the State; also a Public Health Legislative Conference of the State of Pennsylvania, consisting of representatives of The Medical Society of the State of Pennsylvania, Homeopathic Medical Society of Pennsylvania, Eclectic Medical Society of Pennsylvania, Pennsylvania Pharmaceutical Association, Odontological Society of Pennsylvania, Nurses' Association of Pennsylvania, Hospital Conference of Pennsylvania, and Woman's Auxiliaries to the County and State Medical Societies.

Your Committee met at Pocono Manor on June 20, 1934, at which time your Chairman was authorized to proceed with the organizations and map out a plan.

This was done and each member of the Committee was assigned a number of counties in his geographic district in which he was authorized to supervise the organization.

Letters were also sent to the Chairmen of the Public Health Legislation Committees, with copies to the President and Secretary of each county medical society instructing them in the procedure of organization. The response has been fair considering the fact that we are in an inactive season. Nine county societies have passed favorably on this plan and more are coming in each week. The personnel of the State Conference is in our hands and will be organized in the very near future.

The future is very indefinite, but coöperating with your Committee we will have an organization of sufficient power to influence proper legislation pertaining to Public Health. Your Committee will keep their organizations in an active state and ready to work on a very short notice.

The work of your Committee is of such a widespread and variable nature that it is hard to lay out a definite program for the future, but with a good organization behind us we shall endeavor to safeguard the public health of the State.

Your Committee would like at all times to know the sentiment of the members of The Medical Society of the State of Pennsylvania regarding a change in our system of practice, whether the membership is for or

against state medicine in the form of voluntary or compulsory health insurance, or any other form which legislative proposals may contemplate.

Respectfully submitted,

C. L. PALMER, *Chairman*,
JOHN J. BRENNAN,
ARTHUR P. KEEGAN,
JAMES D. STARK,
JOSEPH G. STEEDLE.

COMMITTEE ON PUBLIC RELATIONS

To the President and House of Delegates:

To review in detail all the activities of the Committee on Public Relations during the past year would necessarily make for repetition, inasmuch as our contacts have been so widespread.

Committee Meetings: A full committee meeting of the Public Relations Committee was held at Harrisburg on Dec. 13, 1933, at which time Dr. W. H. Mayer was reelected Chairman and Dr. Norbert D. Gannon was elected Secretary for the coming year. The subcommittee on Periodic Health Examinations was again placed under the chairmanship of Dr. Robert M. Alexander, and the addition of certain members to this committee received the full approval of the committee.

At this meeting the following recommendations were made to the Board of Trustees relative to an outline for publicity during the coming year:

Resolved, That the Committee on Public Relations advise the Board of Trustees and the House of Delegates that, after mature consideration, it is its firm belief that committees or commissions for the study of medical economics should remain advisory councils, and direct public pronouncements as to policy or conclusions should be made only through the executive officers or standing committees of the Society under the direction of the Board of Trustees.

Resolved, That the medical profession shall locally be actively interested in the character of school health work upon a basis of efficiency and practicability.

Resolved, That full-time employees of the State or subdivisions thereof should be supervised and limited in their activities by medical organization in so far as extra-mural practice is concerned.

Resolved, That the Committee on Public Relations of The Medical Society of the State of Pennsylvania shall attempt to correlate the efforts of various groups for the study and alleviation of deafness and blindness, and render available such service under direction of local county medical societies.

Resolved, That the Public Health Educational Program begun this year shall be continued, and that the Board of Trustees be advised to provide sufficient funds for the enlargement of this effort.

Resolved, That the medical profession should be adequately represented in the directorship of all public health agencies.

Resolved, That the medical profession, through its Public Relations Committee, should begin orderly propaganda to bring back the understanding on the part of the public now receiving free medical service, to the realization that with the termination of the depression the medical profession can no longer be expected to extend this philanthropy.

Resolved, That Sectional meetings of the Committee on Public Relations of The Medical Society of the

State of Pennsylvania be held at various points throughout the State during the year.

Resolved, That the Board of Trustees provide ways and means for a lecture on medical organization to medical students each year, and that this instruction also be given the interns of the various hospitals during their intern year by one of the local hospital staff.

Resolved, That the Committee on Public Relations advise the Board of Trustees of The Medical Society of the State of Pennsylvania to provide necessary funds for the employment of sufficient representatives under direction of the Secretary to act as mobile representatives of the officers and trustees of the State Society to conduct such surveys or execute such missions as shall be approved by the Board of Trustees on recommendation of the standing committees, or for its own purposes of administration.

Resolved, That the Public Relations Committee call to the attention of the Board of Trustees the growing activity of cultists and drug houses, of radio broadcasting, cures, treatments, extravagant claims and unethical preparations, all of which are detrimental to the health of the public.

These recommendations were, without exception, approved by the Board of Trustees.

From time to time various schemes for the socialization of medicine which had received publicity have been sent to the several members of the Committee for their reactions in case public expression should be requested of The Medical Society of the State of Pennsylvania. The responses from our Board of Trustees and members of the Committee are filed and may be used as a basis for public reply. The Committee is careful to avoid defining any policy other than that which has been announced by our House of Delegates. It is perfectly evident that it is necessary to have at hand the immediate reactions of the leaders and officers of our Society in order that we may recommend to the House of Delegates what we believe to be good public policy.

Public Education: Your Committee has continued to extend its utmost facilities, and that of its office force, in the campaign for distributing newspaper material throughout the State provided by the Educational Committee of the Board of Trustees. As a result of our efforts, and the fine coöperation of the representatives of the Public Relations Committees in most of the component societies, the news releases and health articles prepared by the lay editorial writer associated with the Educational Committee are, at the present writing, being published in 62 daily and 83 weekly newspapers throughout the State, with a total representation of 52 counties. This number exceeds last year's circulation by a total of 70 additional newspapers, equally divided between daily and weekly publications. This effort toward establishing in the minds of the reading public the health leadership of the county medical society has proved of distinct value to the medical profession and the public alike. Enthusiastic comment from both editors and readers as to its attractive style and reader interest testify to its favorable significance and reception.

It remains true, however, that local progress will be consolidated only in direct proportion to local endeavor from the Public Relations Committees or other active members of the various component societies.

Periodic Health Examinations.—The Subcommittee on Periodic Health Examinations met with Deans or their representatives of all the medical schools in Pennsylvania at the Bellevue-Stratford Hotel in Philadelphia on Oct. 4, 1933, at 12 o'clock noon. The purpose

of the meeting was to acquaint the Deans of Medical Schools with the plans and desires of the Committee. Especially did the Committee wish to impress upon the teaching fraternity the importance of teaching modern Health Examination procedures to undergraduates.

As a result of the meeting two of the Philadelphia Schools invited members of our Committee to give lectures to undergraduate students. These lectures were given by Drs. Edward L. Bortz and Francis A. Faught.

A Committee meeting was held April 6, 1934, with all members present. It was held in the building of the Philadelphia County Medical Society.

The following matters were given consideration:

(1) The type of teaching on the subject of periodic health examinations in Pittsburgh as outlined by Dr. Gilbert B. Meyers, who submitted for our inspection a Roster which he had prepared, and in which it was noted that our courses were limited to very few, and a fee was charged. The method was considered successful.

(2) The program for a series of four Postgraduate Seminars which was arranged for our Committee by the Secretary was presented, to be given the members of the Philadelphia and surrounding County Medical Societies.

(3) The matter of carrying this information, including the Pittsburgh lectures, to all members of the Society through the preparation of a pamphlet to be financed by the State Society, was discussed by the Committee and it was the consensus of opinion that this should be done.

(4) The matter of revising the State Society blank for the performance of periodic health examinations was again discussed, and all agreed that the present blank should be changed in the direction of simplicity, and each member further agreed to suggest such changes as appealed to him personally. It was further agreed that each member submit to the secretary of the Committee his suggestions, which would then be embodied in a circular report to be sent each member for criticism and further suggestion.

Pennsylvania Health Day—1934.—Pennsylvania Health Day for 1934 will be under the direct leadership of the medical profession, with full coöperation and assistance of the Pennsylvania Department of Health. Previously this day has been held in direct conjunction with the Department of Health, and the change in administrative activity is at the specific request of the Secretary of Health. The most cordial relationship exists and the valuable assistance of this thorough-going Health Department is at our complete disposal.

In all Councilor Districts, Pennsylvania Health Day has been observed, although some counties have not felt that the effort was a complete success. Your Committee is therefore endeavoring in such instances to lend its assistance and bring to such counties the benefit of experience elsewhere in order to foster local medical leadership. While the immediate result may not be of manifest benefit, it is certain that this endeavor has good public relations value. We therefore request the support of our county societies and of their individual members in this most worth-while program.

State Emergency Medical Relief.—The necessity for emergency medical relief under medical leadership became of such paramount importance in the State of Pennsylvania during 1933 that the State Emergency Relief Board requested The Medical Society of the State of Pennsylvania to assume certain responsibilities in devising and executing this unemployment medical re-

lief program. It is perfectly evident that the public position of the medical profession in this matter had to be one of tolerant understanding of the difficulties surrounding so tremendous a task.

Early in the past year, therefore, your Committee recognized the necessity for its active assistance in correlating the efforts of our State and local medical society officers with regard to this State Emergency Relief Administration. Well recognizing the opportunity to demonstrate medical leadership in the sickness phase of this emergency, your Committee hastened to caution all local county medical societies against hasty public pronouncements reflecting immediate reactions. It is most heartening to note that practically without exception there has been a splendid response on the part of the county medical societies.

We believe that our public position has been greatly enhanced by the endeavors of the physicians of this State to recognize a great civic duty in endeavoring to keep this program strictly within its economic limits.

We have been quietly, and we believe, with dignity, calling attention to the tremendous contributions on the part of the medical profession during this period of stress, without confusing the issue by the injection of financial statistics. At first this seemed a proper method of approach, but acting under the advice of national leaders, we have subsequently confined our publicity to general expressions.

Anticipation of Socialization Propaganda.—In July, 1934, the Public Relations Committees of the component societies were circularized advising against a threatened campaign of propaganda designed to destroy the present type of medical practice.

The suggestion was made that all organizations be contacted and that local publications be apprised of the nature and origin of this campaign. It was further asserted that the basis of our defense should be on the point of medical service in nations where socialization has been on trial against the type of medical service provided in our own Commonwealth and Nation. Your committee has in preparation full assistance for local public relations committees in this endeavor. We are attempting through our press contacts to provide intelligent publicity throughout the State on the subject of socialization as it applies to medical practice.

Our recommendation, therefore, is that these efforts be continued and amplified and nothing be spared in the way of providing a just and equitable decision on the part of the public in the face of an inevitable attack upon the foundations of medical practice.

Your Committee on Public Relations requests an understanding coöperation between the local county medical societies and the State Committee. We can speak only in the highest terms of the fine spirit which has been shown to date, and we hope for the continuation of efforts toward coördinate activity.

We believe that unanimity in all publicity is our most valuable asset.

Respectfully submitted,

WILLIAM H. MAYER, *Chairman*,
NORBERT D. GANNON, *Secretary*,
JOHN P. HARLEY,
JAMES D. HEARD,
WILMER KRUSEN,
ROBERT M. ALEXANDER,
GEORGE H. CROSS,
CHARLES FALKOWSKY,
CHARLES F. NASSAU.

COMMITTEE ON NECROLOGY

To the President and House of Delegates:

It is the regretful duty of your Committee on Necrology to announce that during the past year our Society has lost by death 152 members. This constitutes a great loss to our profession. These members have given their lives to the service of humanity, sacrificing themselves to the suffering and afflicted, never questioning. When duty called, it was theirs to obey.

We honor their memory, and would emulate their devotion to our glorious profession. Let us take heed and do our work in such a way as to receive the commendation of Him who said, "They may rest from their labors, and their works do follow them."

The names of these deceased members have been recorded monthly in the PENNSYLVANIA MEDICAL JOURNAL, also in the *Roster* of the Society, so will not be included in this report.

The Committee take this opportunity to impress upon the Secretaries of the component societies the importance of prompt notification of the office of the Secretary of the State Society of the death of any members occurring among their membership. Blanks for this purpose are furnished each county society secretary.

Respectfully submitted,

ROBERT G. BARCKLEY, *Chairman*,
*PERLEY N. BARKER,
WALTER F. DONALDSON,
SPENCER M. FREE,
EDWARD R. GARDNER.

COMMITTEE ON MEDICAL BENEVOLENCE

To the President and House of Delegates:

Your Committee on Medical Benevolence has had an active year in the benevolent work of this Society. Twenty-four persons have received assistance from the Fund during the past 12 months. There were 18 continued from Sept. 1, 1933; 6 were approved for assistance; and 1 discontinued, the latter becoming able to care for himself; leaving 23 beneficiaries on the list Sept. 1, 1934.

Our Benevolence Fund has been most helpful in bringing comfort and relief to this group of persons who have been in great need, and some very appreciative letters have been received from our beneficiaries. Increased usefulness of the Medical Benevolence Fund should continue, and we believe it will. It will be observed that we begin this fiscal year with the largest number of beneficiaries since the Fund was established.

Once again we wish to express grateful appreciation to the members of the various Woman's Auxiliaries for their invaluable contributions to the Fund, amounting during the year to \$2720.35. This entire amount has been turned over to the Treasurer of the Benevolence Committee for its current use.

The report of the Treasurer of the Committee follows:

BALANCE ON HAND AUGUST 31, 1934	....	\$569.53
RECEIPTS		
From Treasurer Lowman—contributions from Woman's Auxiliaries:		
Oct. 13, 1933 (for 1933)	.....	\$2546.50
Aug. 7, 1934	.....	1840.00
Aug. 17, 1934	.....	880.35
From Treasurer Lowman—interest on investments:		
Dec. 1, 1933	.....	1425.00
Feb. 8, 1934	.....	981.23

* Deceased.

May 12, 1934	.....	\$1325.00
July 7, 1934	.....	798.13
Aug. 17, 1934	.....	283.14
Refund on loan, April 8, 1934	.....	600.00
Check No. 505 returned May 29, 1934	..	25.02
		\$10,704.37
		\$11,273.90

DISBURSEMENTS

September, 1933	.....	\$325.00
October, 1933	.....	275.00
November, 1933	.....	1205.00
December, 1933	.....	945.00
January, 1934	.....	345.00
February, 1934	.....	1350.00
March, 1934	.....	345.00
April, 1934	.....	345.00
May, 1934	.....	1350.00
June, 1934	.....	450.00
July, 1934	.....	285.00
August, 1934	.....	1375.00
Federal tax on checks	.....	3.32
		\$8598.32

BALANCE ON HAND AUGUST 31, 1934 \$2675.58

Respectfully submitted,

HOWARD C. FRONTZ, *Chairman*,
EDWARD B. HECKEL, *Treasurer*,
CLARENCE R. PHILLIPS,
WALTER F. DONALDSON.

COMMITTEE ON SOCIETY COMITY AND POLICY

To the President and House of Delegates:

The Committee on Society Comity and Policy has had no problems referred and has held no meetings thus far during the past year.

Respectfully submitted,

J. NORMAN HENRY, *Chairman*,
THEODORE B. APPEL,
WILLIAM T. SHARPLESS,
ELMER L. MEYERS,
J. ANSON SINGER.

COMMITTEE TO CONFER WITH GOVERNMENTAL AND PRIVATE HEALTH AGENCIES

To the President and House of Delegates:

This Committee has functioned during the past year as formerly, different members being assigned to contact the various health organizations of the State. During the year the Committee has lost its valued Chairman, Dr. Joseph J. Meyer, by death. His passing has meant a great loss both to his county and State societies. This Committee wishes to register its sorrow and sense of loss.

The component societies have reported a general active relationship with their neighboring dental organizations. Eighteen direct reports were received from county society secretaries. These contacts have included meetings with dental societies, at which representative addresses were made.

The State Dental Society met in Pittsburgh in May, and on invitation was addressed by a member of the Allegheny County Medical Society. "Results of Focal Infection," "Heart Disease and Arthritis," and other subjects were presented before the Odontological Society of Western Pennsylvania by members of the Allegheny County Medical Society. Ten such meetings were held during the year.

The Philadelphia County Medical Society sponsored a Medical-Dental Night, when "Current Trends in Oral Focal Infection" was the topic discussed. It was participated in both by physicians and dentists. Last year

we reported that "The Philadelphia County Medical Society in 1924 opened its doors to the dental profession by allowing them to become associate members of the Society and has held combined medical and dental programs each year since that time and in many ways has evidenced its coöperation with the profession." This policy seems so liberal and mutual that it is repeated here, and is again recommended to the component societies as a basis for their relations.

In April a Joint Conference Committee was formed by the Allegheny County Society. Its function is to coördinate the activities of recognized groups interested in health legislation. The Odontological Society of Western Pennsylvania was included in the Conference.

Concerning the Department of Health, Dr. Theodore B. Appel has assured us of every desire to coöperate with our Society, and items published in the PENNSYLVANIA MEDICAL JOURNAL from time to time and the minutes of our Board of Trustees meetings amply support this statement. Attention is specifically drawn to an article by Secretary Appel in the August, 1934, PENNSYLVANIA MEDICAL JOURNAL, on "Limitations of Official Medicine," in which Dr. Appel comments on "the grave tendency of certain sections of society to demand more and more from an increasingly paternalistic form of government. Here official and organized medicine should take a stand together. A mutual understanding of the limitation of responsibility of the several agencies involved in the public health must eventually bring about a solution. It will need cool heads and careful thought finally to settle the question."

Thus far we have been unable to contact the Pennsylvania Tuberculosis Society. It should be noted, however, that President Donald Guthrie represented our Society in an address before this organization at its last annual session.

Mrs. Alice F. Liveright, Secretary of the Department of Welfare of Pennsylvania, makes the following statement:

"There has been a feeling on the part of many of the State-aided hospitals that dispensary service should be included in determining the amount of the State appropriation. With this end in view, a study has been made of the scope and volume of service rendered in the State-aided hospitals and a number of interesting facts have been brought to light. The most significant is that although Philadelphia and Allegheny Counties are well supplied with hospitals having complete outpatient departments, this is not true of the State as a whole, and large areas, particularly through the central and northern counties, are without clinic facilities.

"The condition in many of the hospitals in the eastern part of the State seems to be more encouraging than it was a year ago. Many of the private rooms and wards which have been closed are now open and there is an increase in the amount of part pay money collected. Unfortunately, this does not hold for the State as a whole, as there has been no pick-up in the Pittsburgh district. I assure you I appreciate very much your continued and helpful coöperation."

The American Red Cross, through William De Kleine, M.D., Medical Assistant to the Vice-Chairman, in response to a request for a statement relating to coöperation between physicians and their organization replies in part as follows:

"The American Red Cross is a semigovernmental agency. It operates under a Congressional Charter and is therefore subject to supervision by the Federal Government. The President of the United States is, by virtue of his office, President of the Red Cross. Funds

for maintaining its activities are, however, not received from the government, but entirely through voluntary subscriptions.

"The Red Cross functions in the field through the medium of local chapters, of which there are 109 in the State of Pennsylvania. These chapters are an integral part of the national organization and are governed in their work by principles and policies determined at Washington.

"Red Cross was originally founded for the purpose of bringing relief to the sick and injured in time of war and disasters. In the past 20 years, however, the scope of its work has been considerably extended, but entirely in conformity with the provision of the charter. It now includes, in addition to disaster relief, public health nursing; instruction in first aid and life saving; instruction in nutrition and home hygiene; enrollment of nurses for disaster and war duty; the organization of the Junior Red Cross in the schools; service to the disabled veterans and their families and other activities.

"The following are the principal Red Cross activities for which medical and public health counsel is necessary, and in which opportunity is offered for effective coöperation: 1. Disaster Relief Work. 2. Public Health Nursing Service. 3. First Aid and Life Saving. 4. Other Services.

"There are two major medical problems in nearly every large disaster, namely, medical care of the sick and injured and health supervision of the disaster area. From an administrative point of view, these are distinctly separate, and must be so regarded in organizing the relief work. The first is the function of the local medical profession and hospitals; the second is the duty of the constituted health authorities.

"The Red Cross does not assume the entire responsibility for the care of the sick and injured in disasters. Neither does it sponsor nor direct the health activities in the disaster area. These are clearly the function and duty of the local medical profession and the health department. If, however, communities do not have adequate health service, or if the medical, nursing, and hospital facilities are inadequate, the Red Cross offers to help them. It aims to provide the supplies, facilities, and personnel which they lack and need for the emergency.

"Public health nursing conducted by Red Cross chapters includes the usual activities sponsored by such services. Red Cross efforts in this field are limited largely to smaller communities and rural districts where the service is not provided by other agencies, and where the possibilities are excellent for continuing it on a more or less permanent basis—either as a chapter activity, or as a part of the local health department. Fifty such chapters and branches are in the State of Pennsylvania.

"Because of the intimate relations between the medical profession and public health nursing work, it is recommended by the national organizations that chapters request the Medical Society, or a group of local physicians interested in public health, to select one from their number to act as their representative on the chapter executive committee, or the "Committee on Nursing Activities." Many chapters have a medical advisory committee to whom all matters of medical and public health policy can be referred. Physicians can help the committee in the selection of the nurse, in determining the character and quality of the service, in formulating policies, and to help maintain cordial relations between the nursing service and the medical profession.

"Physicians can give valuable assistance to the Red Cross by becoming definitely affiliated with the local

chapter, and by accepting membership on one or more of the committees sponsoring health and safety activities. Chapters need medical and public health counsel."

Respectfully submitted,

*JOSEPH J. MEYER, *Chairman*,
S. MEIGS BEYER,
W. BURRILL ODENATT,
CURTIS C. MECHLING,
FRANK G. HARTMAN.

REPORTS OF SPECIAL COMMITTEES

COMMITTEE ON MENTAL HYGIENE

(Subsidiary to the Committee on Public Health Legislation)

To the President and House of Delegates:

The report of the Committee on Mental Hygiene consists very briefly of (1) the program, which was agreed upon by the Committee at the beginning of the year; (2) the responses to this program; and (3) an expression of appreciation to those who coöperated with the Committee.

1. *The Program.* The Committee this year will concentrate its activities on the individual physician through the county medical societies, the annual meeting to be held in Wilkes-Barre, and editorials in the JOURNAL of the State Medical Society.

For the benefit of the individual physician, the Committee on Mental Hygiene will request the county societies to hold one meeting during the year on Mental Health; the meeting to be held at the regular meeting place or at the closest mental hospital or State school. The State Bureau of Mental Health, through the superintendents of these hospitals and schools, will gladly coöperate. Our Committee will assist, if requested, in providing speakers. Each of the county societies will also be asked to create a Committee on Mental Hygiene, subsidiary to the Public Relations Committee, in accordance with the action of the 1933 House of Delegates. The Editor of the PENNSYLVANIA MEDICAL JOURNAL and the Committee on Publication of the JOURNAL have for years granted the Committee on Mental Hygiene editorial space. This space this year will be used to the best possible advantage.

The Committee will request the Scientific Program Committee to grant one paper on Mental Health before the General Session. It will ask the Mental Hygiene Committee of the Pennsylvania Public Charities Association and the Public Relations Committees of the County and State Societies to deal with the public in the matter of lay education.

2. *The Responses.* The responses to this program have been very gratifying. Many of the societies have held Mental Hygiene meetings at their regular place of meeting or the closest mental hospital or State school during the year. Speakers have been provided when requested by the Societies. The following County Societies have reported that they have created a Committee on Mental Hygiene, in accordance with the request of our House of Delegates at its last session: Allegheny, Philadelphia, Lackawanna, Dauphin, York, and Montour. It would appear to the Committee that the creation of these subcommittees in the County Societies would become more effective if the Societies were requested to report annually the activities of such Committees. Editorials appeared in the JOURNAL during the past year. The Scientific Program Committee has al-

lotted time to one paper dealing with Mental Hygiene subjects at the Wilkes-Barre meeting. The Committee on Scientific Exhibit, likewise, has granted space for a Mental Hygiene exhibit, including also a motion picture.

Programs of the following Councilor District Meetings included representation from the State Society's Mental Hygiene Committee: Second, Third, Fourth, Fifth, Sixth, and Tenth Districts.

3. *Expression of Appreciation.* The Committee desires to express its appreciation to the President, the Secretary, the Trustees and Councilors, the Editor of the JOURNAL, the County Medical Societies, and their various Bulletins, the Bureau of Mental Health of the Department of Welfare, the Superintendents of State Hospitals and State Schools, the Mental Hygiene Committee of the Public Charities Association, and those persons who have made individual contributions to the Committee's program during the year.

Respectfully submitted,

J. ALLEN JACKSON, *Chairman*,
CHARLES H. HENNINGER,
JAMES W. MCCONNELL.

COMMISSION ON CANCER

(Subsidiary to the Committee on Public Relations)

To the President and House of Delegates:

The regular formal annual organization meeting of the Cancer Commission was held Dec. 2, 1933, at Harrisburg, with all the members in attendance. The work for the year 1934 was planned out in detail.

The Commission continued its regularly established work with County Medical Societies, endeavoring to have each county society hold at least one Cancer meeting. Practically all the counties had such a meeting. The Lehigh Valley Medical Society, representing ten counties in Pennsylvania and two in New Jersey, held a Cancer meeting during July. The meeting was addressed by Dr. Hugh Cabot, of the Mayo Clinic, Rochester, Minnesota. The Postgraduate Committee undertook to stimulate postgraduate study in the hospitals in the Lehigh Valley District. A report on the work accomplished during the year was very favorable.

The Commission repeated its request that nurses' training schools in the State provide cancer lectures. This has become a regular part of the curriculum in practically all the training schools in the State. "A Handbook for Nurses," a booklet published by the American Society for the Control of Cancer, was again presented free to every nurse graduating this year in Pennsylvania.

The fifty dollar prize offered annually by our State Society for the best essay on "The Nurse's Responsibility in the Control of Cancer" was won by Miss Bertha F. Lewis, of Harrisburg. This prize was offered through the Commission, and the contest was open to any registered nurse in Pennsylvania.

Two Regional Cancer Study days were planned for this year instead of one as in former years. The first was held in Altoona, June 28, 1934, under the direction of Dr. W. H. Howell. Three hundred fifty physicians registered for the morning and afternoon study courses and 1500 persons attended the evening public meeting. This was a very fine meeting and was largely attended.

The Second Regional Cancer Meeting was held at Sayre, Aug. 13, 1934, under the direction of Dr. G. W. Hawk. A splendid program was arranged, and this meeting too was very successful. Two hundred forty

* Dr. Meyer, Chairman of Committee, deceased May 8, 1934.

physicians registered for the morning and afternoon study courses and 650 persons attended the evening public meeting.

The annual meeting of the Pennsylvania Association of Tumor Clinics, of which this Commission is the parent body, will be held in the fall at the Lankenau Hospital, Philadelphia, under the direction of Dr. S. P. Reimann. There are now 39 hospitals in the State reported as having definitely organized and functioning Tumor Clinics. The total list is as follows:

Allentown General Hospital, Allentown; St. Luke's Hospital, Bethlehem; Bloomsburg Hospital, Bloomsburg; St. Joseph's Hospital, Carbondale; Geisinger Hospital, Danville; Clearfield Hospital, Clearfield; Easton Hospital, Easton; Annie M. Warner Memorial Hospital, Gettysburg; Harrisburg Hospital, Harrisburg; Lancaster General Hospital, St. Joseph's Hospital, Lancaster; State Hospital, Nanticoke; Montgomery Hospital, Norristown; Jewish Hospital, Frankford Hospital, Jeanes Hospital, Hahnemann Hospital, Lankenau Hospital, Oncologic Hospital, Chestnut Hill, Northern Liberties, Philadelphia General, Stetson Hospital, Jefferson Medical College, Presbyterian Hospital, Philadelphia; St. Joseph's Hospital, Homeopathic Hospital, St. Francis Hospital, Presbyterian Hospital, Western Pennsylvania Hospital, Passavant Hospital, St. Margaret Memorial Hospital, Pittsburgh; Reading Hospital, Reading; Moses Taylor Hospital, Scranton, Mary Packer Hospital, Sunbury; Mercy Hospital, Wilkes-Barre General Hospital, Wilkes-Barre; York Hospital, York.

Dr. T. B. Appel, Secretary of Health of Pennsylvania, at the request of this Commission, again arranged for J. C. Funk, Chief of the Division of Public Health Education, to give Cancer prevention lectures at the general colleges throughout the State. Fifteen colleges were visited, with an attendance of about 5000 students. These lectures were very well received and proved very successful. All the presidents of the colleges were unanimous in their approval and appreciation.

A most important statistical study, under the title "Is Cancer Education Effective," was completed and published in the July PENNSYLVANIA MEDICAL JOURNAL. This report tabulates and definitely relates facts brought out in reviews made by Chairman Wainwright in 1911, 1923, and 1933.

The Commission recommends that the work be continued, and that the usual appropriation of \$1250.00, or so much of this sum as is needed, be made.

Respectfully submitted,

*JONATHAN M. WAINWRIGHT, *Chairman*,
JOHN L. ATLEE,
GEORGE W. GRIER,
ALBERT F. HARDT,
GEORGE W. HAWK,
STANLEY P. REIMANN,
SAMUEL J. WATERWORTH.

COMMITTEE ON ARCHIVES

To the President and House of Delegates:

The Committee on Archives report with pleasure the preparation during the past year of three valuable contributions toward the preparation of a complete history of The Medical Society of the State of Pennsylvania: "A History of Medicine in the Territory of Huntingdon County," by Dr. Howard C. Frontz; "A History of the Chester County Medical Society," by Dr. William T.

Sharpless; and "A History of Medicine in Lancaster County," by Dr. Elmer T. Prizer.

The Committee are also pleased to report that the improvements in our Society's headquarters building in Harrisburg, which will be completed soon, provide ample accommodations, on metal library stacks in a fireproof vault in the basement, for the assortment and placement in proper order of past as well as future issues of the JOURNAL.

Respectfully submitted,

WALTER F. DONALDSON, *Chairman*,
GEORGE HAY,
J. NEWTON HUNSBERGER.

COMMITTEE ON TELEPHONE CLASSIFICATIONS

To the President and House of Delegates:

On behalf of the Committee on Telephone Directory Classifications, we beg to report that continued harmonious relations with the Bell Telephone Company have been established and are still in effect.

A large number of illegal and incorrect listings have been adjusted, thus saving the citizens of this Commonwealth from being exploited by cultists and irregular practitioners of the healing art.

Respectfully submitted,

ARTHUR C. MORGAN, *Chairman*,
HARRY W. ALBERTSON,
ARTHUR B. FLEMING.

COMMITTEE ON DEFENSE OF MEDICAL RESEARCH

(Subsidiary to the Committee on Public Health Legislation)

To the President and House of Delegates:

The Committee is happy to state that it has had no need for any activities in the past year.

Respectfully submitted,

EDWARD B. KRUMBHAR, *Chairman*,
SAMUEL R. HAYTHORN.

WORKMEN'S COMPENSATION COMMITTEE

To the Board of Trustees:

The Committee appointed by President Guthrie in May of this year has held two meetings at Harrisburg on June 22 and August 8, respectively. At the first or organization meeting it was decided to limit the work of the Committee to an attempt to correct certain specific injustices in the present Workmen's Compensation Laws of Pennsylvania, particularly in their application to the medical aspects. The specific things requiring correction are as follows:

1. The 30-day period in which the employer is compelled to furnish hospital and medical care. This period is entirely too short and is not comparable to the time allowed by all other industrial states.

2. The \$100 limit for the cost of such care.

3. The failure to provide for impartial medical testimony before compensation referees, and the lack of any provision for an injured worker to be examined by a physician of his own choosing.

4. The failure of the present Act to make the physician a "party at interest" in compensation litigation as

* Dr. Wainwright, deceased Aug. 3, 1934, served as Chairman of the Cancer Commission since its creation in 1909.

regards the collection of professional fees. The law permits a lawyer to appeal to the compensation board for collection of his fee, but denies this right to the doctor.

5. The present method of making awards for partial disability, which are arbitrary and which work injustice to the worker and employer alike. This is particularly true of such conditions as the traumatic neuroses. The law also makes no distinction between the various types of occupation. For example, a ditch digger who loses a finger receives as much consideration as a musician, and likewise a musician who loses a leg is awarded the same amount of compensation as a laborer when he can probably earn as much minus his leg as he could before.

To the end that these questions might be covered in the greatest possible detail, subcommittees were appointed and these committees have done a tremendous amount of work in the short time available. The representatives of organized labor, insurance carriers, self-insurers, and hospitals have been consulted with varying degrees of success. Without going into detail at this time it may be stated that from all these organizations your Committee received the greatest coöperation, with one outstanding exception, namely, the self-insurers, whose authorized representative referred in a letter to the medical profession as a group of "chiselers and gougers," who sought for their own selfish interests to further penalize an already overburdened group of industrialists.

Owing to the fact that several important conferences are scheduled for the month of September, among which are those with the National Council on Compensation Insurance and the United Mine Workers of the World, your Committee feels that its complete report should be deferred until the meeting of the State Society at Wilkes-Barre, at which time a much more extensive and comprehensive report will be presented.

Respectfully submitted,

CALVIN M. SMYTH, JR., *Chairman*,
EDWARD PARDOE, *Secretary*,
GEORGE H. CROSS,
CHARLES FALKOWSKY,
LEWIS K. FERGUSON,
GEORGE W. HAWK,
GEORGE L. LAVERTY,
WILLIAM H. MAYER,
FRANKLIN P. PHILLIPS,
LOYAL A. SHOUDY.

MEDICAL ADVISORY COMMITTEE TO THE STATE EMERGENCY RELIEF BOARD

To the President and House of Delegates:

A series of conferences between the Officers of this Society and Mr. Eric H. Biddle, Executive Director of the State Emergency Relief Board, was begun July 27, 1933. The purpose was to formulate some plan of Emergency Medical Relief to the Unemployed. As a result of these conferences the following motion was adopted at our 1933 Session:

"That this House of Delegates, in expressing confidence in the Board of Trustees in their handling to date of the problem of paying Pennsylvania physicians for authorized services to the indigent, authorize the President of this Society to appoint a committee of five further to advance plans for such payment through Federal funds, in harmony with plans promulgated by Director Harry L. Hopkins, as set forth in Federal Emergency Relief Administration Rules No. 7, issued the second week in September."

Following the appointment of this Committee, the functions assigned to it were outlined as follows:

A. This Committee shall meet with designated officials of the Pennsylvania Emergency Relief Board in an advisory capacity regarding plans, problems, questions, and issues involving authorized medical relief, to consider complaints, and to maintain a liaison between the State Relief Administration and the Medical Profession.

B. This Committee shall aid in the interpretation of these policies to county medical societies, physicians, and the public at large.

C. This Committee shall aid in the organization of county medical advisory committees to consult with the County Directors of Emergency Relief.

Several meetings were held promptly from which evolved the Rules and Regulations Governing Medical Care Provided in the Home to Recipients of Unemployment Relief. This plan was accepted, Nov. 16, 1933, by the State Emergency Relief Board. The recommendation by this Committee of Dr. Harold A. Miller as Medical Director was accepted. The first funds for emergency medical service then became available.

Dr. Miller and Mr. Biddle met with your Committee on the following morning. Dec. 1, 1933, was designated as the time to put the plan into operation. Forms were prepared. Printing was authorized. The various component county medical societies were advised on the organization of County Medical Advisory Committees. The State organizations representing pharmacists, dentists, and nurses were contacted for their coöperation. The personnel of your Committee proved, through Executive Director Eric H. Biddle, to be entirely acceptable to the State Emergency Relief Board as their Advisory Committee.

Members of this Committee and Dr. Harold A. Miller have addressed many medical groups. In this manner the attempt was made to coördinate the endeavors of the State Medical Society and the administration by the Relief Board. The relationship between your Committee and the State Emergency Relief Board has been pleasant and coöperative.

This report is written after eight months of operation with an average of 360,000 families on relief. Checks totaling \$624,484 have already been issued. Bills approximating \$200,000 for medical services are passing through the State Auditing Department at this writing. Medical orders issued, but for which the bills have not yet been received, indicate about \$400,000 more of service rendered to Aug. 1, 1934. The above figures, totaling \$1,225,000, do not include remuneration for dental or nursing service and for pharmaceuticals. The grand total to date, excluding overhead costs, exceeds \$1,500,000.

The State Emergency Relief Board has requested and received the counsel of your Committee at various times on sanitation and medical attention to transients in its various camps and shelters. Your Committee solicited and received the coöperation of the U. S. Employees' Compensation Commission in liberalization of the choice of physician by men injured on C.W.A. projects. The Work Division is now taking over the activities of the C.W.A. Employees injured on these projects will be protected by the State Workmen's Compensation Law. Your Committee devised a plan in accordance with the action taken by our Board of Trustees in October, 1933. By this plan, each County Medical Society is held responsible for the quality of service rendered by participating physicians and for the fairness of charges for the same in their respective com-

munities. The operation of this plan has been very gratifying to date.

Criticisms of the Unemployment Relief Program received from the profession are classified as follows:

Inadequate care is provided for the chronic invalid. Six prenatal visits are an impractical requirement. Mileage in rural communities is not provided. That laymen are dominating the administration of the plan. Insulin and other expensive supplies are not provided. The plan is another step in the direction of socialized medical service.

The administrative staff likewise has felt justified in offering several criticisms of the physicians participating in the plan. These may be classified as follows:

Unsatisfactory "paper work" as to diagnoses, dates of visits, and of charges. Excessive and unnecessary professional calls. Overcharging has been detected in a few instances. County Medical Advisory Committees usurping the duties of administrative staff.

Administrative groups subjected as they are from time to time to the widely publicized influence of the so-called radical "pressure groups" should be able to sympathize with the practicing physician who is also subject to pressure from emergency relief patients demanding unusual amounts or forms of medical service.

The inevitable conflict of personalities existing in some counties has resulted in the Advisory and Administrative groups uttering parallel criticisms regarding each other. Training and practice have not infrequently overdeveloped the individualistic point of view of the physician. Administrators, on the other hand, are selected from that group of sociologically minded or trained modernists whose point of view is collectivistic. In most instances time and tolerance have adjusted such divergences of opinion. The future holds promise of continued improvement.

Experience and statistical study since Dec. 1, 1933, have revealed the average professional charges prevailing in different counties. On May 16, 1934, your Committee announced these results as a guide. County Medical Advisory Committees and participating physicians have so admirably complied with the suggestions therein contained that many of the unpleasant problems of administration have since been obviated. The limitation of funds available renders adjustment of some criticisms impossible. Experience in costs of this emergency program should be a valuable guide to avoiding similar defects in any permanent plan for medical service which may be proposed.

This Committee has been fully cognizant of these activities tending into the course of social medicine. Its deliberations have been predicated on:

A. Collective bargaining between the State and the organized medical profession.

B. Preservation of the patient-family-physician relationship.

C. Payment for medical service on a fee basis.

The plan of Unemployment Relief with which we have been laboring was devised as an emergency measure. We are convinced that, due to continued unemployment, some permanent plan will evolve therefrom. The various plans of social insurance now being so widely discussed force the representatives of the various healing arts to face the issue. In our efforts to date the State has recognized the profession of medicine as a unified part of the social order.

Neither the medical profession nor the laity appear to be satisfied with the present medical economic system. We know not what lies ahead. Organized medicine may acknowledge its obligation to society by lending its ex-

perience to help solve this problem, or it may defy the sincere thought of misguided groups only to have social reformers and politicians dictate its future.

Our constructive thought and experience may help develop some evolutionary steps to clarify the haze; our destructive criticism and antagonism will but activate retaliation.

Our effort during this great emergency has demanded pioneering into untrodden fields. Your Committee is cognizant of many defects in the plan and in the operation thereof. Experience through emergency medical relief has afforded us an opportunity to realize the immensity of the problems of medical care of the poor.

The poor have been with us always, but our laws governing their care continue inadequate and antiquated. The changing economic and social conditions of today threaten to increase permanently the number of families who will be dependent on society at large. In so far as their medical care is concerned, society, as we should wish it to do, looks to us for a solution.

Therefore, we earnestly recommend to the House of Delegates, representative of the profession of medicine of this great Commonwealth, studious consideration worthy of this major problem.

Two of our members have been selected by their respective counties to serve on their County Medical Advisory Committees. This has given us the perspective of the problem from the county point of view. The work of these county committees has been exacting, laborious, and thankless.

We beg to acknowledge the efficient coöperation of the County Medical Advisory Committees. Their untiring and conscientious effort has assured success.

Your Committee is grateful to Executive Director Eric H. Biddle of the S.E.R.B. for courteous consideration; to Harold A. Miller, M.D., Medical Director of Emergency Medical Relief for consistent, unstinted endeavor and coöperation; and to State Society Officers, including Councilors, for their responsive help.

Respectfully submitted,

GEORGE L. LAVERTY, *Chairman*,
WILLIAM B. ODENATT,
HENRY T. PRICE,
CHARLES H. SMITH,
WALTER F. DONALDSON, *Secretary*.

COMMITTEE ON CONSERVATION OF VISION

To the President and House of Delegates:

The Committee on Conservation of Vision revived by Resolution before the House of Delegates at the meeting of The Medical Society of the State of Pennsylvania, in Philadelphia, in October, 1933, for the purposes indicated by its title reports of its activities during the past year in the following communication:

The incentive for this revival contained in the Resolution cites especially the lack of ophthalmic care given school children in Philadelphia and the other large cities throughout the State and carries the implication that similar, if not more aggravated conditions, exist throughout the entire State.

Reference was also made to the lack of so-called sight-saving classes in the public schools. While the ophthalmic needs of the population when it enters the zone of public school influence was particularly stressed, it was implied that the activities of the Committee should extend back into the domain of infancy and forward into

the industrial epoch in order that visual conservation be adequately sustained.

The Committee has therefore concerned itself first with the outlining of a program which embraced the program of the prior committees in this field but differed from its predecessors only in the manner in which it was presented. The information on the prevention of blindness and the conservation of vision is conventional and constant and readily available. Even in the face of all this it is essential that propaganda be aggressive, continuous, and unrelenting to be effective.

It was contended that the weakness of our movement lay in the manner of the presentation of our valuable and instructive information. Our prospects include both physicians and the public. In order to educate the one group we must have the other likewise prepared.

The major work of the year has been concerned in perfecting the organization of those physicians practicing ophthalmology that they may be able to coordinate with this elaborate publicity scheme. To this end the secretaries of every county medical society in the State were contacted with the request that the society appoint a local committee on Conservation of Vision. As a result 29 such committees were created. In 16 counties the sparsity of men engaged in eye work compelled us to be content with listing such practitioners and considering them as attached to our parent committee. This list of eye men covering 45 counties we were glad to present to the Mothers' Assistance Fund as men ably qualified to discharge the duties as ophthalmic examiners in connection with the functioning of the Blind Pension Fund.

Hand in hand with the development of this organization your Committee has diligently sought out information regarding local conditions in each of these districts and communities as well as its State aspect and as far as possible has placed this information in the hands of the local committee. It has placed the names of the men accredited as ophthalmologists in their own communities in the hands of the Children's Aid Society, the Red Cross, the Committee on Child Health Study and other organizations with the request that they be considered in all work required in this specialty.

The Publicity Department of the National Society for the Prevention of Blindness has placed slides and films at our disposal and provided every local committee (when indicated by us) with pamphlets and releases on all ophthalmic subjects. In addition, notices have been placed in all local newspapers citing the creation of these committees, the scope of their work and the names of the men composing them. In this way we have endeavored to contact and recontact these highly trained specialists with the general public on a personal basis.

By reason of the Chairman's close contact with the Philadelphia Committee the development of the plan has proceeded more rapidly in that county than elsewhere.

The local committee has undertaken practically all lay instruction in Conservation of Vision which has been presented by nearly every lay community organization in this city and county. In addition subcommittees have undertaken a profusion of projects which have been headed by men skilled in ophthalmology. Through the interest of the Better Business Bureau, the obnoxious advertising sponsored by irregular practitioners has been kept down to a minimum. A subcommittee appointed by the Philadelphia Committee has been engaged in connection with the Health Department and with workers provided by the Federal Government in making a survey of the ophthalmia neonatorum situa-

tion. This will be reported in full at the special meeting of the Society in October by Dr. Louis Lehrfeld, Chairman of the State Committee. This Committee has also interested the Graduate School of the University of Pennsylvania in the matter of intensive study for the prevention of interstitial keratitis through adequate prenatal care. Dr. B. C. Hirst, professor of obstetrics in the Graduate School of the University of Pennsylvania, gave this assignment to his class of graduate students at our request and has already made a report of this before the hospital society. Our local committee anticipates making a full report of this study.

It would appear from both studies (that on ophthalmia neonatorum and that on interstitial keratitis) that adequate prenatal care is obviously the best prevention of these ocular conditions and that our campaign for conservation of vision in young children must be projected back into the hands of the general practitioner to get the most effective results.

In Philadelphia County the influence of our State Committee may be felt in connection with the ophthalmic activities. The intensive study of eye conditions on the part of the Philadelphia County Medical Society has inspired the creation of the Eye Section of the Society which is the most popular branch of the Society work.

A special committee of the County Society for the ophthalmic examination of school children has likewise prospered and extended, unquestionably due to the influence of our State Committee.

In the matter of the relation of the ophthalmologists to the Blind Pension Act the State Society and its Committee on Conservation of Vision have been duly recognized by the Department of Welfare. Mention has been made of our having provided the Secretary of Welfare with a list of physicians practicing ophthalmology throughout the State. We have been utilized in so far as possible on every occasion by the Mothers' Assistance Fund, which conducts the machinery of this Act.

In connection with the Blind Pensions Fund it has been our privilege as representative of the State Society, together with the President-elect of the Society and representatives of the Board of Trustees, to sit in conference with the State Department of Welfare and others concerned in this Pension Fund disbursement and discuss the medical aspects of this new relief measure.

It is our ardent desire to utilize every one of the local county committees in the same way as has been so effectually done in Philadelphia County in this field of Conservation of Vision. This requires not only the information and the organization, but requires the development of interest on the part of those who are likely to participate in such a project. This is necessarily a time-consuming enterprise and calls for a continuation of the committee in order to bring it to a successful conclusion.

Respectfully submitted,

SAMUEL HORTON BROWN, JR., *Chairman*,
LLOYD C. PIERCE,
HUNTER H. TURNER.

COMMITTEE ON PEDIATRIC EDUCATION

To the President and House of Delegates:

The Committee on Pediatric Education desires to report progress. We have been working slowly, but will have a well planned program to present this fall. We are planning several short postgraduate courses in pediatrics for the general practitioner to be given in Phila-

delphia and Pittsburgh. In addition, we expect to offer to the various county medical societies clinical and didactic hours in their respective counties. This latter work will be handled by teams arranged by your Committee. This course also will be planned for the teams.

Respectfully submitted,

RALPH M. TYSON, *Chairman*,
 EMILY P. BACON,
 EDWARD L. BAUER,
 HOWARD C. CARPENTER,
 JAMES K. EVERHART,
 CHARLES A. FIFE,
 JOHN M. HIGGINS,
 ROBERT A. KNOX,
 FRANCIS T. O'DONNELL,
 HENRY T. PRICE,
 ROBERT K. REWALT,
 JOSEPH STOKES, JR.

COMMITTEE ON APPENDICITIS MORTALITY

To the President and House of Delegates:

The first meeting of the Committee on Appendicitis Mortality was held in the Penn-Harris Hotel, Harrisburg, Jan. 24, 1934. The entire Committee was present, also Dr. Donald Guthrie, President, and Dr. Walter F. Donaldson, Secretary of the State Medical Society.

Following a general discussion it was decided to limit the activities of the Committee for the ensuing year to a campaign of prophylactic surgery—attempting to instruct the laity through the family physician. It was decided to work toward the accomplishment of the following:

1. That the Board of Trustees authorize the expenditure of \$100.00 or less for a page of warning stickers to be included in an early issue of the PENNSYLVANIA MEDICAL JOURNAL.

2. That the Trustee from each Councilor District be asked for time on his annual meeting program for presentation of the subject of Appendicitis Mortality in Pennsylvania.

3. That each member of the Appendicitis Committee prepare a short treatise on some phase of appendicitis to be published in the County Medical Society Bulletins.

4. That every County Society in the State have a scientific program on appendicitis and its sequelæ some time during 1934.

5. That health talks to high school students and civic clubs be given and that appropriate radio and newspaper publicity be carried out.

6. That the ultimate aim of the Committee be to carry out Dr. Guthrie's idea of laying the foundation for the study of appendicitis with the thought of creating a permanent Appendicitis Commission.

It is gratifying to the Chairman of the Committee to report the following work completed:

1. 400,000 warning stickers were sent to 8000 physicians.

2. Nine of the eleven Councilor Districts have had the subject of "Appendicitis Mortality in Pennsylvania" presented on their yearly programs by members of the Committee.

3. Three treatises on appendicitis have been prepared for publication by members of the Committee.

4. Only a few County Medical Societies have had scientific programs on appendicitis to date. This work will be more fully carried out when the fall meetings begin.

5. Three civic clubs have had appendicitis talks pre-

sented to them and five radio talks have been given. Health talks have been given to 18,000 high school students in Philadelphia County. The other counties will carry on this work as soon as school opens again.

6. It is our hope that the results of the work being done will demonstrate the advisability of the approval of Dr. Guthrie's plan, the appointment of a permanent Appendicitis Commission.

The Committee has been fortunate in having the enthusiastic support of President Guthrie and Secretary Donaldson. Dr. Guthrie discussed the appendicitis situation most impressively at the fourth and fifth Councilor District Meetings. His article on "Diagnosis before Relief," in which he warns the profession against the use of morphine in the presence of abdominal pain before an accurate diagnosis has been made, is very timely. Dr. Donaldson's active participation, especially his continued efforts in keeping the county medical societies informed and interested, in carrying out the Committee's proposed plan has helped tremendously.

Following are reports on the work of the different members of the Committee:

Dr. Paul Correll, Easton: Dr. Correll's work in the Third Councilor District has been most gratifying. Due to a trip abroad his complete report has been delayed. On May 18, however, the Five County Medical Society Meeting (Bucks, Carbon, Lehigh, Monroe, and Northampton Counties) held in Easton, had a record attendance, and the outstanding success of the program was largely due to Dr. Correll's excellent choice of speakers. Dr. John O. Bower, Temple University Medical School, read a paper on "The Status of Appendicitis Mortality in the State of Pennsylvania." Dr. Samuel A. Lowenberg of the Jefferson Medical College, Philadelphia, presented the Medical Aspect, and Dr. C. G. Heyd of the Postgraduate School of New York, the Surgical Aspect. Drs. W. L. Estes, Sr. and Jr., of Bethlehem, and Dr. W. A. Hausman, Jr., of Allentown, contributed to the discussion.

Dr. Maxwell Lick, Erie: Dr. Lick is conducting a most effective educational campaign. He has given a radio talk concerning diagnosis and management of appendicitis.

At the Eighth Councilor District meeting held at Cambridge Springs, August 15, Dr. Lick read a paper entitled "Reducing the Mortality from Appendicitis."

Dr. Joseph P. Replogle, Johnstown: Dr. Replogle is doing splendid work in Johnstown endeavoring to make the profession "appendicitis mortality conscious." He has requested the hospitals through the chief residents to supervise the case histories relative to pertinent facts which will be of value in compiling statistics. He read a paper before the Cambria County Medical Society, and discussed the Chairman's paper at Eagles Mere.

Dr. John W. Shirer, Pittsburgh: Dr. Shirer has had opportunity to study the records at a number of the Pittsburgh hospitals. The enthusiastic support given him by the physicians and the public is encouraging to the Committee. He has given one radio talk on the subject "Stomach Ache," and presented the following papers: "Problems in Appendicitis Mortality," at the Tenth and Eleventh Councilor District Meetings in Greensburg and Uniontown respectively; "Appendicitis Mortality" at meetings of Somerset and Greene County Societies. He also presented a paper on "Appendicitis Mortality" on three occasions to the following organizations: The Somerset Dental Society and the Woman's Auxiliary to Somerset County Medical Society; also a paper on "Preventable Deaths from Appendicitis" before the Woman's Auxiliary to Allegheny County Medical Society.

Dr. John O. Bower, Philadelphia: First Councilor District—The fifth yearly survey on acute appendicitis has been completed; 3873 clinical records in 28 hospitals have been abstracted. Health talks on appendicitis were given before 18,000 high school students during the school year.

We were delighted to note that the *Journal of the Wisconsin State Medical Society* adopted the insert method of distributing abdominal warning labels to its members.

Respectfully submitted,

JOHN O. BOWER, *Chairman*,
PAUL CORRELL,
MAXWELL LICK,
JOSEPH P. REPLOGLE,
JOHN W. SHIRER.

COMMITTEE TO STUDY AND REPORT ON FORMS OF MEDICAL PRACTICE IN STATE-OWNED SCHOOLS AND COLLEGES

To the President and House of Delegates:

Our Committee chosen from the Board of Trustees to study and report on forms of medical practice in State-owned schools and colleges completed its work in April, and as instructed by the Board submits the following report:

This report is confined entirely to State-owned institutions and does not include any State-aided institutions, such as the University of Pennsylvania, the University of Pittsburgh, or Temple University, nor does it include any of the industrial schools either owned or aided by the State, but has been confined entirely to the State teachers' colleges and Pennsylvania State College, covering the latter and twelve State teachers' colleges. We were unable to get any report from California or Cheyney State Teachers' Colleges. It was found that five of the State teachers' colleges do not have a regular or appointed school physician. Four have part-time college physicians. Three have full-time college physicians, and Pennsylvania State College employs two full-time physicians.

Of the five who do not employ a school physician all employ nurses in charge of the school infirmary, and in four of the five the students have free choice of physician. In one of the five, two local physicians are designated, who are paid on a fee basis. No boarding student may consult a physician except through the dean of men or dean of women. In these five institutions the teaching staff and other employees select their own doctors and pay for such service. Injuries to students participating in athletics in these five schools are treated on the same basis, but paid for out of the Student's Activity Fund. Formerly the latter was paid for by the State.

Four institutions employ regular college physicians on a part-time basis. In these institutions, the college physicians visit the infirmary daily for sick calls. All students who are ill report to him at that time, either boarding or day students, and it is his duty to attend any who may be ill in the infirmary. He is on call at all times and treats all injuries to athletes. The student has the right, in these four institutions, to employ any physician he desires, but must pay the charges. In none of these four institutions does the college physician treat the faculty or other college employee, except on a personal fee basis. The salary of these part-time physicians varies from \$810 per year to \$1200 per year.

The remaining four institutions in this study employ

full-time physicians—three State teachers' colleges and Pennsylvania State College, in which two full-time physicians are employed.

In one of these institutions the physician gives full time to his work in the college, but he does not practice medicine in any way except to examine all students upon entrance and again at the beginning of the second semester, and to render first-aid to students. After such examinations, he gives advice to the students regarding indicated corrective measures or improvement of general health conditions. When a student requires other than first-aid it is necessary for him to select one of the local physicians and pay him personally for professional services. The school physician does not treat the faculty or college employees, except to render first-aid. He is a member of the faculty teaching certain health subjects.

Another full-time college physician in one of four institutions examines all students and all the help around the institution twice each school year. He attends to all students who are ill, but the students have the right to choose any physician they may desire. The student must pay for such outside professional service and such physician is required to make a report immediately to the college physician in order that satisfactory records may be kept. The college physician is not obliged nor is he supposed to examine or attend faculty members, but he is supposed to look after all the other employees of the school and to determine if they are in good physical condition and able to attend to their regular duties.

Another of the four full-time physicians is employed as a full-time instructor in Health Education and Hygiene. He also supervises sanitation at the college, looks after the health of students, faculty members, and employees of the college, in the office quarters provided for him. This applies to day students as well as boarding students, provided they visit the office, or are assigned to a room in the infirmary. This college also supplies medical supplies which are paid for out of the Student Activity Fund. This physician is on the State payroll as a full-time instructor. If a student does not wish to consult the college physician, he may at his own expense choose his own doctor in town. The college physician serves the faculty and employees of the college in his office during college hours, but if he has to take outside time to call at their homes, the same is at the expense of the employee or faculty member.

The last of the four in this group conducts a public health service for students, does not examine all students on entrance, only those who plan to participate in athletics. A dispensary is conducted in which any student may consult the physician in charge—free of charge—or if it is necessary for the student to enter the college infirmary, he may do so without cost for professional service if he has the college physician, but he may, if he so chooses, have any physician other than the college physician who may treat him in the infirmary, but he must pay the physician of his choice himself. All injuries received in athletics in this institution must be reported to the college physician. The college physician makes no visits to students or faculty outside the dispensary or infirmary. Each student in this institution is assessed \$4 per year for medical services. This is the only institution referred to in this report collecting a specific assessment for medical services rendered.

Having been unable to elicit or compound a specific or definite decision as to what represents contract practice within the meaning of "reasonable competition,"

your Committee of the Board of Trustees offers the above digest of the controversial situation and the following summary, with the comment that in our opinion ethical standards cannot be more definitely applied to the situations complained of than by comparing the existing facts to the following guiding *principles* approved by the Judicial Council of the American Medical Association:

"By the term 'contract practice,' as applied to medicine, is meant the carrying out of an agreement between a physician or group of physicians as principals or agents and a corporation, organization, or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or for a fixed rate per capita.

"Contract practice *per se* is not unethical. Under some conditions adequate service can be provided only by contract practice and is essential for the public welfare. No stigma should be attached to the members of the profession who are engaged in such ethical contract practice. However, certain features or conditions if present make a contract unethical, among which are:

- "1. When there is solicitation of patients, directly or indirectly.
- "2. When there is underbidding to secure the contract.
- "3. When the compensation is inadequate to secure good medical service.
- "4. When there is interference with reasonable competition in a community.
- "5. When free choice of a physician is prevented.
- "6. When the conditions of his employment make it impossible to render adequate service to his patients.
- "7. When his professional services are improperly controlled or exploited by any intermediary agency, personal or corporate, which intervenes between physician and patient.
- "8. When the contract because of any of its provisions or practical results is contrary to sound public policy."

To the students, the faculty and the employees of the colleges grouped as 1, 2, 3, and 4, it is apparent that the professional services of neighboring physicians are available and satisfactorily rendered without thought of contractual agreements. In schools Nos. 5, 6, 7, and 8, item 2 of the above is considered applicable as a rule for those who may criticize these schools' part-time physicians.

It is apparent that free choice of physicians is not actually denied students, *etc.*, of any of the 13 schools referred to. The most reprehensive offense we have found possible under the various school medical service plans we have reviewed is that of free medical service to paid employees and salaried faculty members and their families at the expense of the tax-paying people of Pennsylvania.

While we believe that the House of Delegates should support the protest of any component society against the extension of the activities of the agencies reviewed beyond the legitimate purposes for which they were created, your Committee feels, after considering the whole matter, that each must first be considered as a component society problem with the adaptation of the usual organizational machinery set-up for appeal.

In preparing this report we found that a majority of the physicians who are working on a part-time or full-time schedule in these institutions are active in their various county medical societies.

For the guidance of the component society representatives who may be called upon to consider the above or similar charges of infringement on the Code of Ethics

of the American Medical Association, we respectfully call attention to the following, which is the last amendment to the Principles of Medical Ethics as adopted by the House of Delegates at Cleveland in 1934:

"Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole."

Respectfully submitted,

DAVID W. THOMAS, *Chairman*,
ALEX. H. STEWART,
E. ROGER SAMUEL.

COMMITTEE ON MEDICAL ECONOMICS

To the President and House of Delegates:

The Committee on Medical Economics respectfully submits the following record of its activities since March 1, 1934:

Dr. Frederick M. Jacob resigned from the Committee on Medical Economics on February 6. Shortly thereafter President Guthrie appointed Dr. Max Weinberg of Allegheny County to succeed Dr. Jacob on the Committee, and elevated Dr. Philip J. Lukens to the chairmanship. Since the Committee's reorganization on May 29, its entire membership has been active in prosecuting the purposes for which the Committee was created, namely, "to investigate and devise."

Special meetings were held in Harrisburg on May 29 and August 7. Work was apportioned to each member of the Committee for study and report.

Concentrating on investigation, we first assembled facts regarding the interest manifested in the subject of Medical Economics among our component county medical societies. The results of this study were published in full in the July PENNSYLVANIA MEDICAL JOURNAL (page 858) and will be summarized later in this report.

We studied especially several experimental corrective plans publicly announced as contemplated or as being in operation.

Members of your Committee have therefore by appointment visited the cities of Washington, D. C., Cleveland, Detroit, and Chicago. The results of our findings regarding the Washington Group Hospitalization Plan were published in the July JOURNAL (page 852); the Cleveland Hospital Insurance Plan in the August JOURNAL (page 949); and the Detroit or Pino Service Plan of the Wayne County (Michigan) Medical Society, also in the August JOURNAL (page 950). Information and local opinion regarding these plans summarized in the body of this report was prepared in the Question and Answer form popularized by our State Society Committee on Public Relations in its widely known *Primer*, published a few weeks after the release, in 1932, of the Report of the Committee on the Costs of Medical Care.

Your Committee has also made studies on Contract Practice; the Out-Patient Department and Ancillary, or Subsidiary Services, Health Insurance, or State Medicine, as it exists in Germany, England and France (see summaries below); also a study of the Medical Service Plan of the Michigan State Medical Society. Comments and criticisms on the latter plan, which has previously been reviewed in our JOURNAL, will be found briefly summarized in the Officers' Department of this issue of the JOURNAL.

The other reviews mentioned in the above paragraph

we plan to publish in the October and subsequent issues of the JOURNAL.

Before proceeding to the summaries referred to above, we desire in well chosen and carefully quoted words to express the philosophy guiding our deliberations.

Admitting that in our considerations on Medical Economics we must take into consideration more and more the social point of view, your Committee has assumed the position that our profession, which has always been adaptive, may if it yield to the social pressures of the day, die from over-adaptation or absorption by sociology. We recognize that the greatest present threatening danger lies in the minds of persons who, claiming no special opinion on the intricacies of anatomy, physiology, or bacteriology, will admit no limitations to the value of their judgment on matters of economics or welfare.

The influence that the medical profession of Pennsylvania may wield in future economics adjustments depends, we believe, upon individual knowledge of the subject plus unity of action. If these develop as they should, then we may rest assured that progress will continue even as expressed in the following words regarding the threat of socialized medicine, a few months ago, by Alphonse M. Schwitalla, S.J., Dean of St. Louis University School of Medicine: "But I am not so sure that all this will take place with the precipitateness with which our social enthusiasts would have us accept their recommendations. Even if all this does indicate a turning point in medical educational history, the turning may take place with majestic leisure and with an unobtrusiveness that will insure a well considered acceptance instead of a stormy commitment to the newly emergent views."

A supplementary report may be presented at the opening session of the House of Delegates, but we earnestly invite careful consideration of the subjoined summaries of our studies up to Aug. 7, 1934.

SUMMARIES

SUMMARY ON ANALYSIS OF THE QUESTIONNAIRE DISTRIBUTED BY THE COMMITTEE ON MEDICAL ECONOMICS, MAY, 1934

The Committee, before launching upon any extensive excursion into the economic field, thought it best to make some effort to ascertain the extent to which the profession at large was harassed by distressing economic conditions, and to estimate the real need for taking any aggressive, remedial action. The questionnaire recently sent to the 60 component county medical societies of The Medical Society of the State of Pennsylvania was made brief in order that the very heart of the subject might be disclosed. Forty-six county societies responded, 77 per cent of the total. Our questions follow:

1. Is there a committee on medical economics in your county medical society?
2. What work has been done?
3. What are the future plans of your committee in the economics field?
4. What special problems obtain with (a) hospitals; (b) free dispensaries; (c) contract practice?

Replies indicate that only $\frac{1}{3}$ of the county medical societies in Pennsylvania have economics committees, although about one-third of the societies are active in economics. The work varies from indifferent interest in the rural counties to extreme activity in the urban or metropolitan areas. Except in the urban areas, little organized work has been done along economic lines.

Two-thirds of the counties, however, expect to do things, some a little, some much.

The economic problems of the county medical societies are enlightening. One-third have no difficulties with hospitals; with the remainder the chief trouble is the excessive number of charity patients, some of whom could be shown to be able to afford medical service if they were properly investigated. Three-fourths of all the counties report that they have no special problems with free dispensaries. Contract practice causes no trouble in 36 of the 46 counties replying.

Your Committee feels that there is not enough interest being shown by the county societies, and strongly urges that every county medical society appoint a Committee on Economics that will function actively to awaken the members to the rapidly growing importance of economics both at present and in the future. County committees should endeavor to arouse the membership to work together for common good and to strive harmoniously to solve and control local problems. The business aspect of medicine cannot be emphasized too strongly in counties in which one-half of all the members of the medical societies never attend a single meeting throughout the year.

Your Committee having reviewed the returns of the Questionnaire feels that in spite of the optimistic tone of the returns there is great need for more energetic activity in the study of economics by the component county medical societies.

SUMMARY ON GROUP HOSPITALIZATION

Group Hospitalization is a plan to provide hospital care for individuals or groups through periodic payments, which had its beginning for the benefit of one of the low income groups in Dallas, Texas. Your Committee, thoroughly cognizant of the fact that efforts are being made to inaugurate similar plans in the large centers of population in Pennsylvania, has studied the hospitalization plans which are being experimented with in the adjacent States of Ohio (Cleveland) and New Jersey (Essex County), and in the District of Columbia. *Factual Reports* on the Washington plan appeared in the July JOURNAL, and on the Cleveland plan in the August JOURNAL. Neither the Washington plan nor the Cleveland plan is as yet in operation. In Essex County, New Jersey, the plan has been in operation for one year. Reports from Essex County, New Jersey, are conflicting. The Committee has learned that the Essex County plan was "prepared and launched without consultation with the Essex County Medical Society," whose Committee on Economics and Public Relations recommended "A disapproval by our Society of the principles of insurance for hospitalization." On the other hand, in a paper presented by Mr. Frank Van Dyk, Executive Secretary, Hospital Council, Essex County, New Jersey, before the New England Hospital Association Conference in Boston, Feb. 16, 1934, the author stated, "If today there are any objections to the operation of the Hospital Service Plan in Essex County by the members of the local medical profession, they are indeed most inarticulate in voicing them."

Your Committee's comments and criticisms on the Cleveland Group Hospitalization Plan as well as on the Michigan State Medical Society Service Plan may be found on pages 1104 to 1105 of this issue of the JOURNAL.

Group Hospitalization is definitely an insurance scheme, as has been decided by the majority of the foremost insurance commissioners in the United States, in-

volved as it does, the sharing of loss, which is the foundation of insurance. Its defects, which are many, outnumber its merits. It serves a very limited class of preferred, employed individuals, disqualifying them when their jobs are lost, and excludes the very people who need care most.

Group Hospitalization serves primarily the financial interests of the hospitals (the Essex County, New Jersey, plan admits that "from every point of view the hospital's financial position is reasonably assured") shifting the burden of medical costs from philanthropy to assessment of low paid workers.

It is a money raising experiment for hospitals, the result of "tactics of desperation, in which hard-pressed hospitals seek any port in a storm." This can be readily appreciated when one considers that in New York City the cost of hospital construction has jumped from "Three or four thousand dollars per bed to twelve or sixteen thousand dollars a bed."

Your Committee inclines to the belief that despite statements to the contrary Group Hospitalization tends to be a step toward health insurance (state medicine) as indicated by its proponents who admit that the scope of the plan must be broadened to include either (1) "rebate of some of the premiums, or (2) extend the benefits to include the dependents of the subscribers, or *perhaps* (3) the disbursement of cash benefits."

There has been no popular demand for this form of hospital service, and the efforts of its advocates to popularize it have met with so much inertia or resistance on the part of the public that they frankly admit the following: that their greatest problem is the method and policy of promotion; that sales and organization experience are most valuable; that the public must be sold the idea, and that a demand must be created. Efforts to induce employed groups to subscribe to such hospital service might very easily lead to employer compulsion through intimidation, an evil we have had ample opportunity to observe in Pennsylvania.

There is urgent need for the medical profession of Pennsylvania to study this subject thoroughly, because the conceptions of recent forms of medical practice are hazy. Furthermore, it is not advisable to advocate schemes of providing service which are yet in the experimental stage. Efforts to place hospitals on a sound financial foundation are commendable, but despite all statements to the contrary, your Committee believes that Group Hospitalization is not separate from medical service and emphasizes the point that insurance plans for hospital service are heavily laden with possibilities for great danger to the values in the existing forms of medical practice.

In foreign countries, where systems of insurance medicine are in operation, dangerous and destructive changes have developed to lower the quality of medical service. It behooves the medical profession to regard carefully what results might follow any change made in the method of delivering medical and hospital services. The laws regulating the practice of medicine must be respected.

Much more could be said in opposition to Group Hospitalization but enough has been laid before you to indicate the dangers of such a form of hospital service. Your Committee is opposed to any such changes in the present system of hospital service, and urging that the medical profession should become informed and articulate, we recommend that The Medical Society of the State of Pennsylvania disapprove insurance plans for hospitalization.

SUMMARY ON PUBLIC HEALTH DEPARTMENT COÖPERATION IN IMMUNIZATION OF SCHOOL CHILDREN, PRESCHOOL EXAMINATIONS, EXAMINATION OF SCHOOL CHILDREN, EYE EXAMINATIONS OF SCHOOL CHILDREN

"A greater part of our knowledge in public health during the last fifty years has been the result of movements initiated in communities by physicians and carried forward by physicians until the time when they had achieved sufficient force and volume to demand the creation of departments or bureaus for their control. Many of the discoveries on which preventive work is based were contributed by physicians. Medical societies in many instances petitioned state legislatures for the creation of state boards of health. The medical profession has initiated in the past and continues to propose constructive legislation for the public health. The medical profession has always stood, and still stands, in favor of public health work of the right kind, properly conceived, correctly organized, and competently directed for the better health of the community."

In a letter, Dr. Henry F. Vaughan, Commissioner of Health of Detroit, states that the real purpose of their plan is to secure the active participation of all qualified physicians in all phases of preventive medicine. Under this plan patients are urged to go to their own doctors for preschool examinations and for immunization against diphtheria; and funds are paid from the health department to individual physicians for carrying on this preventive medical work. There has been produced a changed attitude of the public toward the health department and an elimination of much antagonism by the medical profession toward the work of the employees of the department of health.

Dr. Vaughan states, "We are gradually expanding the idea so as to include tuberculosis case finding, the control and treatment of venereal diseases, the annual health examinations for all food handlers, smallpox vaccination and periodic health examinations."

In general, as you no doubt have observed from preceding paragraphs of this report, the best plan for handling public health work such as immunizations, preschool examinations, and also periodic health examinations, is to have a coöperative plan in which the health department, with its publicity facilities and its nurses, does the promotion work, while the doctors do the medical work. As in the Detroit plan, patients who can pay are expected to pay, while the community pays at a reduced rate for those patients who cannot pay for their own immunizations, smallpox vaccinations and preschool examinations. In those localities, however, where it is not possible to get public appropriations the spirit of our profession urges physicians to serve gratis those who cannot pay. In such a situation, however, the community, through the health department, should furnish the physicians with free material, nursing assistance and any other expense that may be incurred. It devolves upon the members of the medical profession to be the leaders in all public health work of this character so that this phase of preventive medicine may be best administered and incidentally returned to the family doctor where it rightfully belongs.

SUMMARY OF MEDICAL CARE FOR THE INDIGENT

Adequate medical care for the indigent and the payment for such is one of the pressing problems of today. Care for individuals in almshouses, county homes, *etc.*, is under the supervision of Poor Boards or County Commissioners.

In the State of Pennsylvania, as pointed out by Dr.

Edgar S. Buyers, there are four different ways of furnishing medical attention: (1) County Commissioners acting as poor directors; (2) Poor Boards, consisting of three persons, elected by popular vote; (3) Poor Directors appointed by judges in certain districts, made up of townships or boroughs; (4) Certain counties, subdivided into townships or boroughs, each of which has a Poor Board.

The necessary funds for poor relief are secured by local taxation and distributed by County Commissioners in the form of an appropriation to such Poor Boards.

A survey of medical service to the pauper class, as embodied in a booklet just published by our State Society under the title "Summary of Pennsylvania Poor Relief Law Affecting Care of Indigent Sick," shows an absolute lack of uniformity in method. Buyers, in an excellent article in the February, 1934, issue of the PENNSYLVANIA MEDICAL JOURNAL, states that there is practically universal dissatisfaction among members of the medical profession regarding the manner in which the physicians are selected, engaged, and paid to furnish medical care.

A satisfactory solution could best be found by the expedient of the creation of a joint board, with equal representation from the County Commissioners or the Poor Board and representatives from local County Medical Societies. Only by local boards can a complete and satisfactory solution be worked out, since, while the condition is State- and even nation-wide, indigenous problems of local concern require consideration by properly appointed local authorities.

Emergency Medical Relief Service, in Pennsylvania is outside the province of the committee on Medical Economics, and is therefore not discussed in this report. The Committee, however, wishes to point out that these measures apply to the temporarily unemployed in contradistinction to the chronic pauper class. It is fitting that the two groups should be kept distinct when plans for medical care are being considered.

SUMMARY ON CONTRACT PRACTICE

The medical profession sometimes forgets, and the public does not know, that the entire system of medical ethics was formulated primarily for the health protection of the mass of the people from the weaker members of the profession.

Contract medical practice has existed in some form or other all over the world as long as the practice of medicine itself. From the standpoint of the individual private practitioner of medicine there can be no such thing as a good contract practice system—only some are less objectionable than others. If any contract is read carefully, or if the contractual agreement of any medical group or institution practicing the same is examined carefully, they will be found, it is believed, to have broken some or all the principles enunciated below.

Like almost any disease of the body politic, its onset has been insidious, tolerated at times, forced upon the medical profession at other times, until now it is being practiced flagrantly, boldly, and unafraid.

Some of the recognized medical leaders in any section may be more guilty than the little known lodge practice doctor, because such leaders—who have become such through the help of others in the profession—by their very presence give sanction to the worst ethical disease affecting the medical profession.

On account of the present social and financial unrest there is the added danger of some of the younger practitioners in desperation, seeing the sinister examples of such leaders, rushing into one of the many nefarious and insidious schemes now being fostered.

Below are extracts from the "Principles of Medical Ethics" of the A. M. A. Your Committee has read and digested over the past 18 months practically every comment written on contract practice, and their number is legion. If twice as much had been written or read it cannot add to nor subtract from the following:

Group Practice

"The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual doctors, each of whom, whether employer, employee, or partner, is subject to the principles of ethics herein elaborated; the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession."

Disposal of Service to Profit Seekers

"It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary, or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy.

"By the term 'Contract Practice' as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization, or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.

"Contract practice *per se* is not unethical. However, certain features or conditions if present make a contract unethical, among which are:

"1. When there is a solicitation of patients, directly or indirectly.

"2. When there is underbidding to secure the contract.

"3. When the compensation is inadequate to assure good medical service.

"4. When there is interference with reasonable competition in a community.

"5. When free choice of physicians is prevented.

"6. When the conditions of employment make it impossible to render adequate service to patients.

"7. When the contract because of any of its provisions or practical results is contrary to sound public policy.

"Each contract should be considered on its merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary, or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole."

To curb abuses of contract medical practice no one definition or one set of rules will cover every case now existing, nor those as yet unborn.

We are now at the crossroads; these things are going to increase or they are not. If we sit complacently by they are going to increase, as the so-called "free" dispensary and hospital services have so well shown, with their registration fees, visit fees, profits on the sale of spectacles, prescriptions, etc. These abuses of the professional spirit have all grown recently and rapidly.

It is the belief of this Committee that in every County Medical Society there should be an active committee, preferably elected, whose duty it shall be to examine

all contractual medical service agreements entered into or about to be entered into by its members, and to suppress unethical practices; such committee to have the power to obtain testimony, prefer charges, and recommend disciplinary action.

SUMMARY ON THE OUTPATIENT DEPARTMENT

In the early days occupants of the almshouses in Pennsylvania were attended by physicians of the community who gave their services gratis. From this humble origin dates the birth of dispensary medical services. Today no hospital of any size is without its free dispensary. The functions of the dispensary are, first, care of many postoperative cases which may be dressed at much less expense than by continued residence in the hospital; second, many dispensary patients are found who need hospitalization; third, dispensaries are valuable as teaching units; fourth, the outpatient clinic plays an important part in the social welfare program of today.

With the closely knit organization of the hospital staff and the increase in the number of available diagnostic laboratory procedures, the elaboration of dispensary services has been greatly stimulated in the past decade.

Indiscriminate admissions to hospital dispensaries are against the best interests of the public since, in the first place, more patients present themselves than can be adequately handled, and in the second place there is a diversion of funds from their proper use in the care of the poor to pay for medical service to those able to pay. Third, it creates false impressions in the mind of the public regarding the true value of adequate medical care. Fourth, it is unfair to the members of the dispensary staff, who give their service and time gratis. Admission to a dispensary should be supervised by trained credit clerks. Obviously what might be an adequate income for one with no social responsibilities enabling him to pay for the services of a private physician would be entirely inadequate for a married man with dependents.

It would seem that the St. Louis, Missouri, plan which requires all applicants for dispensary care to sign a sworn statement certifying their indigency, might, with certain modifications, be appropriate to the dispensary problem in Pennsylvania. A great deal of unjust criticism has been heaped upon the heads of social service workers for the indiscriminate admission of all-comers to dispensary attendance. This duty has generally been delegated to the social service department because hospitals have not seen, until recently, the advisability of having a business office in the outpatient department.

The principle of requiring each patient applying to procure a note of recommendation from his family doctor, religious adviser, or responsible friend, is not without flaw, since in the experience of many dispensaries physicians and preachers may be among the worst offenders in recommending individuals to dispensaries who are perfectly able to pay.

Until a fair and remunerative method can be developed for medical service now given gratis by hospital staff doctors to dispensary patients, the public and dispensary patients should be generally apprised of the fact that attending doctors are *not* paid for their services.

It is generally recognized that 85 per cent of the ills suffered by the public can be cared for by the family doctor. A foundation of efficient medical care was pointed out by Dean Lewis in his Presidential Address before the American Medical Association in June, 1933. He alleged that the public seeking specialists' care, in-

stead of first consulting the family doctor, frequently added unnecessarily to the costs of medical care. For perplexing cases requiring extensive laboratory and consultation service Dean Lewis believes that hospitals may increase their service to the community and the medical profession by establishing diagnostic clinics in which for a minimum fee a diagnostic survey could be made when required. No patient should be admitted to such clinics unless accompanied by his family doctor or with a note of instruction from him. When the detailed survey has been completed, the patient is to be returned to his family doctor with whom consultation is to be held from time to time concerning the progress of the case.

Certainly a plan making available the diagnostic resources of the modern hospital to the family doctor, without putting his ambulatory patients to bed, has advantages over sending the same patient to a ward bed.

The Pay Clinic and the Night Clinic, furnishing diagnostic and treatment service to patients of limited means, appears to be a form of competition by the hospitals with the private practitioner of medicine, and as such should not be encouraged.

SUMMARY ON ANCILLARY SERVICES

The ancillary or auxiliary services to medicine are made up principally of professionally trained workers, such as nurses, technicians, social workers, and sociologists. The various organizations throughout the State and nation are numberless. In some instances they may be presided over and governed by physicians, but in the majority of cases a lay board controls the administration.

It should be added that many meritorious groups, councils, and other types of organizations interest themselves in many varied activities directed to the public welfare, and concern in matters medical is but one of their fields of devotion. Some of these organizations lie apart from the medical profession. Others live and move and have their being within its very shadow, *i. e.*, Visiting Nurses' Associations, Health Leagues, Tuberculosis Associations, and similar organizations which number on their board of governors men and women who rank high, who have contributed generously of their time and funds for the public weal. In these organizations are found many of the leaders of the medical profession.

Medical Social Service.—The beginnings of medical social service may be traced back to the London Charity Organization Society. In 1895 an almoner, a trained social case worker, was placed in the Royal Free Hospital.

In 1905, Richard Cabot introduced a social worker into his medical clinic at the Massachusetts General Hospital. He requested teamwork between the doctor and the social worker so that the patient could be more adequately treated. Since that time social service departments in hospitals have developed all over the United States. In 1912 there were approximately 112 departments, and in 1930 there were 594.

The primary purpose of a hospital social service department is to further the medical care of the patient by methods of medical social case study and social treatment. The basis is the medical need of the patient, a need which may be aggravated by social conditions and which may require social as well as medical treatment.

Medical social case study and treatment presupposes the employment of a person who, through education and experience, is trained and capable of making a medical social examination.

Intelligent treatment requires a social as well as a medical appraisal.

The character of the medical practice today is such that with the elaboration of specialists it is only with great difficulty that many doctors can become intimately acquainted with their patients' personal lives, as did the physician of bygone days—that flower of the profession, the family doctor.

Your Committee believes that the social workers devoting themselves to the study and understanding of social conditions, and the physician having full charge of *all* aspects of the patient, must be closely allied. The physician must lead, and the medical social worker may aid in carrying out treatment and help in many ways. The physician must remain the chief.

The important thing for the profession today, however, is to recognize case study, and formulation and extension of knowledge in this field is needed rather than leaving them to haphazard abilities or to individual interests.

Your Committee commends to the House of Delegates development of policies based on recognition of: (a) The medical profession is faced with serious questions of social policy that need objective thinking; (b) the physician has common interests with the social worker, the sociologist, and economist.

Broad understanding and willingness to coöperate with like-minded and interested workers should be the medical profession's attitude toward medical social service.

SUMMARY OF COMPULSORY SICKNESS INSURANCE PLAN IN GERMANY, GREAT BRITAIN AND FRANCE

As can be seen from the heading, this report encompasses the entire life cycle of sickness insurance from its earliest inception, at least on a national scale, in Germany, since 1883; then goes over to that of England which came into being in 1911; then that of France, one of the most recent plans put into execution, in 1930; and finally a plan that is only being contemplated, namely, the Michigan State Medical Society Plan.

On studying the problem from this kind of perspective one covers the development of sickness insurance over the span of half a century. It gives one an opportunity to see the workings of each plan separately, or what is more important, that of the whole; hence, we believe, the value of this type of approach.

It is natural to expect that in such a series of developments each new plan would be an improvement over the others, that the newer plan would attempt to avoid the pitfalls and mistakes of the previous one; but, unfortunately, this is not altogether the true state of affairs. True, some of the newer plans have many excellent new features to overcome defects that cropped up in the earlier plans, yet some of them repeat the mistakes of the previous plans. A case in point is the Michigan Plan, one not as yet put into practice, and still they make the cardinal mistake of expecting to put over such a comprehensive plan, offering an almost complete health service on a voluntary basis. If there is one thing upon which all authorities on this subject agree, it is that the only successful way of putting over a National or State Health Insurance plan is to use the compulsive insurance principle. Simons and Sinai,¹ both well known authorities on the subject and at least sympathetic to the cause, make the following statement regarding compulsion: "No voluntary system has ever succeeded in collecting sufficient premiums from the

underpaid classes most in need of its services to give anything near adequate relief and sickness care."

It is not to be denied that there are countries that develop fairly large insurance schemes on a voluntary basis, notably among them, Denmark and Sweden; but in general it was found that the success of the scheme is greater the greater the operation of the compulsion principle in the plan.

It must be admitted that the early origin of health insurance is more or less due to a spontaneous demand on the part of people of poor means, and extends back a long time before any insurance plan, even that of Germany, came into operation.

In order to examine adequately the question of sickness insurance it is necessary to have a proper definition of what is meant by sickness insurance. The best definition we came across is that given in the Michigan State Society Report under "Conclusions and Recommendations." It is as follows: "Health insurance" (these terms are interchangeable—M. H. W.), "may be defined simply as a project to equalize the burden of costs arising through illness. It attempts to level this burden by attaching a definite meaning to average costs so that averages will constitute the exact costs to a family or individual, rather than conceal extremes of high or low costs."

1. In this definition, then, we find one of the most essential and valid reasons for insurance, namely, the distribution of the risk.

2. Another, and the most important reason is the heavy burden of so-called "catastrophic diseases." There is no doubt that real serious disease or prolonged illness constitutes an unbearable burden to any group, let alone the low-earning groups. This is a moral issue which cannot be sidestepped, and, we believe, must be met by the medical profession honestly and in a spirit of coöperation to the fullest extent. It must be admitted that the advocates of social insurance are on solid ground in their claim that the individual physician is unable to cope with the problem, and collective effort on the part of all elements of the community is essential in meeting this problem.

However, when we have conceded these two premises—in reality but one premise—we have covered all the essential points, *i. e.*, distribution of visits and "catastrophic illness." None of the other reasons advanced in favor of sickness insurance is, to our mind, valid, and there is very good reason to doubt even the sincerity of their advocates, although, if we choose to be charitable, we may say that they are the result of mere sentimentality, superficial thinking, and are a product of half-baked knowledge of the subject—of medical service—as it exists—at hand.

The other reasons advanced, to enumerate but a few, are:

1. That the greater part of the poorer classes is unable to get medical service. Some of the advocates of sickness insurance put the percentage as high as 67 per cent of the population (Rankin).² He does not say it in so many words, but since the upper earning limit advocated for compulsorily insurable persons is \$1500, and according to Rankin's quoting of Leo Wolman there are 67 per cent of families whose annual income is under \$1450, the implication is quite clear that all these people should be insured. This, of course, is unthinkable. The statistics of hospitals and dispensaries in this country attest to the fact that this is not the case.

2. That the health of the people would be immeasurably improved because of everyone having, so to say, free access to medical service.

3. That preventive medicine will be greatly developed, checking the prevalence of such conditions as cardiac disease, nephritic disease, cancer, *etc.*

4. That the individual doctor falls far short in his ability to handle modern practice because he cannot avail himself of modern diagnostic methods, such as roentgen-ray, laboratory service, *etc.*, and that socialized medicine will bring all these boons to suffering humanity.

In face of such ponderous argumentation, one cannot help but ask the question: Have all these things happened in those countries that have been blessed with such insurance?

a. Is the health of the people any better?

b. Is mortality lessened?

c. Is preventive work advanced any more than it is in, say, these backward (talking from insurance standpoint only) United States, which have not as yet gathered unto themselves all these blessings?

d. Does medical service given in the United States suffer by comparison with that in any of the countries which do have sickness insurance?

It is best to turn to the very people who urge this plan for testimony on these points. What do they say on these very subjects?

The International Labor Office Compulsory Sickness Insurance Report, according to even Simons and Sinai,³ is a biased report, as can be seen from this quotation: "The International Labor Office is by no means an impartial observer. It has been instructed by a vote of an overwhelming majority of its constituent nations actively to propagandize for compulsory health insurance. (Report of the tenth session of the International Labor Conference, May, 1927.) It is useless, therefore, to search in the publications of the Bureau for the defects of insurance." But even in this biased report it is admitted that the number of sickness days per population has doubled in countries with compulsory insurance laws.

Again quoting from Simons and Sinai⁴: "Contrary to all predictions the most startling fact about the vital statistics of insurance countries is the steady and fairly rapid rate of increase in the number of days the average person is sick annually, and the continuously increasing duration of such sickness. Various studies in the United States seem to show that the average recorded sickness per individual is from 7 to 9 days per year. It is nearly twice that amount among the insured population of Great Britain and Germany, having practically doubled in both countries since the installation of insurance." While it is being argued that this is more apparent than real, yet they at least must admit that there was no improvement under health insurance.

Similarly, when these authors speak of preventive medicine (page 9) they say:

"Naturally the best *selling* points of this service are stressed. These are the things which each fund has developed to show its superiority over its competitors. Regular medical service, being practically identical in all cases, is never so emphasized. Hospitals, convalescent homes, vacation camps, baths, cures, clinics, and any preventive work that may be done are described in glowing terms, and usually illustrated.

"This is perhaps one of the reasons for a very general acceptance for the claim that provisions for general health care are more efficient under insurance than in the United States. German physicians and insurance officials repeatedly stated as an accepted and undisputed fact that everything done by American Health Departments was done as a matter of routine, in Germany

through insurance and general health administration. Only a most casual inspection was necessary to show that in many such fundamental matters as care of milk supply, supervision of the display and sale of food, *etc.*, conditions existed almost everywhere that would be tolerated only in the most backward American localities."

The same authorities, Simon and Sinai,⁵ make a most remarkable admission when they state (page 16) that: "Social insurance is always a result of low wages," and again in the same paragraph: "That the whole social insurance problem is, at bottom, one of low wages must be recognized as a basic fact. Adequate wages would immediately shift the responsibility of meeting such emergencies from society to individual." Later in the same discussion the same author says: "In spite of the name and all that may be said to the contrary, the dominant motive in the establishment of every system of health or sickness insurance is the RELIEF OF POVERTY, NOT THE PRESERVATION OF PUBLIC HEALTH." (Capitals ours.—M. H. W.)

The report of the International Labor office on compulsory sickness insurance (page 173) commences its chapter on "Condition of Benefits" with the following significant statement: "The object of sickness insurance benefit is to compensate, at least in part, for the loss of income suffered by an insured person owing to the incapacity to work, produced by sickness."

As to the service rendered by the medical profession in the United States, everybody agrees that it at least compares favorably with that offered in other countries. Certainly laboratory procedures, such as roentgen-ray diagnostic procedures, are much more highly developed and readily available in this country. The question of whether the people are able to pay for such service may be debatable, but surely there is no lack of such service. Neither can it be denied that the American physician has contributed his share toward the development of newer methods and betterment of medical practice.

If this be so, then all one can say is that the entire movement (except for the two premises conceded) is immoral. A movement by people who are balked by an economic system in their efforts to raise wages, who then merely turn to an indirect method of raising wages, disregarding the many consequences of their act, such as a thorough dislocation of the medical profession, destroying traditions of the profession, subjecting the medical profession to the evils of economic strife and barter, cannot be called otherwise. It is admitted by all, even the advocates, that such are the results. "In Germany," declare Simon and Sinai,⁶ "the battle between the societies and the medical profession has been practically continuous for fifty years and shows few signs of cessation."

The experience of the British medical profession has not been any better. In spite of the rather authentic reports that the English medical profession is now in favor of sickness insurance, a perusal of the British medical journals makes one sick at heart to see what has become of professional medicine over there. There is haggling of the worst sort going on, and the time of physicians as well as others is just being wasted. Reports of complaints of trivial nature, such as a doctor signing certificates for a poor chronic invalid without seeing the patient as he should have, can be read almost any week. It is such "ponderous questions" that are discussed by full sized committees. All that this tends to do is to lower standards and reduce the doctor to a mere worker, high grade, to be sure, but still a worker, who is buffeted and tossed about by new forces released by a set of inspectors, supervisors, and whatnot.

Were all this done for a true social gain, be it ever so small, this sacrifice might be justified, but all that is attempted, as testified to by the very advocates of the plan, is to raise wages indirectly, and it is quite problematical whether even this is accomplished. Such a procedure, namely, hiding the real objective, and talking about beneficial results to the community, which, they themselves admit, do not materialize, is certainly high geared propaganda.

Does the worker who is compulsorily insured lose anything by this arrangement is another question that needs an answer. Fair-minded students of the subject think that there is some lessening of the standard of medical practice, although it must be admitted, that there are equally as many who claim improvement instead of deterioration of medical practice.

There is, however, another feature which deserves a great deal of discussion, namely, the psychologic effect on the worker. Lockhart,⁷ who is apparently strongly in favor of health insurance, and a member of the British Industrial Health Research Board, quotes Smith and Greenwood to the effect that "the amount of sick absence in any organization is affected profoundly by conditions not of physical but of emotional environment." Further on Lockhart says, "I would go so far as to assert that well over half the time lost among the insured population due to ill health is psychoneurotic." He emphasizes that he is not referring to illness, but to loss of time.

If this be so, it is certainly a serious drawback to the insurable population. They pay a high price for the pittance that they receive. It is not only the time that is lost, but it is the lessening of the morale of the population, the cultivating of the habit of leaning too much on some one else, and getting away from the ability of handling one's own difficulties, a trait that is absolutely essential to make a success of life.

We realize that the advocates of insurance on reading the above statement will raise the cry that this is a new way of pleading for what is contemptuously called "rugged individualism." But, whether rugged individualism in industry is desirable or not, it certainly is a most essential requisite for the individual in making adjustment to his environment. It is quite obvious that leaning on someone, in this case the insurance fund, reacts badly on the personality.

The advocates of socialized medicine seem to think, or rather so they state, that the only thing necessary to overcome this bad effect is to divorce cash benefits from the medical service benefits, and they point to England's experience with the problem of "malingering."*

In England the Funds themselves selected medical inspectors, and it is claimed that the cases that hung on too long were reduced promptly to about one-half. Be that as it may, it does not dispose of the problem of psychoneurosis and its rôle in such a scheme. The very fact that the number of days of sickness in all countries in which sickness insurance is in force has increased so markedly speaks for the fact that psychoneurosis is precipitated by the insurance factor.

The separation of cash benefits merely shifts the issue to other ground, and all it probably will do eventually is to bring about strife and misunderstanding between the doctors of the insured on the one hand, and the medical inspectors on the other hand. This strife is bound to develop because the former applies

the clinical test to the sickness problem, and the latter is bound to develop the so-called insurance point of view.

We have many examples in this country, such as the compensation law cases, the veterans' bureau cases, and finally the disability cases. In all of these, sharp division of opinion among doctors has developed as a result of the differing points of view. We do not mean to convey the impression that this is due to dishonesty on the part of either party; rather, it is due to approaching the problem each from a different angle. This possibility, to our mind, constitutes one of the most serious problems of sickness insurance, if for no other reason than our account of the vast number of insurable workers involved.

This problem deserves a much lengthier discussion, but owing to the nature of this report must be curtailed.

What are the effects on the medical profession?

It may be readily admitted that the income of the doctor is apt to improve, for the reason that he receives a more stable income from that part of the population which under the present system contributes very little to the physician's income. But doctors traditionally have not taken their own personal interests into consideration as a decisive factor, nor has it played a rôle in determining their stand in such matters.

On the other hand, the doctor's freedom of action is curtailed. It seems to us that no matter how we may insist on the elimination of a third party in the scheme of things, such cannot be avoided. It is in the very nature of the set-up to have a third party under one guise or another. The funds must be administered, and this means lay officers, committees, arbitration boards, visitors, and whatnot. In addition, there is the commercial spirit that is bound to creep in once an administration is set up. They immediately become a bureaucratic class with the narrow class psychology. It is inevitable that they should want to succeed, and little by little they develop a standpoint which is diametrically opposite to the medical point of view.

Even the so-called ideal French plan in a comparatively short time of operation—two years—has already brought this out. Hillaire⁸ says: "A study of the professional medical journals certainly does not indicate a hymn of praise for sickness insurance. Fatigue from filling out the multiple reports; indirect but real friction with the personnel managing the societies; irritation of somewhat unjustifiable criticisms and suspicions; in brief, the interference between their patients and themselves by the undesirable third party, even though there be no payment by the third party, although there is a reimbursement, and sometimes also a critical and hostile third party."

It is doubtful if even under the ideal set-up of the Michigan Plan this difficulty can be avoided altogether. But since this plan is not yet in operation it is idle to speculate on this point.

To summarize this point rather briefly, it is our feeling that the insurance feature inevitably emphasizes the business side of the practice of medicine, and the sad part is that under the system it is unavoidable.

We have already referred to indignities and humiliations experienced by the physicians and the representatives of physicians in their dealings with representatives of other groups. The bickerings over trivial matters, the constant criticism of lay personnel in matters of which they cannot possibly have any knowledge, irritates physicians, and sooner or later the very spirit of the profession is bound to be crushed, and instead of the traditional attitude of a noble profession there will

*The writer feels that the term "malingering" is unfortunate. This does not cover all or even a large part of the cases of which Lockhart speaks. Rather it is the psychoneurotic situation which is released by this arrangement, and not malingering. Malingering as such is rather rare.

develop a cynical, commercial attitude on the part of at least a majority of the profession.

One has but to follow the news in British journals from week to week about the clashes that take place, and this, after 22 years of operation of the law. In Germany, the profession did not cease fighting throughout the fifty years of the existence of the law. In France, the profession forewarned by the happenings in other countries, have battled courageously and obtained a law which in a measure preserved a semblance of professional relationship. In less than two years, as reports indicate, the Funds little by little are commencing to undermine the entire structure, and sooner or later the profession there will lose heart and give up the fight.

There is still another phase of the question which deserves the attention of the profession, namely, the danger of lay people and borderline semi-professional groups meddling in medical matters. These groups, as soon as they learn a few scientific terms, get the notion that medicine is an open book to them, and that they are authorities on the subject. Reading of the writings of all these advocates of this reform are sufficient to bring this point out.

Rubinow,⁹ one of the better informed in such matters, bases a great deal of his argument for socialized medicine on a sample case, a Mrs. C., one of the "neediest cases," which the *New York Times* used to arouse sympathy and get contributions for its Christmas fund. While it is true that he used it as an example, we must remind him and the others that at least as far as the requisite medical service in the case was concerned Mrs. C. certainly would have had no trouble in obtaining it. It is strange that in face of experience in other countries Rubinow,¹⁰ in discussing the proposal for socialized medicine that was worked out by the American Association for Labor Legislation says, "It is safe to assume that had the proposed system been enacted into law 20 years ago, we might have been dealing today with a VERY MUCH DIFFERENT WORLD (capitals ours) with a very much different picture of poverty and ill health."

In truth, is not this a bit of wishful thinking? May we ask, why did not these much to be desired improvements occur in Germany, Great Britain, and other countries? We have shown previously that it is universally accepted that health has not improved any in these countries, and that conversely we have not suffered by comparison in the United States. The difficulty is that most of these well-meaning people do not think the problem through. They are so set on boosting their pet theories that previous results unfavorable to them are brushed aside altogether.

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Your Committee's endeavors include an earnest attempt to "devise" a plan to offset any actually threatening legislation for sickness insurance.

Your Committee recommends that the following principles set forth by the American Medical Association at

the recent meeting in Cleveland be adopted as the basis for the conduct of any sociologic experiments that may be contemplated on existing forms of medical practice in Pennsylvania:

First.—All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

Second.—No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the medical profession.

Third.—Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.

Fourth.—The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

Fifth.—All medical phases of all institutions involved in the medical service should be under professional control, it being understood that the hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

Sixth.—However the cost of medical service may be distributed, the immediate cost should be borne by the patient if able to pay at the time the service is rendered.

Seventh.—Medical service must have no connection with any cash benefits.

Eighth.—Any form of medical service should include within its scope all legally qualified doctors of medicine of the locality covered by its operation who wish to give service under the conditions established.

Ninth.—Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

Tenth.—There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

Your Committee gratefully acknowledge the courtesies extended by representatives of the medical groups visited in other states, and the assistance received from official representatives of our State Medical Society.

Respectfully submitted,

PHILIP J. LUKENS, *Chairman*,
EDWARD L. BORTZ,
WALTER S. BRENHOLTZ,
LEONARD G. REDDING.
*MAX H. WEINBERG,

To the President and House of Delegates:

MINORITY REPORT

(SUMMARY OF REPORT ON COMPULSORY SICKNESS INSURANCE)

The writer was assigned the study of Sickness Insurance by the Committee on Medical Economics at the May 29, 1934, meeting, at Harrisburg. While at that time I was opposed to social insurance as such, I made it plain to the committee that I am approaching the

* Member who presents Minority Report.

study of this problem in an unbiased manner, and will follow wherever the facts lead me. The study that I have undertaken was rather comprehensive in its scope, and covered sickness insurance laws of Germany, Great Britain, and France—all plans which have been in operation for a longer or shorter period—and the contemplated plan of the Michigan State Medical Society.

After due consideration of all the arguments advanced by the proponents of social insurance, I have come to the conclusion that there are two valid reasons for making some sort of modification in the present method of rendering medical service to the low wage-earning groups. One was the need of spreading the risk of costly sickness, and the other was the need of relieving the low wage-earning groups of the population from the burden of the so-called catastrophic illnesses,—catastrophic in the sense that not only do they consume all the ready resources of the family but also bring about an overbearing debt. None of the other arguments advanced in favor of social insurance by its advocates is, in my opinion, sufficient reason to bring about a change in the present form of medical practice.

However, I felt that the two reasons mentioned above were of sufficient importance to cause the medical profession to reflect and devise plans to meet this situation. This, I believe, is in keeping with the traditional point of view of medicine throughout the ages, namely, to consider the welfare of the patient, or, in this case, the public at large, first; and if we want to adhere to our traditional policy we must do everything we can to enable these low wage-earning groups to meet this unbearable burden without being crushed economically.

This is not the place to go into the reasons why this problem is so much more crucial at present than at any other time. Suffice it to say that the extreme industrial development of the country during the last half century; the prolonged economic depression, which, as it seems, has not as yet run its course fully; and, finally, the attitude of the Federal Administration toward this problem and its promise for an early social insurance program with laws to be patterned after by the various states, have certainly hastened the day of social medicine. It takes no wizardry then on our part to realize that if we stubbornly persist in rejecting social medicine blindly, we will have forced upon us a situation much more to our dislike. No class in society, be it ever so important, can oppose itself either to the will of the majority or to tides of history. I believe that a true recognition on our part of the actual needs of the situation will enable us to continue to keep the control of medical practice in our hands, and at the same time do full justice by the public.

I accordingly have devised this tentative plan, very much in the rough, which, I have reason to think would meet the requirements of the situation on the one hand, and perhaps eliminate, or at least minimize, the abuses of social medicine as they have developed in countries where these laws have been in operation. Naturally, such an innovation should not be presented publicly before the House of Delegates has had opportunity to study it, digest it, and approve it. We must all adhere to the democratic way of putting forth our ideas, no matter how much we may think they are desirable or essential. While I do hope that this plan will be approved by the House of Delegates, I have no hesitation at all in bowing to the decision of the State Society, acting through its accredited representatives.

Respectfully submitted,

MAX H. WEINBERG.

PROGRESS REPORT OF THE CHAIRMAN EMERGENCY CHILD HEALTH COMMITTEE

To the Board of Trustees of The Medical Society of the State of Pennsylvania:

This report will follow the same general plan as that submitted under date of Feb. 1, 1934. Your Chairman is very pleased to report that the work of the Emergency Child Health Committee continues to develop in a surprisingly satisfactory manner.

Visits to counties have continued, Mrs. Strauss and Dr. Royer having accomplished excellent results in stimulating action, as will be shown later, and bringing new counties into line.

Participating counties: Two new chairmen have been appointed since February 1, in Cameron and Fulton Counties respectively. In one county in which the county medical society decided last August to discontinue the work, they have reconsidered and the former chairman was re-appointed, a vice-chairman chosen and two regional chairmen. In two inactive counties new chairmen have been appointed, both of whom are pursuing the work vigorously. Five new vice-chairmen have been appointed and twelve additional county committees (Adams, Butler, Cambria, Clarion, Forest, Fulton, Greene, Lehigh, Mifflin, Montgomery, Northumberland, and Westmoreland).

In one county, in which the County Medical Society is not supporting the work, the County Medical Director is making examinations on the Emergency Child Health Committee forms, reporting them to your Chairman and seeing that follow-up work is carried on.

There still remain four counties with appointed chairmen who are inactive (Clearfield, Crawford, Erie, and Lebanon). It is hoped that Lebanon County will soon become active. In addition, there are 8 counties with no chairmen appointed (Beaver, Cumberland, Dauphin, Franklin, Lawrence, Mercer, Philadelphia, Schuylkill), but it is likely that Franklin County may soon endorse the program.

Examinations: The reporting of examinations has greatly improved since the last report, although it is still evident that many examinations have been made which are not yet reported and the information received is frequently not as complete as desired.

To date 63,007 examinations have been reported from 46 counties, there being an additional county in which it is known that examining is under way but no reports have been sent in. This is an increase of 17 examining counties since the date of the last report. It is known that examinations are starting in several other counties. A number of committees are nearing the completion of the examining of the children on relief. These are now actively engaged in the examination of children in borderline families, in the correction of defects and the promotion of the nutrition program. Some of them are also urging, through the medium of women's clubs, men's service clubs, the activities of their own committees, and other coöperating agencies, the periodic health examinations of all children, of course including those who are able to pay. Your Committee is urging this procedure with all the force it can muster.

RESULTS

Dental Service.—Three counties have completed all the correction of dental defects indicated. In one of these 5000 children have received dental care. In many counties the dental work is going rapidly ahead.

Tonsillectomies.—The campaign for the removal of diseased tonsils continues to be one of the chief activ-

ities of our committees. A surprising number of children have had tonsillectomies.

Immunization Against Diphtheria.—Many counties are doing a great work in the administration of toxoid, the State Department of Health supplying the material free of charge. In a number of counties, they plan to see that every child under age 10, on relief, is protected against this unnecessary disease. In two counties (Lehigh and Northampton) cards have been prepared which are placed on the desks of the physicians in the counties, reading as follows:

TO PARENTS:

I am asked by The Medical Society of the State of Pennsylvania and by the Emergency Child Health Committee of County, with the approval of the Department of Health of the Commonwealth of Pennsylvania, to call your attention to the necessity of having all children between 6 months and 10 years of age protected against diphtheria with toxoid. This is simple, safe and lasting. The doctors of County are cooperating with health officials to wipe out this dangerous disease of childhood. If you have children who have not yet been protected, please have this attended to.

..... M.D.

These cards are being used in an attempt to have every child in the county, the indigent, near indigent, and those who are able to pay, protected against diphtheria.

Vaccination Against Smallpox.—This campaign is being pursued almost as effectively as that of immunization against diphtheria.

Eye Defects.—A report has been received from the State Department of Health, giving the results of the school examinations in the Fourth Class districts in 1932-33 which shows over 5000 children in the State found to have visual defects of 20/70 or more in one or both eyes. This figure may be multiplied by 4, as only one-quarter of the schools in the Fourth-Class Districts held examinations last year. If over 20,000 children in these rural schools are so afflicted, what must be the total for the State as a whole! Our reports corroborate these figures. In many counties, glasses are being provided with money raised in various ways by lay groups.

Nutrition.—While it is appreciated that the figures on malnutrition compiled by this Committee cannot be relied on statistically, because of the personal equation among the examining physicians and the variations in reporting, it is interesting to note that the percentage for the State as a whole continues each month practically the same, although the most recent total is the highest yet computed, namely, 30.5 per cent.

Percentages of Defects Discovered.—Only a few counties report adequately on the defects found, so that the percentages given below, except for malnutrition, and lack of protection against diphtheria and smallpox, are calculated on comparatively small numbers of cases: Children Under Age Six—Malnutrition, 23.4%; not immunized, 81.5%; not vaccinated, 83.5%.

Children of All Ages—Malnutrition, 30.5%; not immunized, 65.1%; not vaccinated, 35.6%; dental defects, 46.2%; diseased tonsils, 38.0%; cardiac defects, 3.3%; eye defects, 6.7%; ear defects, 2.5%; orthopedic defects, 7.6%; lung defects, 3.5%; behavior disorders, 7.8%.

Correction of Defects.—The excellent work being done along this line is of twofold value—primarily to the children and secondarily in arousing the enthusiasm of the communities. One chairman recently wrote, "The more of these we can do, the more interest by the general public in this work.....in getting them interested.....I feel that we can lead them to see the necessity of doing some nutrition and other work."

As an example of corrective work, there is here quoted a recent report from a very active county: Children examined, 2254; glasses furnished, 72; tonsillectomies and adenoidectomies, 133; circumcisions, 32; cases to chest clinic (all roentgen rayed), 79; dental cases, 443; orthopedic, 15; congenital cataract operation, 1; heart cases being treated, 45; mental cases—special examination at State School, 20; hernia truss purchased, 1; prescriptions filled, 16; toxoid given (intensive campaign starting), 73; vaccination, 12; cod liver oil, 874; nutrition instructions to parents, 669; health talks to parents by nurse, 87; Wassermann tests (all negative), 26; referred to G. U. Clinic for sinears (5 negative, 1-?), 6.

Mention may well be made of 2 rural counties with few physicians in which remarkable work is going on, due to the fine spirit of the chairmen and vice-chairmen. In one of these, where the malnutrition percentage is 38.5, distressing situations are found. In one family of 8 malnourished children, the diet consisted of potatoes with a scant amount of milk.

Comparative Study.—One county has made a comparative study of school examinations in 1930 and 1933. The percentage of malnutrition had increased in these three years from 17.33% to 22.50%, with increases noted also in enlarged cervical glands, eye and dental defects.

Home Economics Work.—This is a highly important part of the Committee's work. Programs are under way in 27 counties at least. In one county 200 of the most severely malnourished children were kept under constant supervision. The group shows an increase of 20 per cent in weight. In another county the vice chairman has noted the improved buying judgment of the mothers since the Emergency Child Health Committee program was started, by comparing the old and new bills for food orders. Two counties have prepared sheets for reporting the results of the interviews with the families. Fayette County has perfected its nutrition program admirably. To date 7761 mothers have been instructed in homes and 1600 in classes. The chairman found that the work was much more effective if instruction was given the mothers in their homes.

The home economics work has proved so effective that the State Emergency Relief Board has appointed a State Nutritionist, Miss Anna C. Stapler, on its staff. This will afford valuable assistance to our Home Economics Committees, assist in extending the work by stimulating counties that have been lagging behind, and make still closer our coöperation with the County Emergency Relief Boards.

County Committee Members and Volunteers.—There is a large army of volunteers engaged in the work of the Emergency Child Health Committee, 3781 members of county committees being reported to date. In addition there are hundreds of volunteers, physicians, dentists, nurses, home economists, social workers, club members and detached lay people aiding in the work of the committees. In one county 609 individuals are serving. This makes a veritable and effective army organized and working for better health for our children.

COÖPERATION

Emergency Relief Board.—Further coöperation is assured through the appointment by the Emergency Relief Board of Regional Supervisors, having about 20 counties in their districts. These supervisors have made contacts with the Central Office of the Emergency Child Health Committee and will be kept informed of difficulties arising in the counties under their direction.

Pennsylvania Congress of Parents and Teachers.—This organization has been most coöperative and this spring agreed to use the Emergency Child Health Committee examination forms for their Summer Round-Up examinations. Our County Chairmen have supplied them with the names of children about to enter school who have already been examined, so that there should be no duplication of effort. The Summer Round-Up examinations are reported to the County Chairmen. Following the principle of the work of the Emergency Child Health Committee, the Congress of Parents and Teachers also agreed that free examinations should be given only to the children of parents unable to pay, but that other parents should be asked to pay a moderate fee and have their children examined by their family physicians, using the Emergency Child Health Committee form.

State Department of Public Instruction is coöperating with this program. It has instructed all County and District Superintendents to see that all children entering school this autumn have received the Emergency Child Health Committee examination, and will check in September to see that this has been done. State Secretary of Public Instruction Rule states that this offers the schools an opportunity to have a "health examination" instead of the present type of "medical inspection," which latter, for legal reasons, must be made without removal of the clothing.

Other Organizations.—The Women's Clubs have participated largely in this work, responding wholeheartedly to the appeals made to them. The various Departments of the State Government have continued their invaluable assistance. Recently the State Veterans' Commission has approached the Committee with a request for examinations to be made of the children of indigent veterans to whom they dispense State relief funds and with the offer of their field workers to assist the County Committees. In one county, Boy Scout examinations were made on Emergency Child Health Committee blanks. Malnutrition found—49.1 per cent.

FINANCING

State Committee.—The State Emergency Relief Board has recently allocated to the Emergency Child Health Committee the additional \$10,000 which was originally appropriated for the administrative end of this work. At the past rate of expenditure, this should insure the support of the Committee for more than another year.

County Committees.—The state-wide organizations have been most generous in their financial assistance to the County Committees. The Red Cross, the Tuberculosis Society, the men's service clubs, the Congress of Parents and Teachers, and the women's clubs have all assisted in paying for the correction of defects. Money has also been raised by fêtes, card parties, etc. One county has raised more than \$1600. Another, with a population of about 7500, has raised \$340.

New Members.—There have been several changes on the State Committee. It is a source of great gratification to your Chairman that Mrs. Berthold Strauss and Dr. Charles H. Smith, the very able chairman of the Fayette County Committee, have been appointed Vice-Chairmen. It is regrettable that Miss Chace felt it advisable to resign. In her place Miss Margaret Brown, in charge of Home Extension Service, Pennsylvania State College, has been appointed. Professor M. S. McDowell, Vice-Dean and Director of Extension, School of Agriculture, Pennsylvania State College, is also now a member of the Executive Committee.

Propaganda.—The addresses given on behalf of the Emergency Child Health Committee in the past 6

months are too numerous to list. Mention may well be made, however, of the meeting of the Pennsylvania Conference on Social Welfare. A half-day session of this meeting was offered the Emergency Child Health Committee to prepare a program. The speakers consisted of Dr. Guthrie, Dr. Harold A. Miller, Mrs. Berthold Strauss and your Chairman, with Dr. Appel presiding. Following this, invitations were received to prepare similar programs for three of their regional meetings—Pittsburgh, Huntingdon, and Williamsport. Mrs. Strauss was the guest speaker at three regional meetings of the Woman's Auxiliary of The Medical Society of the State of Pennsylvania. The Pennsylvania Public Health Association invited a speaker to their annual meeting in Philadelphia. Dr. Royer represented the Committee. In June, 1934, the *Ladies' Home Journal* published an article by Dr. Paul de Kruif entitled "Forgotten Children" which dealt largely with the work of your committee. This was accompanied by an editorial giving credit where it is due—to the medical profession.

Secretarial Service.—The Committee was fortunate in that the State Emergency Relief Board decided to continue all the Civil Works Administration secretaries allotted the County Committees when the change was made to the Work Division. These secretaries have been of the utmost assistance in organizing and carrying through the work of the County Committees. This fact has been reiterated many times by the county chairmen.

Acknowledgments.—Perhaps the briefest and most effective way of acknowledging the extraordinary support the work of your Committee has received is to state that all individuals and agencies that have heretofore coöperated with us have not only continued but extended their efforts in our behalf. Your Chairman wishes especially to express his sincere appreciation of the encouragement and helpful support he has received from Dr. Guthrie, our President. He has never failed to give prompt and wise consideration to any question that has been submitted to him.

As Chairman of your Committee I cannot refrain from again paying tribute to the unremitting and effective services of our Vice-Chairmen, Mrs. Strauss, Dr. Royer, and Dr. Charles H. Smith (appointed since the last report of the Committee was submitted). Among them practically every county in the State has been visited and the county committees reinspired through their efforts.

Not having heard recently from Dr. Falkowsky, to whom I have continued to send copies of the office correspondence, I wrote asking whether he wished me to continue this service. A quotation from his reply is worth giving: "Please don't drop me from your mailing list. I am more interested than ever in the success of the Emergency Child Health Committee. It is surprising the number of men who originally opposed your plan who are now its greatest supporters."

This changing attitude is very evident. The seriousness and enthusiasm with which the county Chairmen and the members of their committees have entered the work, the splendid service the members of the County Societies have given, the appreciation and unrestricted coöperation of the various privately and publicly supported agencies within the counties and the lay interest and assistance in the work, has made it clear to most of the profession that the work of these committees offers a rare opportunity for service to children. The experience of your Chairman has been that wherever opportunity to serve is offered the medical profession, they are always prepared to give freely of their time and service.

In closing may I express to you the measure of my indebtedness to the four young women who are serving so faithfully and interestedly in my office. I must especially mention Miss Mildred Morse, who is serving as Administrative Assistant. Without her vision, enthusiasm, and meticulous care the work could not have prospered as it has.

Respectfully submitted,
S. McC. HAMIL, *Chairman.*

REPORTS OF DELEGATES TO OTHER SOCIETIES

REPORT OF DELEGATE TO PENNSYLVANIA PHARMACEUTICAL ASSOCIATION

To the President and House of Delegates:

On June 19, I attended the 57th Annual Convention of the Pennsylvania Pharmaceutical Association, at Wernersville, as the delegate from The Medical Society of the State of Pennsylvania. I was cordially received and was very well pleased with the spirit that prevailed. They had a fine convention which was well attended. Several talks were given on the relationship between the physicians and the pharmacists and the importance of such ethical contacts stressed. There seems to be a strong attempt to get away from the proprietary drugs and back to the regular drugs of the *Pharmacopeia* and *National Formulary*. This move is certainly commendable for many reasons, and I am sure it will meet with the approval of the members of our House of Delegates. I am grateful for this opportunity to serve as delegate.

LOUIS J. LIVINGOOD.

REPORT OF DELEGATES TO A.M.A.

To the President and House of Delegates:

The Medical Society of the State of Pennsylvania was represented in the House of Delegates of the American Medical Association at the 1934 Session held in Cleveland, Ohio, June 11 to 14, by the following duly elected delegates and alternates:

Dr. Howard C. Frontz, Huntingdon; Dr. Herbert G. Gibby, Wilkes-Barre; Dr. J. Newton Hunsberger, Norristown; Dr. J. Allen Jackson, Danville; Dr. Frank P. Lytle, Birdsboro; Dr. William H. Mayer, Pittsburgh; Dr. Samuel P. Mengel, Wilkes-Barre; Dr. Arthur C. Morgan, Philadelphia; and Dr. Charles G. Strickland, Erie. Dr. James H. Corwin, Washington (alternate-designate) serving for Dr. Walter F. Donaldson, absent on account of illness. Dr. J. Norman Henry of Philadelphia was unavoidably absent. The delegates selected Dr. William H. Mayer as their Chairman.

The following members of our delegation were appointed and served on Reference Committees of the House: Dr. Hunsberger on the Committee on Amendments to the Constitution and By-laws; Dr. Mengel on the Committee on Reports of Board of Trustees and Secretary; Dr. Mayer on the Committee on Medical Economics. Dr. H. C. Frontz served as Sergeant-at-arms.

Numerous resolutions were referred to all reference committees, and a special reference committee was constituted to consider the resolutions introduced by the Michigan State Society regarding the Economics program. Dr. Nathan B. Van Etten of New York State was Chairman of this Committee.

The Indiana delegation introduced a resolution requesting that the Board of Trustees contact organized labor relative to the question of health insurance. The reference committee later reported this resolution to include all interested parties. This action received the support of the Pennsylvania Delegation.

Dr. Orin S. Wightman introduced a resolution for the Medical Society of the State of New York regarding medical advice over the radio. This resolution received the support of the House of Delegates, with instructions to officers to make direct representations to the heads of the great broadcasting systems.

The physical therapy question again came to the floor, with resolutions calling for standardization.

Resolutions limiting staff positions to members of the county medical societies in hospitals approved for intern training were introduced. It was later demonstrated that the proposed requirements now obtain in fully 85 per cent of approved hospitals but that such a hard and fast rule would prove impracticable.

The question of free choice of physician under the Federal Compensation Act received support.

A joint meeting of the American Medical Association and the Canadian Medical Association for 1935 was approved.

Resolutions on contraceptive methods again became the subject of discussion. The Reference Committee referred these matters to the House, without recommendation, and the resolutions were defeated.

The announcement that the Board of Regents of the College of Surgeons had officially decreed for hospital insurance was met by a rebuke from the Judicial Council of the American Medical Association, the report of which was carried unanimously. The purport of this Council's report was to the effect that such special scientific bodies are not in a position to take stands concerning basic considerations regarding the practice of medicine, since this should remain solely the function of the American Medical Association.

The resolution of the Michigan State Medical Society for the creation of a special committee to prosecute the study of medical economics was defeated, and the matter referred to the Board of Trustees and the Bureau of Economics, with the suggestion that if Advisory Committees were necessary, they should be appointed under the direction of the Board of Trustees.

In the re-apportionment of delegates, Pennsylvania was awarded another delegate, increasing our representation in the 1935 House to 11.

The election of officers resulted in the election of Dr. James S. McLester, of Birmingham, as President-elect; Dr. George G. Reinle, of Oakland, California, First Vice-president; Dr. Olin West, Secretary; Dr. Herman L. Kretschmer, Treasurer; Dr. F. C. Warnshuis, Speaker; Dr. Nathan B. Van Etten, Vice Speaker; and Dr. Roger I. Lee and Allen H. Bunce, Trustees.

Atlantic City, New Jersey, was chosen as the place of meeting of the 1935 session.

It is interesting to note that the Reference Committees of the House assumed their prescribed functions in a most efficient manner, and thorough and complete discussions of all matters pertaining to the resolutions introduced and referred were held between sessions. The subsequent discussion of committee reports on the floor of the House was therefore intelligent, and the business of the House satisfactorily expedited.

The resolution of the Michigan State Medical Society, after consideration of the special reference committee, drew forth a statement of 10 principles governing the practice of medicine, which have been elsewhere pub-

lished, and which received the support of the House of Delegates.

The general impression gained by your delegation definitely forecasts a continued fortuitous stand against

inroads into medical practice as we now know it, tempered with a thorough understanding of social trends and an attitude of coöperative tolerance towards sane progress.

WILLIAM H. MAYER, *Chairman.*

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

ANNUAL REPORTS

This number of the JOURNAL contains in summarized, and we trust easily understood terms, the reports of the Secretary, the Treasurer, the Chairman of the Board of Trustees, the individual Councilors, certain delegates, and the standing and various special committees of our Society. It is inevitable that the published yearly transactions of a medical society with 8000 members will contain statements of fact and expressions of opinion which are interesting if not suggestive and instructive to the membership. The transactions, which are plainly and frequently recorded, are an open book only to those who will take the trouble to read them. Do not fail to read the report of each State Society officer (11 in number) who is the "judicial representative of this (State) Society for a District consisting of certain counties"—67 counties—11 Councilor Districts. Read and reread the multi-titled report of the Committee on Medical Economics, not failing to note that it includes a minority report. All these reports should be studied by our members, and especially by the members of the House of Delegates. By a careful study of the reports you may determine to offer the benefits of membership to some eligible physician not yet a member of your society. In any event, after reading the reports for the closing year, you will either settle back in your chair a satisfied member, or better still, you will become a more active member than you have been before.

REDUCED RAILROAD FARE FROM WILKES-BARRE

A concession of one and one-third fare on the Certificate Plan has been granted to members of our Society, and dependent members of their families, traveling to our 1934 session in Wilkes-Barre by rail, provided 100 *certificates* are obtained. Efforts along this line have been unsuccessful in past years (except in 1932 in Pittsburgh) partly due to failure of some members to ask for a *certificate* when purchasing their

"going" ticket at the railroad office. Even though you travel but a short distance be sure to request a *certificate* and have same validated, for unless 100 certificates are validated those traveling greater distances at greater expense will receive no benefit from this plan.

The following advice is offered regarding the reduction authorized on this plan:

1. Purchase regular one-way ticket to Wilkes-Barre at railroad office (may be purchased between September 27 and October 3) and be sure to ask for a *certificate* (not a receipt) at that time.

2. When you register in Wilkes-Barre at the State Society's Registration Desk, deposit your *certificate*. The representative of the railroad company will be at the Society's Registration Desk on Wednesday and Thursday, October 3 and 4, for the purpose of validating certificates, provided 100 have been turned in by that time.

3. Present the validated *certificate* to the ticket agent when purchasing transportation to the *original starting point*, which will entitle you to purchase your return transportation at one-third the regular fare.

Again we urge that though your railroad fare be but \$2.00 (the minimum allowed under the plan) and the saving to you be infinitesimal, your *certificate* obtained at the time you buy your "going" ticket may alone make it possible for scores of your fellow members to save a considerable amount on their more costly tickets.

EFFECTIVE MOBILIZATION IS NOT INEXPENSIVE

In this Department in the August JOURNAL we briefly reviewed the expenditures for the current year of standing and special committees, exclusive of the Committee on Scientific Work, which absorbed \$1.14 of each member's annual State Society dues. We now call attention, under the above title, to the expenditure of our Society's funds for officers' travel expense for the year, approximating \$3000, or 40c of each member's annual dues. "Officers' travel expense" includes expense incurred in attendance by the President, the President-elect, the Secretary, and eleven Trustees upon county society and councilor district meetings, meetings of standing and special committees, meetings of the

Board of Trustees held between annual sessions, and meetings of welfare and other lay groups interested in health problems.

To any one who may infer that too much money is being expended for this purpose we might point out that our officers find it a physical impossibility to accept all the invitations or the assignments with which they are importuned. Also the benefits expressed in terms of unity and in the development of desirable public relations should be obvious.

The ledger account in the Secretary's office from which the above totals are taken indicates that the President and the President-elect alone of our Society in the past 10 months have attended a total of 51 meetings, many of them in Harrisburg, but many more of them in all parts of the State. This item of expense has increased $33\frac{1}{3}$ per cent in the past year, but we believe that none will gainsay the statement that in knitting more closely together county societies and councilor districts, activating the State Society and it in return reacting upon its component societies has proved a good investment.

CONTRIBUTION TO PUBLIC WELFARE IN PENNSYLVANIA

The Medical Society of the State of Pennsylvania through its Board of Trustees has just released a 100-page Booklet entitled "Summary of Pennsylvania's Poor Relief Laws Affecting Care of the Indigent Sick—A Digest of Laws and Practices." There have been added two Supplements: (A) Discussing the Pennsylvania Plan for Emergency Medical Service to Those on Unemployment Relief; and (B) Pennsylvania's Work Relief Compensation Fund.

The character of the contents of this Booklet probably can be no better described than in the words of its accompanying letter of introduction and of its preface which appear below.

The contents of the Booklet include a paper read by Edgar S. Buyers, M.D., of Norristown, before our 1933 Annual Secretaries' Conference, which was printed in the February, 1934, *PENNSYLVANIA MEDICAL JOURNAL*; also the reports submitted by C. D. Koch, D.Pd., as a result of his investigations regarding medical service facilities to the indigent in 44 Pennsylvania counties, which were printed in the March and April numbers of the *JOURNAL*. The Table of Contents of the Booklet lists 98 items ranging in type of subjects from "Is Doctors' Pay Dependent Upon Results?" page 69, to "Forms of Application for Participation in Medical Service Rendered Under RWD," page 96.

The Booklet has been distributed to those indicated in the first sentence of its Preface, and until the supply of 1500 copies is exhausted, will be available to those requesting same. The introductory letter and preface follow:

ADEQUATE MINIMAL MEDICAL SERVICE TO THE INDIGENT

DEAR SIR/MADAM:

Believing that you are interested in a complete service to the indigent of your district (food, clothing, shelter, sickness service) whether it be of township, borough, city, county, state, or nation (enumerated in the order of familiarity with and responsibility for the problem involved) we are mailing you this Booklet dealing with the subject at hand.

It is obvious that sickness service can not be separated from other forms of public relief. With two years' experience in emergency relief, the State of Pennsylvania is now facing the necessity for developing a long-time relief program.

This Booklet conveys facts, experiences and suggestions concerning the medical phase of relief as it has been developed in many Pennsylvania Counties. Its distribution is a token of the desire of the Medical Society of the State of Pennsylvania—the parent organization of the county medical societies—to labor with other state-wide organizations interested in the correct solution by State, County, *etc.*, of health and welfare problems.

Very truly yours,

EDGAR S. BUYERS, M.D.,
Chairman Board of Trustees,
WALTER F. DONALDSON, M.D.,
Secretary.

August, 1934.

PREFACE

This Booklet has been prepared for distribution by The Medical Society of the State of Pennsylvania to county poor authorities, social workers, county medical society officers, and others interested in the socially important responsibility for minimal adequate medical service to the indigent. That provision of minimal adequate sickness service to the indigent is the economic liability of society at large (the taxpayers) and the professional responsibility of the county medical societies, has long been the contention of the organized medical profession in Pennsylvania.

With the four possible interpretations in administering the multiple phases of relief to the indigent under Pennsylvania's General Poor Relief Act, and with the almost uniform lack of knowledge or experience in social movements among its administrators, it is but natural that little progress has been made. That rapid progress is being made, however, in the phase of medical service to the indigent is manifest in the facts herein set forth. Due to the very recent progress in the development in medical service to the unemployed under County Emergency Relief Boards in all counties in Pennsylvania, a number of counties have adopted similar systems in the discharge of their responsibility to the indigent sick. In such counties there will be found evidence of endeavors to meet properly this grave social responsibility.

The careful reader of the reports of existing facilities for sickness service to the poor in 44 Pennsylvania counties will note in many counties that no practical interest in the problem is shown by any but the sick pauper himself and certain officers of the county or

municipal division who are too often candidates for reelection.

That there may be developed a sickness service to all Pennsylvanians receiving other forms of governmental relief, that will at once be equitable to the patient, the taxpayer, and the practicing physician, this Booklet is hopefully dedicated.

The Medical Society of the State of Pennsylvania, 230 State St., Harrisburg.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence make grateful acknowledgment of the following contributions to the fund:

Woman's Auxiliary, Berks County Medical Society	\$75.00
Woman's Auxiliary, Blair County Medical Society	75.00
Woman's Auxiliary, Center County Medical Society	50.00
Woman's Auxiliary, Clarion County Medical Society	20.00
Woman's Auxiliary, Dauphin County Medical Society	100.00
Woman's Auxiliary, Erie County Medical Society	50.00
Woman's Auxiliary, Franklin County Medical Society	25.00
Woman's Auxiliary, Indiana County Medical Society	50.00
Woman's Auxiliary, Mercer County Medical Society	22.00
Woman's Auxiliary, Lackawanna County Medical Society	200.00
Woman's Auxiliary, Lebanon County Medical Society	75.00
Woman's Auxiliary, Somerset County Medical Society	10.00
Woman's Auxiliary, Warren County Medical Society	3.35
Woman's Auxiliary, Washington County Medical Society	25.00
Woman's Auxiliary, The Medical Society of the State of Pennsylvania	100.00

Total contributions since 1933 report\$2,720.35

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since July 19. Figures in first column indicate county society numbers; second column, State Society numbers:

1934			
July 19	Butler	48-52	7638-7642
	Erie	147	7643
20	Somerset	39	7644
	Cambria	169-170	7645-7646
	Monroe	21	7647
24	Berks	161	7648
	Bucks	60	7649
26	Philadelphia	1953-2067	7650-7764
	Chester	103	7765
	Clarion	30	7766
	Allegheny*	1294-1295	7771-7772
	Allegheny	1276-1301	7767-7792
31	Luzerne	315	7793

1934			
Aug. 1	Dauphin	203	7794
7	Berks	162	7795
	Lancaster	170	7796
9	Center	23-24	7797-7798
10	Bucks	61	7799
11	Fayette	112-113	7800-7801
13	Lehigh	143-144	7802-7803

* 1933 dues.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to August 14:

ALLEGHENY: *Death*—Charles F. Keyser, Duquesne (Coll. Phys. & Surg., Balt. '86), in July, 1934. *Reinstated Member*—Peter G. Motta, Carnegie.

BERKS: *Reinstated Member*—Henry L. Kieser, 122 Douglas St., Reading. *Resignation*—Clifford L. Kaucher, Reading; Frederick W. Light, Jr., Clarksburg, W. Va.

BUCKS: *Reinstated Member*—Gulden Mackinnell, Langhorne.

BUTLER: *New Member*—A. A. Huba, N. Main St., Butler.

CAMBRIA: *New Members*—Paul N. Friedline, 803 Franklin St., Johnstown; Rayford E. Wright, 366 First St., Conemaugh.

CARBON: *Death*—William H. Kasten, Lansford (Jeff. Med. Coll., '93), June 5.

CENTER: *Reinstated Members*—Herbert R. Glenn, Grover C. Glenn, State College.

CHESTER: *Reinstated Member*—William H. Emery, Coatesville.

CLARION: *New Member*—John S. Wilson, New Bethlehem. *Death*—Clement E. Sayers, Hawthorn (Univ. of Pgh., '96), June, 1934, age 67.

COLUMBIA: *Death*—Isaac R. Wolfe, Espy (Jeff. Med. Coll., '95), recently.

FAYETTE: *Reinstated Member*—Francis J. King, Conellsville.

LACKAWANNA: *Death*—Jonathan M. Wainwright, Scranton (Columbia Univ., '99), Aug. 3, age 60.

LANCASTER: *Reinstated Member*—William G. Moorehouse, 134 E. Walnut St., Lancaster. *Death*—Lewis M. Bryson, Paradise (Jeff. Med. Coll. '79), July 28, age 84.

LEBANON: *Death*—Monroe D. Reese, Lebanon (Univ. of Pa., '21), recently, age 38.

LEHIGH: *New Members*—Asher G. Kriebel, R. 1, New Tripoli; Herman F. Meckstroth, 370 Main St., Red Hill; William W. Haines, Slatington; Harold M. Tuberty, 1124 Hamilton St., Allentown.

LUZERNE: *Removal*—Joseph J. Repa from Wilkes-Barre to Trucksville; Francis G. Tonrey from Kingston to Miners Bank Bldg., Pittston; Michael Yankowicz from Wilkes-Barre to Newark, N. J. *Death*—Thomas H. Mays, Freeland (Univ. of Pa., '10), July 1, age 49.

MIFFLIN: *Death*—Frederick A. Rupp, Lewistown (Univ. of Pa., '00), July 23, age 58.

MONTGOMERY: *Transfer*—Ronald McIntosh, Norristown, from Berks County Society.

PERRY: *Death*—Benjamin F. Beale, Duncannon (Med. Chi. Coll., Phila., '01), May 26, age 62.

PHILADELPHIA: *New Members*—Fay Alexander, Gravers Lane-Flourtown Rd., Felix A. Anderson, 2132 N. 21st St., Alfred Ayella, 1213 S. Broad St., Wilbur Bailey, Temple University Hospital, Joseph Bartone,

1532 S. Broad St., Theodore W. Battafarano, 5556 Lansdown Ave., Dominick Battaglini, 1805 S. Broad St., Asher S. Bellak, 1526 S. Sixth St., Harry Bernstein, 2456 N. 16th St., Henry G. Blessing, 3477 St. Vincent St., Otto P. Borger, 930 S. 49th St., Elizabeth G. Bradt, 1242 Harrison St., Joseph D. Brown, 6612 Germantown Ave., Saverio F. Brunetti, 3642 N. Sixth St., Anne R. L. Caffrey, 5900 Washington Ave., Joseph Callaghan, 2036 E. Allegheny Ave., Edward W. Campbell, 1601 Walnut St., Leon S. Caplan, 3400 Ryan Ave., Raphael Carpel, 2416 N. 32d St., William B. Carter, 737 N. 44th St., Laurence M. Codori, 2405 W. Lehigh Ave., Harry D. Conley, 2544 Ridge Ave., Alexander Charles Cohen, 1921 E. Dauphin St., Oscar J. Cooper, 1621 Jefferson St., Joseph A. Coscorello, 1627 S. Broad St., Earl B. Craig, 7620 Mountain Ave., Elkins Park, James H. Cunningham, 1703 S. 22d St., Kirksey L. Curd, 4054 Aspen St., William Drayton, Jr., 407 S. 22d St., Charles W. Dunn, 269 S. 19th St., Franklin R. Everett, 23 S. Redfield St., Emanuel R. Ferguson, 2300 W. Montgomery Ave., Harry Fine, 147 W. Roosevelt Boulevard, Goldie Fink, 213 Greene Lane, Manayunk, Carl C. Fischer, 621 E. Mt. Airy Ave., John C. Flanagan, 2114 Cheltenham Ave., Jacob M. Gordon, 4617 N. Broad St., Louis Goss, 1918 E. Dauphin St., Paul E. Gutekunst, 4823 N. 12th St., Sidney D. Handcock, 257 S. 16th St., David S. Hausman, 2222 E. York St., Hubert W. Hetherington, Phipps Inst., 7th and Lombard Sts., Francis S. Hickey, 934 E. Cheltenham Ave., Louis Horwitz, 625 Snyder Ave., Francois L. Hughes, 1601 Walnut St., J. Theodore Irish, 1719 N. 21st St., Francis M. James, Jr., 453 Greene Lane, Rxb., James R. Johnson, 1338 Parrish St., Albert B. Katz, 345 E. Wyoming Ave., Joseph S. Kenney, 5500 Lansdowne Ave., Frederick W. Killian, 3725 Spring Garden St., Albert V. Lampe, 5119 Pine St., Edward A. Leonard, Jr., 6045 Oxford St., Leon Lewis, 4300 Chestnut St., Moses Lipschutz, 3868 W. Girard Ave., Samuel S. Lipschutz, 5811 Pine St., Joseph Lomax, 1834 W. Venango St., Francis P. McCauley, 3225 Magee Ave., Everett S. McDaniel, Jr., 2022 72d Ave., John J. McKenna, 5448 Whitby Ave., Max Mann, 202 Ritner St., Vincent Marcucci, 769 S. Eighth St., Josef Margolis-Gordon, 1813 N. 33d St., Merle M. Miller, 6013 Greene St., Gtn., A. Allen Miner, 12 E. Providence Rd., Lansdowne, Alma D. Morani, 3655 Indian Queen Lane, Meyer Naide, 1937 E. Fifth St., Henry J. E. Newman, 27 S. 16th St., Nathan M. Noble, 5940 N. Fifth St., David S. O'Donnell, 330 N. 52d St., Capers Baxter Owings, Greene & Coulter Sts., Gtn., Thomas H. Price, 1311 Wakeling St., Francis D. Purnell, 1332 S. 22d St., Charles S. Raue, 1530 Locust St., John L. Reeves, 4517 Fairmount Ave., Adolph Reichman, 4900 Bingham St., John A. Reisinger, 111 N. 49th St., Rebecca McF. Rhoads, 1635 S. Broad St., George J. Rilling, 5750 Rising Sun Ave., Samuel E. Robertson, 1801 W. Berks St., Isaac Rodman, S. W. Cor. 12th & Chew Sts., Desiderio Albino Roman, 1951 N. Broad St., Harold S. Rosenblatt, 1007 Pine St., Norman S. Rothschild, 235 S. 15th St., Fred R. Schechter, 314 Wolf St., Eugene M. Schless, 1531 Widener Pl., Louis Schwarz, c/o Litt Bros., 8th & Market Sts., Chester A. Scott, 5703 Girard Ave., John J. Shaw, 1701 Locust St., Glendon F. Sheppard, 1213 N. 54th St., Victor Sherman, 6155 Limekiln Pike, Vincent T. Shipley, 3642 Chestnut St., Edward I. Siegal, 526 Pine St., Melvin H. Smithgall, Drexel Hill, Edward R. Snader, Jr., 1601 Walnut St., Paul E. Stroup, 813 S. Third St., Frederick D. Stubbs, 1812 N. 11th St., John F. Stouffer, 214 S. 39th St., William H. Sullivan, 1601 South St., Louis N. Taine, 601 Parrish St., Fiore F. Trombetta, 918 Wolf St., R. Marshall Truitt, Jr., 740 Westview St., Gtn., J. Webb Vaughn, 5919 Cedar Ave., George L. Walker, 2336 S. 17th St., William H. Warrick, Jr., 124 W. Rittenhouse St., Charles H. Weber, 2048 Pine St., Emanuel M. Weinberger, 4536 York Road, William M. Welham, 1532 Snyder Ave., Omer W. Wheeler, Temple University Hospital, Dallas B. Wiggins, 1309 N. 15th St., Thomas A. Williams, Jr., 1238 N. 12th St., Marston T. Woodruff, 7712 Loretta Ave., George J.

Youell, 730 E. Allegheny Ave., William H. Ziegler, 3127 Frankford Ave., Charles J. Zinn, 4319 Manayunk Ave., Philadelphia. *Reinstated Members*—J. Wesley Anders, 1329 W. Somerset St., Enoch G. Klimas, 2538 E. Allegheny Ave., Meyer A. Cohen, 922 N. Orianna St., Henry S. Orloff, 1429 S. 4th St., Walter S. Lucas, 3204 Hathaway Lane, Wynnewood, Philip Weinstein, 539 W. Olney Ave., Valentine R. Manning, 800 E. Allegheny Ave., James H. Paul, 1516 Wolf St., Joseph A. Langbord, 2045 Spruce St., Wm. Charles Wood, 1930 Chestnut St., Joseph P. Garvey, 3607 Baring St., Robert S. Alston, 121 W. Walnut Lane, Gtn., Philadelphia. *Deaths*—Henry Artelt, Philadelphia (Univ. of Pa., '97), recently, age 65; John B. Carnett, Philadelphia (Univ. of Pa., '99), July, age 58; Theodore H. Weisenburg, Philadelphia (Univ. of Pa., '99), Aug. 3, age 58.

VENANGO: *Death*—Jacob P. Strayer, Oil City (Jeff. Med. Coll., '80), July 13, age 80.

COMMITTEE ON MEDICAL ECONOMICS

HOSPITAL GROUP INSURANCE— CLEVELAND PLAN

(See Page 949, August *Pennsylvania Medical Journal*)

It is difficult for the writer to conceive of any valuable benefits that the individual subscriber is to receive from this plan. To begin with, while the maximum of 21 hospital days during one year may serve by encouraging early hospitalization to minimize the development of more serious illness, it is hardly sufficient to protect the subscriber from the truly burdensome, catastrophic illnesses lasting often for months; inasmuch as the subscriber's family is excluded from the benefits, his chances of having to pay full rates for hospitalization are but slightly diminished.

Taking the very figure offered by the Cleveland Hospital Association as a guide, one can best prove the point. According to these figures the average annual hospital expectancy per individual is about 0.85 of a day. The insured is therefore called upon to pay more than twice his own annual hospital expense expectancy, furthermore, four-fifths of his own annual hospital expense expectancy, if we accept the standard family as 5 persons, he continues to carry himself.

The exclusion of maternity service is another drawback in this particular plan. Most of the other plans grant maternity service after the first 10 months of insurance, and it is difficult to understand why this particular plan excludes this service.

Again, the Fund pays too high a rate (\$4.50 *per diem*) for the ward service offered. Most hospitals of the country charge \$3.00 a day for ward patients, and \$4.50 for semiprivate patients. In the case of an insurance fund, where the hospitals are practically more certain of their income than from the individual patient, one would expect a lower instead of a higher rate.

It was explained to the writer that these charges were based on the average *per diem* cost per patient of the hospitals concerned, but it does not appear equitable to the writer to include the costs of the private room patients in the averages and charge them up to the ward patients as is done in this case.

There remains yet the question of the change of the status of the staff. Whether this is desirable or not depends on whether one is a hospital staff physician or not. The hospital staff physicians will probably look askance at an arrangement which throws the wards

open to nonstaffmen; but this, it must be admitted, is not a serious criticism, since at least that part of the profession which is not connected with hospitals will applaud this phase of the new development. The public will benefit, since exposure to staff doctors' forms of practice will help bring the "outside" physicians further abreast with medical progress.

Conclusions: 1. The Cleveland Hospital Group Insurance Plan will not materially help the average low income earning individual to meet the actual burden occasioned by his own or his family's so-called catastrophic illnesses.

2. It offers him *no* hospital protection for members of his family.

3. The premiums are probably too high, and thus at least partially serve as a profit producing measure for the hospitals.

4. It brings about some disruption of hospital staff organization.

MEDICAL SERVICE PLAN OF MICHIGAN STATE MEDICAL SOCIETY

Comments and Criticisms

There is a question in mind whether it is wise to include all the sickness services as does the Michigan Plan. It gives the layman the impression that the cost of the physician's service is very high, whereas the medical profession is to receive but 31 per cent of the total costs. True, propaganda can undo considerable of this misunderstanding, but it would probably be much more difficult to promote this plan on account of the inclusion of all these services. A good example is private nursing charges. Nursing, with the exception of proportionately few cases, and then only for short periods, is tantamount to a luxury. Who of us does not remember 1929, when the *nouveau riche* employed two nurses when but one was needed?

It is difficult to see how this plan would appeal to strictly rural populations. To begin with, no large industries are present; second, no high class medical facilities are available; and third, the same difficulties that beset the medical practitioner now would operate under this system as well. The population is too widely scattered to avail itself of many existing facilities, and the estimate of 1000 potentials would perhaps be too high for one practitioner to serve adequately.

The question of costs to defray the expense is covered in but a few words, merely referring to employer or employee. This paragraph is certainly extremely meager, and yet it constitutes the crux of the whole matter, namely,—who is to foot the bill? How do they expect the employer to participate in the project? This question was raised by several of the delegates at the session, and Nathan Sinai, who bore the brunt of the replies, was rather vague in his statement. He frankly admitted that he himself does not yet know what sales talk to use with the employers.

This brings up the whole question of the voluntary features of the plan. How much value will it have if this entire low-earning stratum refuses to come in? In that case the plan would be difficult of execution. The other alternative, of course, is compulsory health insurance, but then this goes contrary to the entire Michigan plan.

In the proposal to pay 75 per cent of the specialist's fee to those physicians and dentists who, in the opinion of the *Local Committee*, are qualified to render such service, the Committee strikes another snag. The en-

tire practically meaningless discussion by the Committee winds up with the statement that here is another way of control of sickness service being placed directly in the hands of the profession; and this at a time when control over specialization is being developed on a national scale in practically all the specialties. To place this decision in the hands of a local committee of a rural area certainly goes counter to the modern method of determining qualifications for specialization.

The hint thrown out on the question of the indigent is also not very definite or practical. I doubt very much whether the profession should entirely abandon its traditional view of the care of the chronic indigent. Certainly, it seems too much to expect the community to pay such high rates for the care of the indigent, let alone the fact that the community has no such funds at its disposal, especially since this is a complete departure from previous methods of dealing with this problem. The indigent problem is being met elsewhere by the profession charging reduced fees for services to the indigent, or by the indigent being taken care of by a salaried personnel.

PHILIP J. LUKENS, *Chairman*,
EDWARD L. BORTZ,
WALTER S. BRENHOLTZ,
MAX H. WEINBERG,
LEONARD G. REDDING.

County Society Reports

CHESTER

July 17, 1934

The meeting held at the Downingtown Women's Club took the form of a testimonial to those doctors in Chester County, not previously honored, who have been in practice more than 50 years. Dinner was served. President Howard B. Davis was toastmaster at the dinner and presided at the meeting. The following were honored: Henry F. C. Heagey, of Cochranville, who responded with many reminiscences and experiences of his 50 years' medical practice; John K. Evans, of Malvern, who spoke of the high ideals motivating the men in medical practice during the past half century. In the absence of the third honored guest, Thomas S. Richmond, of Guthriesville, Howard Y. Pennell very aptly made reference to the fine work of Dr. Richmond during the 50 years of his practice.

The Executive Committee is in sympathy with the plan of Robert T. Devereux for the publication, in pamphlet form, of the material used in the low cost nutrition program. Dr. Devereux has been asked to report further in this matter. The Executive Committee recommended that the society defer the matter of the appointment of a Workmen's Compensation Referee. This committee also assigned to the Public Relations Committee the matter of combating forces now active in favor of socialization of medicine. Trustee and Councilor Edgar S. Buyers outlined in detail facts leading up to the recommendation of a selection of a Workmen's Compensation Referee in each County. He urged the Chester County Society to join in this program. Camille J. Flotte, of Montgomery County, spoke of the activities in his county in this matter. After considerable discussion, the Society again voted to defer action in this matter until after the State Convention.

Louis Cohen, of Eagleville Sanatorium, read a paper on "Surgical Treatment of Pulmonary Tuberculosis."

Dr. Cohen reviewed the 4 methods of accomplishing compression therapy. These methods include artificial pneumothorax; thoracoplasty; phrenicotomy; and internal pneumolysis. In the treatment of pulmonary tuberculosis by surgery, Dr. Cohen particularly urged close coöperation between the chest surgeon, the internist, the roentgenologist, the gastro-enterologist, and the otolaryngologist. All treatment of pulmonary tuberculosis is concerned with the compression of an open lesion and all attempts at treatment are directed at this objective. Roentgenograms illustrating the various indications and results of compression therapy, were shown.

JOSEPH SCATTERGOOD, JR., *Reporter.*

FAYETTE

April 4, 1934

The meeting was held at the Medical Hall of the Uniontown Hospital with L. Dale Johnson presiding. John P. Griffith of Pittsburgh read a paper on "General Postoperative Complications." He said, in part:

1. Abdominal wound infections: Abdominal wounds are occasionally infected postoperatively because of the staphylococcus. Early diagnosis of the early beginning of infections is important. Care should be taken not to produce a tension anemia in suturing. In gross absolute infections it is usually best to leave the wound open.

2. Phlebitis: Symptoms of external vein inflammation renders the diagnosis of phlebitis easy; but if it is present in the pelvis, diagnosis is much more difficult. A slowing of the circulation plus trauma is believed usually to be the logical factor. The occurrence is oftener in adults, in that type of patient who is afraid to move after operation. Some surgeons believe the administration of 2 to 5 grains thyroid extract have aided materially in diminishing postoperative cases of phlebitis. General surgery is also advisable.

3. Embolism: This condition just seems to happen and very little can be done to prevent it. Many cases are believed to have some cardiac condition which has been overlooked previously.

4. Many doubtful postoperative deaths are renal in nature. Patients should be thoroughly studied preoperatively. The physician should not rely entirely upon the presence of albumin and casts. Glucose intravenously has been found to be very supporting in these cases.

5. Results of catheterization: Cystitis and prostatitis occasionally result. The bladder should not be allowed to become distended. Catheterization every 8 hours is a good routine with the instillation of one ounce of argyrol. Prostatitis is frequently aided by the administration of calcium gluconate.

6. Abdominal distention: Distinguish between distention of the stomach, distention of the bowels, and that due to diffuse renal output. The patient should not be disturbed too much by enemas and rectal tubes. There must be active peristalsis present to obtain the proper results from enemas. Occasionally it is better if the patient received a little food by mouth. No purgatives should be used.

7. It is very important to diagnose paralytic ileus and mechanical obstruction early. Paroxysmal pain with distention is usually caused by bands of adhesions. Progressive distention with continuous pain is usually caused by an abscess forming. This most often follows appendectomy with the presence of a slight elevation of temperature. Pitressin has been found to be bene-

ficial. The stomach tube should be used following stomach operations.

8. Diaphragmatic abscess is more common in patients with a ruptured ulcer or cases of appendiceal abscess.

9. Hiccup: Many surgeons believe this is caused by dehydration and that this condition should be treated accordingly.

10. Collapse of the lung occasionally follows operations. A mixture of 5 per cent oxygen and 95 per cent carbon dioxide is very beneficial. Many cases are due to plugging of the bronchus.

In discussion, Clark M. Luman stated that the greatest danger in surgery lies in procrastination and that many physicians are dishonest with themselves. Arthur E. Crow said that suture eschemia should be especially avoided in fat individuals. Gentleness is extremely important. There has been less kidney trouble in later years due to better postoperative treatment. Enemas are used after the second day. Elliott B. Edie discussed the mechanics of atelectasis and stressed the value of bronchoscopy with the artificial injection of air.

RALPH LIONEL COX, *Reporter.*

LEHIGH

July 10, 1934

The meeting was held at the Hotel Traylor; Frank S. Boyer presided. Francis F. Borzell, member of Medical Economics Committee of the Philadelphia County Medical Society, read a paper on "Health Insurance." He said in part:

The student of medical economics and the observer of the trends and tendencies in these later days toward all sorts or radical or abrupt changes in our social structure is struck by the widely divergent positions maintained by the medical profession on one hand and a certain group of economists, sociologists, and doctors of philosophy on the other. Reference is made especially to the subject of sickness insurance or health insurance, or group insurance—compulsory or voluntary. There is ample evidence that compulsory health insurance in whatever form, sooner or later becomes some form of state medicine. The urge for political advantage and the necessity for control and supervision soon manifests itself, and medical service ceases to be a sacred duty to suffering humanity, but a powerful tool of an avaricious political and industrial system.

An ideal state would be one in which medical service could be rendered freely and completely, unhampered by any thought of remuneration other than that which comes from a truly humanitarian service well performed. It is for this Utopia the sociologists would have us believe they are striving.

Why oppose so noble an experiment? The opposition and antagonism to all these schemes are based on one broad basic principle. The dream of socialized, mutualized, or regimented medicine or medical service is an idealism, a Utopian conception. To build such an idealistic state necessitates that the components of that structure so conform to the idealistic motif as completely to harmonize with the whole. The end product is the sum of its basic elements. An ideal social state cannot be built up from the unsocial, conglomerate mass of individuals now composing society, nor can it ever hope to be done until the day dawns that the lion shall lay down with the lamb and our swords shall be beaten into plowshares.

The elements that would compose such a state (socialized medicine) would be government, the lay citizen, and the medical profession. Can you visualize a government

manned by altruistic politicians? Can you, in this industrial age with the profit motive rampant, imagine a citizenry prepared to deal with only altruistic intent? Or can you even imagine a medical profession all of equal skill and all fully motivated by unselfish zeal, without some element of personal ambition?

We should recognize the fact that these idealists exist and in some instances are backed by wealth sufficient to make them formidable.

Is it not possible then to introduce some system that will at least approach the ideal, with a minimum of fault and that will be an improvement over our present status? This very natural question immediately suggests in turn another question. Is there a real demand for a change or reorganization? If so, from whence springs the demand?

We are compelled to credit the proponents of socialized medicine with intelligence at least equal to our own. They unquestionably realize the Utopian scope of their proposition. Therefore, knowing society is what it is, and knowing the illogical position they assume by their idealistic propositions, one naturally asks, why their persistence? Knowing full well that the structure they propose cannot at its completion even resemble the prospectus, what is their real objective?

This brings us squarely down to a consideration of unvarnished facts. The purpose of those bending their efforts to some form of compulsory health insurance is supposed to be:

I. Adequate medical service for all, having in mind particularly those in the lower income brackets.

II. Adequate financial return for the doctor.

They recognize the fact that the doctor is underpaid. A careful analysis of all schemes thus far presented fails to demonstrate any tangible improvement in the average doctor's income nor is there any improvement in the quality of health service nor lowering of morbidity rates over the periods preceding the installation of these systems. On the contrary, we can present evidence of the opposite. With this state of affairs known to the proponents of socialized medicine as well as to us, there must be other motives or excitations for the favorable agitation than their expressed objectives indicate.

Back of it all is an effort to maintain and perpetuate an industrial system that has proved itself to be inadequate for the maintenance of a fair economic existence.

A recent number of the *Bulletin of the American Medical Association* (April) entitled, "A Critical Analysis of Sickness Insurance" starts out with the statement,

"The various forms of social insurance are largely efforts to meet the uncertainties created by industrialism."

Also,

"However unemployment, old age, invalidity, accident, and sickness insurance may seem to differ, they are all essentially insurance against poverty, to which the particular happening is but a contributory cause."

The problem is not one of faulty distribution of medical services but insufficient incomes wherewith to meet these services.

The House of Delegates of the American Medical Association, in their last session at Cleveland, expressed the opinions of the major portion of the medical profession in no uncertain terms. It behooves the component state and county organizations to fall into line. In some states are excellent, highly efficient departments of medical economics; in others, praiseworthy activity on

the part of local counties without active coöperation from the state organization.

The situation is so acute that our state organization must be functioning fully for the reason that before long, legislation will be proposed looking toward state medicine. The Milbank Fund is committed to such a program and, in fact, Wm. H. Hopkins, F.R.S.A., Administrator, has stated within the last 6 or 8 months that an intensive program for state medicine by legislation action could accomplish its purpose in 18 months. This all means that the problem is no longer remote. It is here. It means that the logical battle front for the medical profession is the state society. The local organization can accomplish a great deal through the medium of personal contact, education, etc., but the actual offensive or defensive action in legislative matters must spring from the state society.

Unfortunately, the profession is not entirely a unit.

It would be well to keep in touch with the opposition by reading: *Survey, Survey Graphic*, The Milbank Fund publications, *Red Medicine* (Kinsburg), etc.

Dr. Borzell tried to indicate:

1. The false position maintained by the proponents of socialized or mutualized medicine in that their systems are all directed toward lowering the total income to the medical profession instead of raising it.

2. Every scheme or plan thus far tried has failed in every point insisted upon by the American Medical Association as the necessary requirements for the best type of medical service, and the maintenance of the professional standards long held sacred.

LYCOMING

Aug. 10, 1934

The annual outing was held at Larry's Creek Fish and Game Club. Dinner was followed by a short meeting in which two members were honored with the customary folder containing the autographs of the officers and members. James W. Ritter, of Jersey Shore, and William H. Follmer, of Williamsport, having practiced medicine for 50 years, were so honored. Both men responded. W. Wayne Babcock, of Philadelphia, was also an honored guest and gave a short greeting.

Lloyd E. Wurster then announced the organization of a medical credit bureau and explained its operation.

The entertainment was as follows: The Little German Band, quoits, shooting clay pigeons, cards, a thunder storm, and other items too numerous to mention.

The party adjourned between 4:00 and 5:00 p. m.

LARUE M. HOFFMAN, *Reporter*.

WASHINGTON

June 20, 1934

The meeting was held at 8 p. m., with President William J. L. McCullough, presiding.

The meeting was unusually interesting because of the reports of the American Medical Association meeting in Cleveland. James H. Corwin, of this county medical society, was a member of the House of Delegates. The highlights of the meeting in Cleveland were given by some of our members. Dr. Corwin stated that the House of Delegates keenly considered and appreciated medical economics of the present time. Larry D. Sargent reported on the cardiologic sessions, stating that digitalis should be guardedly given in toxic hearts. Clarence J. McCullough stated that in the scientific

exhibits he was unusually impressed with the charts demonstrating thorium instillation into the uterus, followed by roentgen-ray examination for diagnostic purposes, of especial value in cases of malignancies and other tumors. George W. Ramsey reported discussion as to cholesterol deposits in the walls of the blood vessels in arteriosclerosis, and that the main food elements contributing to this are milk and eggs. John B. McMurray, reporting on the ear sessions, was impressed by the report of the possibility of the administration of quinine in the treatment of malaria and induction of labor causing deafness, which has been traced to the use of that drug. Larry D. Sargent read a paper on "Gastric Neurosis," and said in part:

Gastric neurosis is a problem in which it is necessary to decide whether or not the patient is actually ill.

Nervous indigestion is the term used to designate all gastro-intestinal disturbances for which no organic cause can be found. It is to be assumed that examination of the patients presenting themselves under these circumstances has disclosed no disease. In other words we believe them to have only a hypersensitive condition of the gastro mechanism. Not only anatomical changes should be excluded but functional disturbances of the secretions and motility of the organ. Attention was called to the importance between the multitude of subjective complaints and the lack of objective findings in the stomach.

It is a clinical fact that anatomic lesions often exist for a long time without symptoms but sooner or later manifest the syndrome of a gastric neurosis.

Early arterial sclerotic disease of the stomach vessels, the gastric crises in tabes, and the disturbance of the solar plexus, ulcer, gallbladder, appendiceal and pancreatic affections should be considered as well as visceroptosis.

Ivy has advanced the concept that there is a cephalic, gastric, and intestinal aspect of the digestive cycle. If this is true a disturbance of any one may be responsible for many symptoms, and if we limit the investigation to the stomach alone we may be in error. The mental side of the patient's life should be studied closely. It is hard to deny that the mechanical drag of a visceroptosis can produce distress and it is in the asthenic patient that we expect to find both psychic and emotional instability associated with these mechanical defects. It is said that 90 per cent of all dyspeptics are psychoneurotic. The endocrine system is to be considered. Aerophagia, peristaltic unrest, rumination, anorexia or persistent vomiting may be the outstanding feature; the two latter conditions are as a rule characteristic features of the severer types of gastric neurosis.

Klein in an article has arranged the following classifications:

1. Cases of purely psychic origin, in other words the pure hypochondriacal type.
2. Cases neurotic in origin in which the defect has resulted from toxic substances, fatigue, infection, and trauma.
3. The psychoses with delusions in reference to the alimentary system. Environment plays an important part and if a psychic causation is discovered, the mechanism must be studied; at the same time it is necessary to investigate the physiologic changes as well.

It is necessary to divide again the gastric neurosis into what you might call the mild and the pernicious.

The mild cases with the feeling of epigastric fullness, pyrosis, palpitation, abdominal distention, dizziness and headache, weakness of memory, cold hands and feet, with anxiety relieved by the passage of flatus, or the belching of gas, the ribbon stools or hardened feces can

usually be corrected with the adjusting of the environment and getting control of the psychic elements. These patients fear certain foods, have many phobias, annoy every one and their home life is frequently ruined. The family becomes antagonized and this reacts and with such a vicious circle that the conditions are often rendered practically incurable. Do not tell these individuals they are suffering from an imagination, this is entirely wrong. The individual is weak in will, strongly influenced by emotion, cannot comprehend reason, and is often impatient and hard to hold. Confidence is of great importance and the most effective therapy is that which solves the psychic problem.

The mild cases are generally distinguished easily, and present symptoms which do not correspond to any real disease. In severe types the symptoms are much more stabilized. Roentgen-ray examination discloses nothing.

All ordinary methods of treatment in severe cases are generally unsuccessful and it is necessary at times to use drastic methods in order to produce the proper physical effect. Intubation of the jejunum is the recognized method of feeding; in severe types, using large quantities of peptonized milk, cream, and lactose and eggs. This feeding may have to be continued for a month or more and if inanition continues repetition is necessary. In some of the most severe cases jejunostomy has been done and kept open until recovery has occurred. Glucose by vein, skin, or rectum may have to be used.

The discussion may be epitomized as follows: Before making a diagnosis of gastric neurosis, one should be sure that there is not some distant pathology that reflexly involves the nerve innervation of the stomach; and that these cases should not be held lightly by the practitioner because it seriously interferes with the health, happiness, and livelihood of the individual affected. Only with thoroughness in care and firmness in advice can the best results be accomplished.

SAMUEL A. RUBEN, *Reporter.*

FOURTH COUNCILOR DISTRICT MEETING

The meeting of the Fourth Councilor District was held at Forrest Inn, Eagles Mere, July 18, 1934; 173 physicians and their families were present.

The meeting was conducted by District Councilor E. Roger Samuel, of Mount Carmel. President Donald Guthrie, of Sayre, spoke on several matters pertaining to Public Health Legislation. President-elect Moses Behrend, of Philadelphia, gave a discourse in regard to the Workmen's Compensation Act.

The following district censors made reports: John M. Higgins, Bradford County; J. Elmer Shuman, Columbia County; J. Allen Jackson, Montour County; Robert B. McCay, Northumberland County; Franklin A. Stiles, Susquehanna County; and, William W. Lazarus, Wyoming County. The reports of the censors show the district to be in a flourishing condition, all counties having held excellent and interesting meetings during the year. The membership of the district was increased and all committees were very active.

The following papers were read: "Appendicitis Mortality," by John O. Bower, of Philadelphia, chairman of the State Society Committee on Appendicitis Mortality. (The discussion on this paper was opened by Joseph P. Replogle, of Johnstown, a member of the same committee.) "The Early Stages of Mental Disorders—A Challenge," by J. Allen Jackson, of Danville, chairman of the State Society Committee on Mental Hygiene.

Dr. Jackson stressed the need of each county medical society appointing a subcommittee to their public health committee to be known as the Committee on Mental Hygiene. "Diseases of the Biliary Duct Apparatus," by Arthur M. Shipley, professor of surgery, University of Maryland School of Medicine.

Lunchon was served.

The Woman's Auxiliary also met at Forrest Inn, Mrs. Henry F. Hunt, councilor of the Fourth Councilor District, presiding. Among the speakers were Mrs. Walter S. Brenholtz; Mrs. Edward Lyon, president of the Woman's Auxiliary to State Medical Society; Mrs. L. D. Sargent, president-elect, State Auxiliary. Reports were presented by secretaries of organized auxiliaries of the Fourth Councilor District. President Donald Guthrie, and President-elect Moses Behrend of the State Medical Society also addressed the meeting.

ANNUAL MEETING OF THE WEST SECTION OF THE FIFTH COUNCILOR DISTRICT

The twenty-eighth annual meeting of the West Section of the Fifth Councilor District of The Medical Society of the State of Pennsylvania was held July 19, 1934, at Graeffenberg Inn, Franklin County, President Samuel D. Shull, of Chambersburg, presiding.

President Donald Guthrie, of the State Medical Society, discussed State Legislation, State Emergency Relief Work, and postgraduate medical instruction by means of extension courses from the various medical schools of the State.

State Trustee George C. Yeager, of Philadelphia, spoke on "State Medicine and the Costs of Medical Care."

B. Franklin Royer, of Philadelphia, associated with the activities incident to State Emergency Medical Relief, spoke on the supervision of child health in the County Relief Program.

Howard K. Petry, of Warren, a member of the Committee on Mental Hygiene of the State Society, gave a talk on "Early States of Mental Disorders—A Challenge."

Censors' reports of the various county societies were made by Ambrose W. Thrush, Franklin County; Selden S. Cowell, Cumberland County; Roy Gifford, Adams County; Louis S. Weaver, York County, David S. Funk, Dauphin County.

Papers were read by the following: Donald Guthrie, "The Cardinal Symptoms of Duodenal Ulcer"; John O. Bower, Philadelphia, chairman of the Committee on Appendicitis Mortality of the State Society, "Reducing the Mortality from Appendicitis"; District Councilor Clarence R. Phillips, of Harrisburg, discussed "State Legislation as Applied to Medicine."

The following officers were elected: President, Eugene Elgin, Adams County; first vice-president, W. Frank Gemmill, York County; second vice-president, S. Dana Sutliff, Cumberland County; third vice-president, Ira M. Henderson, Adams County; fourth vice-president, Earl Glatfely, Franklin County; secretary, W. Newton Long, York County; treasurer, John F. Bacon, York County.

Dinner was served to 84 members and their families. W. NEWTON LONG, *Secretary*.

SEVENTH COUNCILOR DISTRICT MEETING

The meeting was held at the Williamsport Country Club, July 11, 1934, preceded by a luncheon at 1:30

p. m. President-elect Moses Behrend, of the State Medical Society, talked on Workmen's Compensation. He urged the doctors to become legislative-conscious. The State Society needs the assistance of every doctor on medical legislation, such as proposed health insurance, *etc.* It is important to be well informed because of proposed legislation from the cults. Read your JOURNAL.

In the matter of workmen's compensation laws the doctor is an interested party. The question will come up whether the patient shall have limited choice of physician. The insurance companies are against free choice. In New York all physicians are enrolled for this work according to their ability. The practitioner should get written consent of employer and patient to treat a compensation case. He should be able to treat 70 per cent of their cases. The time of hospitalization is limited to 30 days in this State. Many need more time. This situation works a hardship on both doctor and hospital. The set maximum fee of \$100 should also be made more elastic. We as an organization must safeguard against the dishonest doctor, through operation of a committee of arbitration.

Health insurance is controlled by a powerful lobby in Harrisburg which should be broken down. There should be a set-up in each county to fight this lobby.

State Secretary Walter F. Donaldson stated that there are more members in good State standing today than there were two years ago. The Society needs the interest as well as the dues of the members. The doctors should have a united front in public health legislation. Compulsory health insurance will be brought up at the next legislature, fortified by funds and propaganda. The profession should be in sympathy with health insurance in so far as it protects the wage earner. Remember that our clientele knows nothing about health insurance.

Emil Novak, associate professor of gynecology at Johns Hopkins University Medical School, gave an address on "Some Functional Gynecological Problems"; and said in part:

More and more gynecologic problems are being recognized as functional. The gynecologist who takes no stock in endocrinology is a purely mechanical surgeon. It is not entirely a matter of organotherapy and no rule of thumb can be followed in endocrine therapy. It is important for the practitioner to know the normal part played by the endocrine system in the physiology of the body.

As applied to menstruation the present day concept is that just at the end of the menstrual cycle a new follicle begins to develop in the ovary. One outstrips all the others and becomes dominant, reaching its fullest size about one-half way between the beginning and end of the cycle. In its development it produces more and more folliculin, or theelin, which brings about increasing growth and hyperemia of the uterine mucosa. About the thirteenth or fourteenth day the follicle ruptures, after which the shell becomes larger and develops into the corpus luteum which gives off more folliculin and produces its own secretion which is called progesterin and which causes the secretory activity in the endometrium. Folliculin alone cannot produce the complete cycle. If we could give the amenorrheic patient progesterin we could give her a complete cycle. It has been done experimentally but it took huge doses. Progesterin is not yet manufactured for commercial uses. Folliculin is found in the urine of pregnant women, in the amniotic fluid of women, cattle, and other animals and in some tuberous plants, *etc.* The actual bleeding is due to a sudden drop in the level of folliculin, which also ac-

counts for functional bleeding at times. At or near puberty and menopause sometimes the follicle persists, getting larger and larger, the endometrium becoming more and more congested, until the follicle exerts an inhibiting effect upon the anterior pituitary, when there is a bleeding phase which may be prolonged. If we had a corpus luteum hormone we could help this bleeding. The egg does not live more than 24 to 36 hours and must become impregnated in that time or not at all. Spermatozoa are active only 2 or 3 days. In cases of sterility, patients are most likely to conceive between the eighth and eighteenth day. In monkeys and other lower animals the egg is not given off during seasonal periods. The same is true of some women at times, which accounts for sterility even though she may seemingly menstruate, for this bleeding is not true menstruation. This is especially true in the 2 extremes of sex life and this type of sterility should be diagnosed by staining a eurette piece of endometrium for secretory glands just before menstruation. If these glands are absent there is no corpus luteum.

The function of the anterior pituitary in the sexual cycle was demonstrated by investigators who implanted pituitary tissue in the thighs of monkeys before they reached puberty. These animals developed sexually by leaps and bounds. The anterior pituitary elaborates besides a growth hormone a lactating hormone called prolactin and a hormone which makes possible the ripening of the follicle called prolan A and one which brings about the formation of the yellow corpus luteum cells, called prolan B. In pregnancy there is a tremendous increase in prolactin production, some of which is secreted in the urine and makes possible the Aschheim-Zondek test for pregnancy. It can be seen from these facts why anterior pituitary is useful in some cases of uterine bleeding. Folliculin has no stimulating effect on the ovaries. It is only a substitute.

Harvey Smith, of Harrisburg, read a paper on "Mortality Rate of Appendicitis." He stated that 35 years ago the literature teemed with articles on appendicitis, which was then a novelty. Catch phrases were invented, such as "Purgation spells perforation," and "Expectant treatment means expectant necropsy." Appendectomy became as common as tonsillectomy. Appendicitis mortality dropped. Since those days the pendulum has swung back. Some doctors seriously question the diagnosis of chronic appendicitis. Operation has become perhaps less frequent and now we are facing a rising mortality.

Appendicitis is the best known of all diseases to the layman. It does not always follow the ordinary course, with the result that some cases come to operation so late that they tax the resources of an expert surgeon. The diagnosis is clear cut in the presence of all the cardinal symptoms and progresses and regresses slowly. Only 50 per cent have all the cardinal symptoms. Pain is the most constant symptom; rigidity and tenderness next. Severe pain demands prompt action. Some patients have a sudden onset, vomiting; no temperature or localized tenderness. A large percentage of deaths come in this group. Rigidity is seen in 75 per cent of cases. It is obscured in the fat abdomen and if the appendix is behind the colon. A rectal examination will often diagnose these cases. Maximum temperature and white blood count are variable. The temperature ranges from 99° to 100° F. Leukocyte count is of value if above 10,000 but an appendix may rupture before it reaches that figure. Dr. Smith gave some statistics covering a short period in the Harrisburg Hospital. In 18 months there were 244 patients with appendicitis

of whom 16 died. Two were under age 10 and both were given cathartics by their doctors. There is difficulty in diagnosing appendicitis in children because of a poor history and other possible causes of pain. Pain and rigidity are the best signs and rectal examination is very helpful. Diagnosis should be easy in young adults. Seven of the 16 cases were in persons over age 45. All were treated for years for varying ailments. Four traveled from doctor to doctor without diagnosis. Two were treated for bladder trouble. In persons of this age with abdominal pain there should always be a complete physical examination, and an abdominal operation if other conditions can not be eliminated. The exploration should be done through an adequate incision. Some doctors are on the job, others never make an early diagnosis; 8 of the deaths were attributed to the latter type of doctor. Any abdominal pain lasting more than 6 hours should be a case for a surgeon.

Harold A. Miller, director, State Emergency Relief Board, stated that the practice of medicine has launched into a social phase. It touches all who are engaged in health care. In June, 1933, it was decided that federal funds might be applied to medical care of those on relief. One cannot anticipate the amount of medical relief needed in advance. Some look upon the physician-patient relationship as outgrown. A comparison of rates in this State and in others is as follows:

	Office	House	Obstetrical Inst.	Obst.
Minimum . . .	\$0.50	\$1.00	\$10	\$10
Maximum ..	1.25	3.50	30	50
Pennsylvania	1.00	2.00	20	20

Medical relief is a small part of emergency relief. If funds are gone medical relief must sink into the back-ground until more funds are obtained. Some doctors treat their patients first and then try to put them on the relief. On the administrative side of the problem some doctors are campaigning to secure another man's patient by political influence, *etc.* The organization and control are in the hands of the profession. On the whole the response has been very good. The questions concerning health matters should be under the control of the profession. Health matters as well as discipline. The economic side should be left to the Social Service Bureau. A second side of this program deals with child survey work; the third side is the works division, which began with the C. W. A. as a trial balloon. Now the works division of each state is beginning to take up the load. Pennsylvania will have 300,000 laborers in the next year and will thereby become the largest employer of labor in the State. There will be accidents because of untrained men, *etc.* To maintain the physician-patient relation a medical referee will be appointed, who will receive compensation in proportion to the relief load of the county in which he lives. The minimum will be \$10 a month. He will be the arbitrator of that county and each doctor should signify the type of work he wishes to do. The referee can lift a case from a doctor who is incompetent. There will be no 30-day limit in these cases, as in workmen's compensation, and the reissuing of an order can be made. After a patient is disabled he will be returned to the relief rolls. The transient division has taken care of 8000 men and women who received typhoid and smallpox vaccines, urinalysis, physical examination, *etc.* Dr. Miller stressed the need of coöperation.

George L. Laverty, chairman of the State Advisory Committee, pointed out that workmen's compensation, begun in this country in 1915, is the first form of state

medicine. Unemployment relief is only 6 months old. The estimated financial outlay per month has been exceeded every month. In one county of the State, 89 per cent of the work done is in the home of patients. In that county the outlay for medical relief was increased 3 fold, from February to June. There was an average cost for prescriptions of \$2.21 and 42 were written in one case. There is only one recourse to prevent abuse of our privilege; that is removal of men from the participating group.

LARUE M. HOFFMAN, *Reporter.*

MEETING OF THE EIGHTH COUNCILOR DISTRICT

The meeting of the Eighth Councilor District was held, Aug. 15, 1934, at the Hotel Bartlet, Cambridge Springs, with a representative attendance of 80; unfortunately the younger members of the district were conspicuous by their absence. At the luncheon, District Councilor George A. Reed, of Erie, acted as toastmaster. Certificates were presented to the following members of the district who had been practicing over 50 years: George E. Benninghoff, McKean County (55 years); Allen A. Van Slyke, McKean County (52 years); Robert M. Hope, Mercer County (60 years); Philip P. Fisher, Mercer County (52 years); Henry H. Foringer, Erie County (52 years); Robert W. Clark, Crawford County (50 years); and, J. Russell Mosier, Crawford County (51 years). The afternoon meeting was presided over by District Councilor George A. Reed.

Maxwell Lick, a member of the State Society Committee on Appendicitis Mortality, made an urgent appeal to the importance of careful and early diagnosis of appendicitis.

Chauncey L. Palmer, chairman of the State Society Public Health Legislation Committee, urged the profession to activity in contacting the legislators concerning proposed medical and health legislation. Dr. Stark, a member of the committee, amplified the discussion. William H. Mayer spoke on the activities of the State Society Committee on Public Relations and P. E. Biggins discussed the paper. Max H. Weinberg, member of the State Society Committee on Medical Economics, spoke on corrective plans and the activities of his committee, followed by a discussion by representatives of the State Pharmaceutical Society by Mr. Andrew Heyl, and the State Dental Association by Dr. Semple, and a representative of the State Nurses' Association. Moses Behrend, president-elect of the State Society, stressed the need for contacting the candidates for the legislature as did also Walter F. Donaldson, secretary of the State Society, and Trustee and Councilor Robert L. Anderson, of the tenth councilor district.

MEETING OF THE TENTH COUNCILOR DISTRICT

The Tenth Councilor District meeting and the Annual Clinical Sessions of Westmoreland County Medical Society, were held May 3, 1934, at Greensburg. The following papers were read at meeting held at the Westmoreland Hospital in the morning. "Focal Infection in the Pathogenesis of Ocular Pathology," John W. Fairing, Greensburg; "Gastric Neuroses," Larry D. Sargent, Washington; "The Management of Syphilis in General Practice," William H. Guy, Pittsburgh; "The Early Diagnosis of Intestinal Obstruction," Donald W.

Guthrie, Sayre; "The Toxic Thyroid Patient One Year After Operation," William S. Wheeling, Windber; "The Medical Management of Gallbladder Disease," William G. Falconer, Clearfield. Luncheon was served at the hospital.

Dr. Fairing said in part:

The consensus of opinion favors the theory of elective affinity or the influence of distal foci of infection in the etiology of ocular diseases in many cases. It may be as Pemberton suggests that there possibly is an initial systemic factor antedating infective foci and sensitizing the individual to their toxins. It cannot be denied, however, that in the effort to save the patient from the threat of blindness or serious visual impairment many unnecessary operations have been performed on teeth, tonsils, prostate and other organs suspected of harboring primary foci of infection.

That there is a lack of uniformity in results of attempted elimination of foci of infection cannot be gainsaid. Therefore, there must be, in suspected cases, painstaking cooperation with the internist, otolaryngologist, dentist, roentgenologist, and ophthalmologist, for as Pelouze well says, "the focal infective picture usually comprises more than attention to the foci of infection alone. Back of it there usually is a patient needing careful medical attention."

The writer looks to various exceptions and the exercise of reasonable doubt before recourse to surgery and yet the large number of cases of improvement of ocular disease after operation for the removal of the infective foci points to a casual relationship.

With especial reference to the visual mechanism, secondary foci of infection may be established when bacterial embolus from the primary focus is deposited from the blood stream into the tissues of the eye and into the sheath of the optic nerve. It is theory that "toxins alone may infiltrate the tissues from lymph channels for a variable distance." It is furthermore supposed that "the toxic lymph without organisms, may cause focal inflammation in sensitive tissue," or, some organism or toxin may attack only a specific tissue, by elective affinity.

The retina tells the tale of many distant affections, and other eye changes due to manifestations elsewhere in the body have been demonstrated by various clinicians.

The frequency of occurrences of lesions about the ciliary body, or iris, needs special emphasis.

The mouth is the entrance portal of many infections via the teeth into the adjacent vascular tissues, and lymph capillaries. Through infected pulp, the eye may be frequently headed for disaster unless the infective focus is eliminated. Carious cavities and gingival pus pockets drain through the lymph channels to the blood stream.

In 52 out of 53 cases of ocular pathology due to oral sepsis, studied by Levy at the Herman Knapp Memorial Hospital, the affected eye was on the same side as the infection in the mouth. This circumstance leads to the belief that the infection is not always transmitted through the blood stream, otherwise more cases of infection in the opposite eye would be found. It was concluded that the infection is lymphogenous, or may even be conveyed through the osseous channels. It is likewise possible that the infection can be transmitted along the nerves, in addition to subperiosteal and osseous channels.

In the 22 cases which Wulkow lists, half of them are cases of iritis which quickly healed following the removal of dental infection.

Richter has noted a woman blind for several years who regained her sight after a tooth was extracted. Other similar cases have been reported.

The importance of oral sepsis is demonstrated, and one should search for pyorrhea, blind abscesses, apical abscesses, decayed or dead teeth and other infections of the mouth.

Uveitis in whole, or, in part, localized retinochoroiditis and retrobulbar neuritis are the ocular diseases most frequently accompanying focal infection in near or remote areas.

Conjunctivitis and keratitis may be exogenous if related to a chronic suppurating lacrimal sac (dacryocystitis); endogenous if related to foci of infection in teeth, tonsils, sinuses, etc.

The affinity between teeth and tonsils and the anterior segment of the eye is clinically well established and the rôle of infected tonsils and sinuses is equally well established in many cases of nonsyphilitic and nontuberculous chorioretinitis and retrobulbar neuritis.

Syphilis has a special affinity for the uvea, choroid, retina, and optic nerve. Tuberculosis for the conjunctiva, uvea, and retina. Syphilis should not be the final diagnosis because of a positive Wassermann reaction; nor should it be concluded that the process is tuberculous on account of tuberculin reaction. Teeth, tonsils, and sinuses may be responsible for continuance of ocular pathology that in syphilitic or tuberculous cases does not respond to routine specific therapy.

In sinusitis the character and location of the pain (if present) is a guide to the sinus involved. A purulent sinusitis is seldom the cause of ocular involvement. The concealed type is more toxic, because in the purulent type the infection is walled off by a thickened mucous membrane.

The prostate and the cervix may be potential foci of

infection in ocular pathology. In women, there are cases of scleritis and sclerosing keratitis observed quite regularly. As the cervix of the uterus becomes congested, a bacterial relationship is established with the eye. At the Mayo Foundation, cultures were made from the secretion around the cervix, vaccine prepared and administered, resulting in subsidence of ocular inflammation. In the male, prostatitis may cause metastatic lesions in the eye.

Pelouze states that "the male focal infective triad is teeth, tonsils, and prostate gland" and enjoins that great care should be taken (when massaging the gland) in the presence of iritis, or, ulcerative keratitis not to cause a dangerously severe reaction in these ocular tissues.

Metastasis from tumors (carcinoma) of the breast, lung, stomach, and kidney, affecting the uvea and the choroid is well authenticated.

In optic neuritis, if other causative factors are absent or not determined, exploration of the sinuses, especially the sphenoid and posterior ethmoids, is in order and should be done promptly if atrophy, which supervenes in from two to three weeks, is to be prevented. Dimness of vision, enlargement of the blind spot, contraction of fields, central scotoma for form and color, are presented. The ophthalmoscopic picture may be negative as in acute cases of retrobulbar retinitis.

The Tenth Councilor District Meeting was held at the hospital in the afternoon, District Councilor Robert L. Anderson, Pittsburgh, presiding at a meeting held at the Armory, cases were presented by Dean Lewis, and John T. King, Jr., Baltimore, Md. A business meeting of officers and councilors of the Tenth Councilor District was held at the Penn Albert Hotel. The banquet was held at the Greensburg Country Club.

JOHN C. PROTHERO, *Reporter.*

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

THE TENTH ANNUAL CONVENTION

In this issue of the JOURNAL is published the completed plans of Mrs. Charles H. Miner and her Committees for your entertainment at the State Convention to be held in Wilkes-Barre from Oct. 1 to Oct. 4, 1934.

Every member of the Luzerne County Auxiliary, of which Mrs. C. W. Prevost is president, has given unsparingly of her time and effort in order to insure the success of these four days of entertainment and further wishes to extend a cordial invitation to the convention.

HELEN HALL (MRS. V. P.) EDWARDS,
Chairman, Convention Publicity.

PROGRAM

THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Tenth Annual Session, Wilkes-Barre

October 1-4, 1934

Headquarters: First Presbyterian Church House
Monday, October 1

6:30 p. m. State Executive Board Dinner.
Place: Wyoming Valley Woman's Club House.

Subscription: \$1.50. Send reservations to Mrs. Edward W. Bixby, 292 South Franklin Street, Wilkes-Barre, by Sept. 25, 1934.

7:30 p. m. State Executive Board Meeting.

Tuesday, October 2

- 9:00 a.m. General Meeting at First Presbyterian Church House, Franklin St., Wilkes-Barre; Mrs. Edward Lyon presiding.
- 12:30 p.m. The Luzerne County Auxiliary will entertain visiting members of the State Auxiliary at luncheon at the Irem Temple Country Club in honor of Mrs. Edward Lyon, State President. Toastmaster: Mrs. W. Burrill Odenatt. Speakers: Mrs. W. Wayne Babcock, Dr. Moses Behrend, Dr. Donald Guthrie. Guests: Dr. William E. Parke, Dr. Walter S. Brenholtz, Dr. Lewis T. Buckman, Dr. Arthur Gross, Dr. Frederick Bishop, Dr. Walter F. Donaldson, Dr. Peter P. Mayock, Dr. Edward W. Bixby.
- 2:00 p.m. General Meeting.
Place: Irem Temple Country Club; Mrs. Edward Lyon presiding.
- 6:30 p.m. Auxiliary Dinner.
Place: Wilkes-Barre Institute, Wyoming Avenue, Forty Fort, in honor of past state presidents. Toastmaster: Mrs. Augustus S. Kech. Immediately following the dinner there will be a play presented by the Little Theater. Subscription: \$2.00 (covers both dinner and play).

Wednesday, October 3

- 9:00 a.m. General Meeting, First Presbyterian Church House, S. Franklin St., Wilkes-Barre; Mrs. Edward Lyon presiding.
- 12:30 p.m. Box luncheon at Kirby Health Center followed by an exhibition tour of the Health Center. Subscription \$0.70.
- 4:00 p.m.-6:00 p.m. Reception and tea at Mrs. W. H. Conyngham's country home, Hillside.
- 7:45 p.m. Public Meeting. Auditorium, Irem Temple.
- 9:30 p.m. President's Reception and Ball.
Place: Hotel Mallow-Sterling, Wilkes-Barre.

Thursday, October 4

- 9:00 a.m. Post-Convention Executive Board Meeting.
Place: First Presbyterian Church House, S. Franklin St., Wilkes-Barre; Mrs. L. D. Sargent presiding.
- 10:00 a.m. General Meeting and Adjournment.

N. B.—When registering please state if transportation is necessary for out-of-town entertainments.

THE WILKES-BARRE CONVENTION

Prepare for the Annual Convention to be held in Wilkes-Barre in October. It is hoped that each Auxiliary in the State will send a large delegation to this Convention, and members will be interested in the minutes of the last Convention which are here given.

MINUTES OF THE NINTH ANNUAL CONVENTION OF THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

The opening meeting was held in the Red Room of the Bellevue-Stratford Hotel, Philadelphia, at 9:00 a.m., with Mrs. Augustus S. Kech, president, in the chair.

The meeting was opened with the singing of "America," directed by Mrs. William Clyde Decker. Invocation was given by Rev. Alexander MacColl, D.D., Second Presbyterian Church, Philadelphia.

A short but impressive "In Memoriam Service" was given, with Mrs. Wilmer Krusen in charge. A list of deceased members, as compiled by the District Councilors, was read by Mrs. Krusen. Mrs. Tomlinson, president-elect of the Woman's Auxiliary to the American Medical Association, rendered a fitting tribute to Corinne Keen Freeman, our late National President. Lena Bricker sang "Crossing the Bar," accompanied by Rebecca Wallenbeck Walker. The audience then stood for one minute of reverent silence.

Dr. Walter S. Cornell, president, Philadelphia County Medical Society, gave the address of welcome. Mrs. Joseph J. Meyer, acting recording secretary, responded on behalf of the auxiliary.

A report on Credentials and Registration was given by Mrs. R. Powers Wilkinson as follows: Executive board members, 23; delegates, 46; alternates, 22; auxiliary members, 153; guests, 26; total, 270.

There being the requisite number of delegates present, the President announced the Convention open to business.

A motion was made by Mrs. Sargent and seconded by Mrs. Shaffer that the reading of the minutes be dispensed with as they had been printed in the JOURNAL. Motion carried.

Announcements concerning convention arrangements were made by Mrs. W. Burrill Odenatt, convention chairman.

Mrs. M. J. Noone, chairman, Nominating Committee, announced that the ballot was posted in the rear of the room.

A motion was made by Mrs. Odenatt and seconded by Mrs. Phillips that a message of sympathy be sent to Mrs. McCullough. Motion carried.

There being no further business, the meeting adjourned to permit attendance at the opening meeting of the State Medical Society.

Tuesday Afternoon, Oct. 3, 1933

A meeting of the Woman's Auxiliary was held Tuesday, Oct. 3, 1933, in the Red Room of the Bellevue-Stratford Hotel at 2:00 p.m., Mrs. Augustus S. Kech, president, in the chair.

The address of welcome was given by Mrs. Fielding Otis Lewis, president, Philadelphia County Auxiliary. Mrs. Charles G. Eicher, responded.

A motion was made by Mrs. Thomas and seconded by Mrs. Brallier that the reading of the minutes of the previous meeting be dispensed with. Motion carried.

The secretary then called the roll of the county auxiliaries. Thirty-three counties reported representatives present. A motion was made by Mrs. Sargent and seconded by Mrs. Brallier that the National Convention Report be presented at this time by Mrs. Thomas, reversing the order of business so that the president might rest her voice. Motion carried.

A splendid report of the National Convention at Milwaukee was given by Mrs. David H. Thomas.

Reports were given by the following officers: Mrs. Frank Keagy, corresponding secretary—read by Mrs. Joseph J. Meyer, acting recording secretary; Mrs. J. Armin Stackhouse, recording secretary—read by Mrs. Joseph J. Meyer, acting recording secretary; Mrs. J. W. Shaffer, treasurer. A motion was made by Mrs. Ludwig and seconded by Mrs. Sargent that these reports be accepted with thanks and filed. Motion carried.

The auditor's report was read by Mrs. Joseph J. Meyer. A motion was made by Mrs. E. Kirby Lawson and seconded by Mrs. Brallier that the auditor's report be accepted. Motion carried.

Reports were given by the following committee chairmen:

Archives	Mrs. David B. Ludwig
By-laws	Mrs. W. Wayne Babcock
Hygeia	Mrs. John T. Herr
District Councilor	Mrs. Andrew Benson
	(read by Mrs. Doane)
Legislative	Mrs. E. Kirby Lawson
Periodic Health Examination	Mrs. David W. Thomas
Public Relations	Mrs. Robert H. Jeffrey
	(read by Mrs. Doane)
Public Health Education	Mrs. Joseph J. Meyer
Publicity	Mrs. Wilmer Krusen

A motion was made by Mrs. Phillips and seconded by Mrs. Shaffer that the above reports be accepted with thanks and filed. Motion carried.

The report of Mrs. John F. McCullough of the Budget Committee was read by Mrs. Phillips. A motion was made by Mrs. Krusen and seconded by Mrs. Brallier that this report be accepted as read. Motion carried.

There being no further business, the meeting was adjourned.

Wednesday Morning, Oct. 4, 1933

A general meeting of the Woman's Auxiliary was held at 9:00 a. m. on Wednesday, Oct. 4, 1933, in the Red Room of the Bellevue-Stratford Hotel, Mrs. Augustus S. Kech, president, Mrs. Joseph J. Meyer, acting recording secretary.

A motion was made by Mrs. Eicher and seconded by Mrs. Thomas that the reading of the minutes of the previous meeting be dispensed with. Motion carried.

As an innovation this year, Mrs. Frank Keagy, corresponding secretary, compiled one single report from the county reports and this was read by Mrs. Joseph J. Meyer.

According to the reversed order of business, Mrs. Kech gave the President's Address at this time.

It was moved by Mrs. Lyon and seconded by Mrs. Smith that these two reports be accepted with thanks. Motion carried.

A report of the Committee on Resolutions, Mrs. William H. Howell, chairman, was given by Mrs. Brallier. A motion was made by Mrs. Phillips and seconded by Mrs. Greisemer that these resolutions be accepted. Motion carried.

A report of the Committee on Credentials and Registration was given by Mrs. R. Powers Wilkinson, chairman, as follows: executive board, 23; delegates, 73; alternates, 40; auxiliary members, 316; guests, 89; total, 541.

According to the Constitution and By-Laws and the paid-up membership, six delegates to the National Convention are to be elected at this time. The following were nominated from the floor:

Mrs. Edgar S. Buyers	Montgomery
Mrs. R. R. Schultz	Lackawanna
Mrs. L. E. Wurster	Lycoming
Mrs. Dana Sutliff	Franklin
Mrs. William Krick	Berks
Mrs. F. B. Krimmel	Erie
Mrs. William E. Parke	Philadelphia
Mrs. Howard Mellor	Chester
Mrs. S. A. E. Brallier	Cambria

A motion was made by Mrs. Campbell and seconded by Mrs. Thomas that the nominations be closed. Motion carried. Mrs. John Galbraith, Mrs. Charles G. Eicher, and Mrs. W. Eugenc Delaney were appointed as tellers.

Delegates elected to the National Convention are:

Mrs. Edgar S. Buyers	Montgomery	62
Mrs. William E. Parke	Philadelphia	54
Mrs. R. R. Schultz	Lackawanna	46
Mrs. William Krick	Berks	41
Mrs. Dana Sutliff	Franklin	39
Mrs. L. E. Wurster	Lycoming	37

A report of the Nominating Committee was given by Mrs. M. J. Noone, submitting the following names:

President-elect—Mrs. L. D. Sargent. A motion was made by Mrs. Lawson and seconded by Mrs. Brallier that nominations be closed. Motion carried.

First Vice President—Mrs. W. Burrill Odenatt. A motion was made by Mrs. Page and seconded by Mrs. Ludwig that nominations be closed. Motion carried.

Second Vice President—Mrs. F. F. Arndt. A motion was made by Mrs. Brallier and seconded by Mrs. Hunsberger that nominations be closed. Motion carried.

Third Vice President—Mrs. John R. Davies. A motion was made by Mrs. Brenholtz and seconded by Mrs. Thomas that nominations be closed. Motion carried.

Recording Secretary—Mrs. Joseph J. Meyer. A motion was made by Mrs. Brallier and seconded by Mrs. Stark that nominations be closed. Motion carried.

Treasurer—Mrs. J. W. Shaffer. A motion was made by Mrs. Lawson and seconded by Mrs. Greisemer that nominations be closed. Motion carried. (Mrs. Wilkinson took the chair.)

Director—Mrs. Augustus S. Kech. A motion was made by Mrs. Page and seconded by Mrs. Brallier that nominations be closed. Motion carried. (Mrs. Kech resumed chair.)

Director—Mrs. Fielding Otis Lewis. A motion was made by Mrs. Lyon and seconded by Mrs. Johnston that nominations be closed. Motion carried.

Director—Mrs. Howard C. Frontz. A motion was made by Mrs. Campbell and seconded by Mrs. Shaffer that nominations be closed. Motion carried.

A motion was made by Mrs. Ludwig and seconded by Mrs. Dwyer that the secretary cast the ballot and the above officers be declared elected. Motion carried.

The officers were installed by Mrs. Kech at the request of Mrs. Lyon.

Dr. Morris Fishbein then gave a very interesting talk concerning the work of organized medicine and the work of the Woman's Auxliary to the American Medical Association in the field of organized medicine.

Mrs. Augustus S. Kech presented the gavel to Mrs. Edward Lyon, the new president, with best wishes for a successful year. Mrs. Lyon gave a brief outline of her plans for the coming year.

There being no further business the meeting was adjourned.

Executive Board Meeting, Oct. 5, 1933

A State Executive Board Meeting was held Thursday morning, Oct. 5, at 9:30 a. m. Mrs. Edward Lyon, president, in the chair, Mrs. Joseph J. Meyer, recording secretary.

Board members present were:

Mrs. Edward Lyon	Mrs. W. S. Brenholtz
Mrs. L. D. Sargent	Mrs. W. Gilbert Tillman
Mrs. W. Burrill Odenatt	Mrs. Frank P. Dwyer
Mrs. Joseph J. Meyer	Mrs. Wm. H. Howell
Mrs. J. W. Shaffer	Mrs. J. H. Page
Mrs. Augustus S. Kech	Mrs. Clarence R. Phillips

Mrs. Lyon called the meeting to order.

A motion was made by Mrs. Odenatt and seconded by Mrs. Phillips that the reading of the minutes be dispensed with. Motion carried.

After much discussion a motion was made by Mrs. Page and seconded by Mrs. Odenatt that Periodic Health Examination and Public Health Education be combined during the administration of Mrs. Lyon. Motion carried.

A motion was made by Mrs. Page and seconded by Mrs. Kech that the February Board Meeting this year be conducted by mail. Motion carried.

Mrs. Lyon appointed a committee of three, consisting of Mrs. Augustus S. Kech, Mrs. W. Wayne Babcock, and Mrs. J. Newton Hunsberger to confer with the Advisory Board with regard to medical matters.

Mrs. Lyon presented the following names as chairmen of standing committees:

Archives—Mrs. David B. Ludwig, Pittsburgh; *Budget*—Mrs. John F. McCullough, Pittsburgh; *By-Laws*—Mrs. Walter S. Brenholtz, Williamsport; *District Councilor*—Mrs. Andrew L. Benson, Philipsburg; *Hygiene*—Mrs. William H. Howell, Altoona; *Legislative*—Mrs. Augustus S. Kech, Altoona; *Nominating*—Mrs. David H. Thomas, Lock Haven; *Periodic Health Examination and Public Health Education*—Mrs. E. Kirby Lawson; *Public Relations*—Mrs. Robert H. Jeffrey, Uniontown; *Publicity*—Mrs. Wilmer Krusen.

Mrs. Lyon expressed her appreciation for the work of the previous administration and set forth her policies for the coming year.

There being no further business, the meeting was adjourned.

Respectfully submitted,

ROSALIE M. (MRS. JOSEPH J.) MEYER,
Recording Secretary.

COUNTY AUXILIARY REPORTS

Blair.—The auxiliary was hostess to the visiting women who attended the Cancer Clinic held in the Joffa Mosque, Altoona, Thursday, June 28. At noon a luncheon was served and at this time the visiting women were personally introduced to the auxiliary members. After the luncheon, cards were played by those who did not wish to attend the lectures.

Among the guests was Mrs. Crile, wife of Dr. George Crile, of Cleveland, one of the lecturers.

On Tuesday, July 24, the auxiliary gathered at the summer cottage of Mrs. A. S. Brumbaugh near Roaring Spring, for an outing. Nineteen members and their friends gathered to enjoy the day.

At this time a short business meeting was held. The auxiliary voted to send \$75 to the State Medical Benevolence Fund this year. All the members were happy to be able to send this amount for such a worthy cause.

Chester.—The auxiliary deviated from its usual program. On Monday, July 30, a representative group enjoyed a pilgrimage to the Strath Haven Inn, Swarthmore, at which the meeting was held.

Mrs. U. Grant Gifford, the retiring president, in summing up the work of the year, stressed the accomplishments in the various lines of health and educational work, and her appreciation of being able to serve in the capacity of president. She then presented Mrs. Howard Mellor, president-elect.

Mrs. Mellor, public relations chairman, outlined in detail the plan to carry out the educational program sponsored by the County Medical Society during October and November and have these lectures on appendicitis, with its high mortality rate, and the high mortality and morbidity now attending childbirth, available to every community in Chester County, that the public may better understand preventive measures. These meetings are to be arranged by local groups assisted by members of the auxiliary and the lecture with film to be presented by a local physician in each community.

Mrs. John A. Farrell announced the district meeting to be held at Norristown, Sept. 13, after the transaction of routine business, and the report that to date the amount toward the Medical Benevolence Fund was \$100, the group felt well repaid for the year of effort, then adjourned for dinner.

Medical News**Birth**

TO DR. AND MRS. ROBERT S. LUCAS, Butler, a daughter, Sylvia MacDonald Lucas, May 22.

Marriages

MISS LILLIAN BURT, R.N., to Dr. J. Mallory Carlisle, both of Philadelphia, Aug. 16.

DR. PATRICIA HART DRANT, Philadelphia, to Mr. William Warren Rhodes, Wilmington, Del., Aug. 18.

MISS MARJORIE LOUISE ALBERTSON, daughter of Dr. Harry W. Albertson, Scranton, to Mr. John Harry Niemeyer, Aug. 15.

MISS JULIA BREDT, daughter of Dr. and Mrs. Charles E. Bredt, Mahanoy City, to Dr. Louis I. Goldberg, Philadelphia, July 26.

MISS ELIZABETH RATHFON BRENHOLTZ, daughter of Dr. and Mrs. Walter S. Brenholtz, Williamsport, to Mr. Joseph William Bower, Aug. 8.

MISS MARJORIE SMITH PATTERSON, daughter of Dr. and Mrs. Frank I. Patterson, Washington, to Mr. Carl W. Kaiser, Philadelphia, June 30.

MISS MARGARET JANE CONNER, daughter of Dr. and Mrs. Robert E. Conner, Hickory, to Mr. William Edward Patterson, Clairton, son of Dr. and Mrs. Frank I. Patterson, Washington, June 30.

Deaths

WILLIAM H. KASTEN, Lansford; Jefferson Medical College, 1893; June 5.

MRS. LULU S. KEHLER, wife of Dr. B. Frank Kehler, Philadelphia; aged 64; July 20.

MRS. ISABELL LINTON ANDERS, wife of Dr. J. Wesley Anders, Philadelphia; July 22.

CHARLES F. KEYSER, Duquesne; College of Physicians and Surgeons, Baltimore, 1886; in July.

WILLIAM EDGAR CHRISTIE, Philadelphia; Jefferson Medical College, 1917; aged 40; July 29.

WINFRED W. NUSS, Elkland; Hahnemann Medical College, Philadelphia, 1892; aged 67; May 1.

CLEMENT EMERSON SAYERS, Hawthorn; University of Pittsburgh School of Medicine, 1896; aged 67; in June.

BENJAMIN FRANKLIN BEALE, Duncannon; Medico-Chirurgical College of Philadelphia, 1901; aged 62; May 26.

FREDERICK AUGUSTINE RUPP, Lewistown; University of Pennsylvania School of Medicine, 1900; aged 58; July 23.

DAVID REEVES STOCKTON, Lancaster; Hahnemann Medical College of Philadelphia, 1900; aged 66; May 4, of chronic endocarditis.

CHARLES CECIL HUFF, Homestead; University of Michigan Homeopathic Medical School, 1881; aged 79; June 12, of heart disease.

ANDREW W. GOODWIN, Oil City; Cleveland Medical College, 1893; member of his county and State medical societies; on the staff of the Oil City Hospital; aged 64; June 18.

HENRY D. STICHTER, Philadelphia; University of Pennsylvania School of Medicine, 1889; aged 69; July 14, at Temple University Hospital, from carcinoma of the stomach. He is survived by his widow and a daughter.

LEWIS M. BRYSON, Paradise; Jefferson Medical College, 1879; aged 84; July 28. He began practice at Martinville and remained there for 13 years; removed to Paradise and continued his practice for 40 years. He was a member of his county and State medical societies, and the A. M. A. Two children survive.

MAX GREEN, Philadelphia; Jefferson Medical College, 1903; aged 65; suddenly at his home, Aug. 18. He was a widely known Hebrew scholar; founder of the Hebrew Reading Circle; member of his county and State medical societies; Fellow of the A.M.A.; on the staff of the Mt. Sinai Hospital. A widow and a son survive.

ALBERT JAMES STORM, Collingdale; Medico-Chirurgical College of Philadelphia, 1915; aged 47; July 14.

Dr. Storm was commissioned in the Medical Corps, U.S.A., in August, 1917, and after being stationed at Fort Oglethorpe, Ga., and the Bellevue Hospital, New York City, was sent overseas with the 144th Infantry. He was the victim of a gas attack in June, 1919, and returned to this country where he was attached to the Philadelphia office of the United States Veterans' Bureau for nearly 2 years. Illness, induced by the gas, forced him to retire from active work about 12 years ago. He is survived by his wife and 2 daughters.

Miscellaneous

DR. AND MRS. WILLIAM JOHN THUDIUM, Philadelphia, sailed recently for a trip to Europe.

DR. AND MRS. WILLIAM CAMPBELL POSEY and children, of Radnor, have returned recently from Europe.

DR. JOHN F. CULP, Harrisburg, has recovered sufficiently from his recent illness to resume his practice.

DR. RICHARD E. BRENNEMAN, Pittsburgh, has been appointed roentgen-ray therapist at the City Hospital, Meadville; he was formerly associated with Passavant and Presbyterian hospitals in Pittsburgh.

A BILL PENDING before the Louisiana Legislature prohibits "child marriages" between girls under 16 and youths under 18 years. Under existing law, girls 12 years old and boys 14 can marry in Louisiana.

DR. BRANSFORD LEWIS, St. Louis, was presented with a bronze plaque at the annual banquet of the American Urological Association in session at Atlantic City in recognition of his services in editing *The History of Urology*.

DR. DONALD GUTHRIE, surgeon-in-chief of the Robert Packer Hospital, Sayre, and president of The Medical Society of the State of Pennsylvania, received notice July 18 that he had been elected to membership in the Royal Academy of Medicine in Rome.

DR. JAMES M. ANDERS, Philadelphia, wishes to make general acknowledgment and to express his heartfelt thanks and deep appreciation for the more than 500 letters, cards, and telegrams received from his professional colleagues on the occasion of his 80th birthday.

DR. FREDERICK C. WARNSHUIS, secretary of the Michigan State Medical Society, and speaker of the House of Delegates of the A.M.A., has accepted the appointment of secretary and director of public relations of the California State Medical Society to become effective Oct. 1.

THE COMMITTEE ON AWARDS, Scientific Exhibit, of the A.M.A., deemed worthy of honorable mention at the Cleveland session that of Drs. W. Edward Chamberlain and Barton R. Young, Temple University Medical School, Philadelphia, for exhibit on primary bone tumors.

THE LOUISIANA STATE BOARD OF MEDICAL EXAMINERS adopted a resolution that became effective last December, requiring every graduate of a foreign medical school to have in addition a diploma from a medical college located in the United States and recognized by the board.

AT THE RECENT ANNUAL MEETING of the American Society for the Study of Goiter, held in Cleveland, Ohio, Julius R. Yung, Terre Haute, Ind., and Harold L. Foss, Danville, Pa., were elected president and vice president, respectively. The next annual meeting will be held in Salt Lake City, Utah.

DR. EDITH MACBRIDE-DEXTER, Sharon, was elected county chairman of the Democratic Committee of Mercer County, the first woman county chairman in the Democratic party in the State.

Dr. MacBride-Dexter was chairman of the Committee on Credentials of the House of Delegates of the State Society for several years.

DR. WILLIAM H. WALSH, hospital consultant, Chicago, sailed in July for London, where he will board a Soviet steamer for Leningrad. Dr. Walsh is making an independent study of health and hospital conditions and practices in the U.S.S.R. A few of the motion picture films on obstetrics, made by Dr. Joseph B. DeLee, Chicago, will be taken along for exhibition in the various medical schools in the Soviet Union.

BEGINNING SATURDAY MORNING, Oct. 6, there will be instituted at the Philadelphia General Hospital a series of Saturday morning clinics on practical medicine in all its phases, including medicine, surgery, and the surgical specialties, neurology, psychiatry, tuberculosis, pediatrics, roentgen ray and radiology, diseases of metabolism, and pathology. The clinics will be conducted by members of the hospital staff. Physicians and students throughout the State are cordially invited to attend.

THE INTERNATIONAL ASSEMBLY of the Inter-State Postgraduate Medical Association of North America will be held in the Public Auditorium, Philadelphia, Nov. 5 to 9. Many distinguished teachers and clinicians will appear on the program. A major list of the names of contributors to the program, with other information, appears on page vii of this JOURNAL. All members of The Medical Society of the State of Pennsylvania are cordially invited to attend. Registration fee of \$5 admits all members of the profession in good standing.

THE SIXTH POSTGRADUATE SEMINAR was held at the Robert Packer Hospital, Sayre, July 12. John A. Kolmer, Philadelphia, professor of practice of medicine, Temple University School of Medicine, gave a clinic on "Blood Dyscrasias." At the conclusion of the series

of seminars it was found that sufficient funds had been collected to support an extra seminar, which will be held in September. The officers of the Bradford County Society have received many expressions of satisfaction from the visiting physicians, and they feel that this is the beginning of further postgraduate work in their county.

THE COOK COUNTY GRADUATE SCHOOL OF MEDICINE (see page xvii) will offer on Oct. 22, a 2 weeks' intensive course in Internal Medicine and in Ear, Nose, and Throat; a 10 days' intensive course in Fractures and Traumatic Surgery. These courses will be given provided the required number of doctors are registered for the work; also, they will be limited as to the number permitted to take the work. The clinical work will be given in the Cook County Hospital, and the didactic work in the school building.

THE APPOINTMENT OF Dr. Charles F. Nassau, a former president of The Philadelphia County Medical Society, to the position of honorary president of the Da Costa Foundation reflects great credit upon those in charge of the administration of this foundation. This position was formerly held by the late Dr. W. W. Keen, who brought to it great distinction. The appointment of Dr. Nassau is an expression of rare judgment and brings to the office a surgeon ripe in experience and endowed with a keen intellect and mature judgment, and should effect a continuance of the high esteem in which the administration of this foundation is held.

THE PHILADELPHIA METABOLIC ASSOCIATION, organized early in the year and composed of physicians, graduate nurses, social workers, dietitians, and laymen who are interested in diabetes to further its study, improve the treatment, standardize the records, organize diabetic departments in hospitals, disseminate knowledge about the disease and protect the sufferer from inadequate treatment, nostrums, and expensive worthless substitutes, has established a free camp for diabetic children between the ages of 5 and 16 years. The camp is located at Blue Grass Lodge, Bustleton, Pa., and has cared for 32 children from Aug. 27 to Sept. 8. The Children's Country Week Association looks after the personnel and other details.

AN INTENSIVE SURVEY of poliomyelitis and encephalitis will be conducted by the Philadelphia Department of Public Health, in charge of the following special committee which has been appointed by Dr. J. Norman Henry, director of the Department of Health, Aug. 1: C. Y. White, A. M. Ornstein, George E. Johnson, P. F. Lucchesi, Randle C. Rosenberger, D. J. McCarthy, DeForest P. Willard, Frank W. Konzelmann, Edward A. Strecker, and Howard C. Carpenter.

The formation of the committee had no bearing on the incidence of these diseases in the community. The object is to study all questions relative to the epidemiology of these diseases and the method of conveyance, together with questions of susceptibility and contagion. Particular attention will be paid to the consideration of controlling any epidemics that might arise.

THE AMERICAN ASSOCIATION of the History of Medicine held its tenth annual meeting in Cleveland, O., June 11. The following from Pennsylvania participated: Dr. Edward B. Krumbhaar, Philadelphia, read a paper on "William Hunter of Newport," and also had an exhibit. Other exhibitors were Drs. Judson Daland and P. Brooke Bland, Philadelphia.

This association is a branch of the International Association of the History of Medicine; the membership fee is \$1.50 annually; membership with subscription to either *Janus* (German) or *Aesculape* (French) is \$4.50; membership and subscription to both journals is \$7.50. For membership, apply to Dr. E. J. G. Beardsley, secretary, 1919 Spruce Street, Philadelphia, Pa.

AT THE RECENT MEETING of the National Academy of Sciences, Dr. James B. Murphy, of the Rockefeller Institute of Medical Research, New York City, told of the

latest work on extracts made from normal growing animal tissue, which are used to inhibit the growth of certain types of cancerous tumors. The chemical composition of these extracts is unknown although its effects are partially known. The tumor-inhibiting substance has been found in tumors, in placental tissues, and in embryo skin. Injected into natural or spontaneous cancer of mice, "the inhibiting action is evident not only on local postoperative recurrences of the disease and on the growth of autografts where there is direct contact between the extract and the cancer cells, but is definitely observable when the test fluids are injected at a distance from established tumors." Dr. Murphy said that while "results seem to substantiate the suggestions that the inhibitor from tumors is similar to the balancing factor of normal tissues, and would give a possible insight into the mechanism involved in malignancy, the materials involved are too complex to justify a conclusion at this time."

THE PHILADELPHIA COUNTY MEDICAL SOCIETY extends to the ophthalmologists of the State of Pennsylvania, and especially to those affiliated with their County Committees on Conservation of Vision, a cordial invitation to attend a scientific meeting in the Hall of the County Society, 21st and Spruce Streets, Oct. 24, 1934, on the subject of ophthalmia neonatorum. A subcommittee of the local Conservation of Vision Committee under the leadership of Louis Lehrfeld, M.D., ophthalmologist to the Philadelphia General Hospital and neuro-ophthalmologist of the Wills Hospital, has undertaken, with the cooperation of the Department of Public Health of Philadelphia, an intensive study and survey of ophthalmia neonatorum in Philadelphia County to evaluate the influence of silver nitrate solution in the prevention of this malady. The results of this study have been most surprising and the committee wishes to place immediately the knowledge it has acquired before the physicians of the State.

The project was sponsored by the Philadelphia Committee on Conservation of Vision in affiliation with the Committee on Conservation of Vision of The Medical Society of the State of Pennsylvania, the Department of Public Health of Philadelphia, and the Philadelphia Health League and made possible by funds supplied by the Civil Works Administration.

The following have been invited to take part in the discussion of this all-important subject which challenges the specific properties of silver nitrate as a prophylactic in the prevention of ophthalmia neonatorum: William Campbell Posey, M.D., chairman, Philadelphia Committee on Conservation of Vision; Barton Cooke Hirst, M.D., professor of obstetrics, Graduate School of Medicine, University of Pennsylvania; S. McClintock Hamill, M.D., chairman, Emergency Child Health Committee, Commonwealth of Pennsylvania and The Medical Society of the State of Pennsylvania; Mr. Lewis H. Cariss, director, National Society for the Prevention of Blindness.

BEGINNING OCT. 6, clinics will be given each Saturday morning, from 11 to 1 o'clock, in the amphitheater of the Philadelphia General Hospital, 34th and Pine Sts., by members of the staff. They will cover a broad variety of medical and surgical subjects, presented in a practical way with demonstration of cases. The surgical clinics will not be operative clinics.

The clinics will be arranged and conducted in the interests of the general practitioner. They will be featured by a free discussion of the subjects presented, and will be open to the medical profession and students of medicine who are all cordially invited. No fee will be charged but physicians will be requested to show their license cards, and students, their matriculation cards. Those in attendance may be reached by telephone: Baring 1836—Extension 361.

These clinics will recall to some of the older members of the profession the well-known Saturday morning clinics which were so popular years ago.

In order further to serve the medical profession the following departmental conferences, already well estab-

lished, will be open to all physicians on presentation of their license cards: Monday, 1 p. m., radiology; 6:30 p. m., clinical pathologic. Thursday, 10:30 a. m., neurologic; 3:30 p. m., roentgen ray. Friday, 2 p. m., radium; 3:30 p. m., heart.

The following clinics will be conducted during next month: Oct. 6, 10:30 a. m., Introductory talks by J. Norman Henry, Director of Public Health, Philadelphia; W. G. Turnbull, superintendent, Philadelphia General Hospital; David Riesman, chairman of the general staff and president of the executive board of the Philadelphia General Hospital. 11:00 a. m. to 12:00 m., "Recognition of the Failing Heart," David Riesman and Thomas McMillan. 12:00 m. to 1:00 p. m., "The Neuroses as Encountered by the General Practitioner," Edward A. Strecker. *Chairman*, Russell S. Boles.

Oct. 13, 11:00 a. m. to 12:00 m., "Disturbances of Locomotion and their Meanings," J. W. McConnell; 12:00 m. to 1:00 p. m., "The Physical Signs of Pulmonary Tuberculosis," A. C. Morgan. *Chairman*, J. H. Clark.

Oct. 20, 11:00 a. m. to 12:00 m., "Fractures of the Long Bones," Hubley R. Owen; 12:00 m. to 1:00 p. m., "The Cerebral Apoplexies," D. J. McCarthy. *Chairman*, B. P. Widmann.

Oct. 27, 11:00 a. m. to 12:00 m., "Rheumatic Heart Disease," Robert Torrey; 12:00 m. to 1:00 p. m., "The Onset of Encephalitis in General Practice," Earl D. Bond. *Chairman*, J. W. McConnell.

Committee on Graduate and Undergraduate Instruction, Philadelphia General Hospital: Russell S. Boles, *chairman*, Jefferson H. Clark, J. W. McConnell, Bernard P. Widmann, John O. Bower.

Abstract of Report of The Public Relations Committee, New York State Medical Society

All activities of the Public Relations Committee of this Society have more or less bearing on the field of the committees of Public Health and Medical Education, Medical Economics, and Legislation. It might be considered that in many instances the Public Relations Committee is the one to prepare the way and arrange a portion, at least, of the coöperation required by the other committees. This is especially so in Public Health and Medical Economics, hence it can be readily seen that monthly conferences are most valuable.

The committee has constantly before it the necessity of forming contacts with the governmental and lay organizations and frequently meets representatives of such organizations in conference, smoothing out difficulties that have developed, and endeavoring to adjust them to meet present-day medical standards.

Conference with the Department of Correction resulted in full-time physicians being disallowed to do outside medical practice to the detriment of local physicians of a community.

Conference with the Department of Health has developed a more satisfactory understanding with regard to fees for the treatment of crippled children as well as an improved distribution of these cases to the surgeons of the state.

Deaf and Hard of Hearing.—Conferences with the New York League for the Hard of Hearing have resulted in a joint subcommittee of this committee and the Committee on Public Health and Medical Education being arranged, which subcommittee will work with the New York League for the Hard of Hearing, and endeavor to lead and direct their efforts. This subject is a new field and the need for study and strenuous work is very evident.

Regional Conferences.—This year again they are

holding regional meetings in different sections of the State and hearing from the chairmen of the Public Relations Committees of the several county medical societies invited to attend each conference. At these meetings the aims and purposes of the State Committee are outlined. Advice as to handling local medical questions is given, and the State Committee, in turn, learns at first hand just what is being done in each county with reference to the Public Relations of Medicine.

The ultimate success of the State Committee's efforts depends upon the activity of the individual county society committees.

Compensation of Physicians for Services Rendered Indigents.—Physicians are not concerned with the care of indigents for the purpose of gain but to render needed services in the prevention and treatment of disease. Compensation sufficient to protect physicians against economic loss is rightfully expected and should be provided from public funds. The Public Relations Committee doubts the wisdom of adopting a fee schedule—in itself—as a guide for compensating physicians for the care of indigents. The Committee is of the opinion that a committee in each county society should establish close coöperative relationship with government representatives. In conference they should decide the compensation to be paid physicians. It is to be especially stressed that compensation for the care of indigents will be minimum and not representative of charges made by physicians for like services rendered patients supporting themselves from personal funds. Coöperation between government welfare officials and duly elected representatives, preferably the Public Relations Committee, of the county medical society, should result in a satisfactory agreement.

Lectures to Medical Students.—Upon invitation from the deans of each of the 9 medical schools of New York State, it was arranged for a lecture to be given in each medical school, to the senior students, dealing with organized medicine and medical public relations. This is one of their most important activities for it is beginning with the young man before he is graduated and encourages him to become a real factor in the county and state medical society.

Future Work of the Committee.—Make competent surveys of the work of the medical profession in each county of the state; to stimulate and endeavor to activate county medical societies in developing the public relations of medicine; to stimulate the individual members of the profession into greater activity with reference to the public relations of medicine; to instruct the medical profession as to what is being done by lay organizations, and show them that one of the reasons why medicine may become socialized, and about the only reason, is because of medicine's unwillingness to work with other agencies who are trying to direct the trends of medical service. The sooner we take the first step, which is a completed survey in each county medical society, in directing the forces now trying to change the form of medical practice, the better it will be for the future of the medical profession; to exert greater effort to get the young doctors interested in their medical relations to the public and in their county society activities.

The work next year should be done in each county society. It is there that the problems must be solved.

If medicine in New York is going to escape socialization there must be a united profession in each county activating itself in the interests of a better and broader medical public relations, and assuming a leadership over all organizations having to do with the health problem. *New York State M. J.*, April 15, 1934.

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MEDICAL SCHOOLS OF PENNSYLVANIA

The University of Pennsylvania School of Medicine

The University of Pennsylvania commencement was held, June 20, 1934, at which 131 medical students received the degree; each of whom has obtained appointment as intern.

Alumni Day was on May 19, 1934, and many medical alumni returned to the University and attended clinics, *etc.*, arranged for their benefit, and a smoker.

During the past year, the following promotions have occurred: O. H. Perry Pepper, professor of medicine; Morton McCutcheon, associate professor of pathology; Frank A. Craig, David A. Farley, Thomas Fitz-Hugh, Jr., and Edward Rose, assistant professors of clinical medicine.

Rudolf Höber, formerly professor of physiology at the University of Kiel, will be at the University of Pennsylvania next year as visiting professor of physiology. He is already at work and will carry on research and teach some graduate students.

The painting of the "Agnew Clinic," is now part of the Century of Progress Exhibition of Paintings, at Chicago.

The number of applications for admission this spring declined slightly. A first-year class of 125 will be admitted in the fall.

The Jefferson Medical College

The 109th annual commencement was held in the American Academy of Music, June 1, 1934. The address was delivered by Ralph Dorn Hetzel, president, Pennsylvania State College, on "Some Current Assets and Liabilities."

The graduating class numbered 143 bringing the total number of graduates to 15,900. The graduates were registered from 24 different states and insular possessions and one foreign country; 45 were commissioned as first lieutenants in the Medical Officers' Reserve Corps of the United States Army.

The annual alumni dinner was held, May 31, at which time busts of Mr. Alba B. Johnson, president of the Board of Trustees, and Ross V. Patterson, dean of the College and Sutherland M. Prevost, Professor of Therapeutics, were presented to the College.

Announcement was made by Mr. Alba B. Johnson, president of the Board of Trustees, that Ross V. Patterson, dean of the College, had been elected Sutherland M. Prevost Professor of Therapeutics succeeding E. Quin Thornton, who has been made emeritus professor of therapeutics. Dr. Patterson is a graduate of the

Jefferson Medical College, Class of 1904, and has been dean of the College since 1906.

Michael A. Burns, associate professor of nervous and mental diseases has been elected professor of neurology. Dr. Burns is a graduate of the Jefferson Medical College, class of 1907, and has been connected with the teaching corps of the college since 1908.

The following promotions in the teaching corps have been made during the past session: John M. Fisher, clinical professor of gynecology; John T. Brundage, assistant professor of pharmacology; Robert M. Lukens, assistant professor of bronchoscopy and esophagoscopy; Henry B. Decker, associate in dermatology; Henry I. Seelaus, associate in surgery; Arthur J. Wagers, associate in laryngology; William J. Harrison, associate in ophthalmology; Harold W. Stewart, associate in pathology.

Temple University School of Medicine

The degree of doctor of medicine was conferred upon 118 members of the senior class at the commencement exercises in the Convention Hall, June 15, 1934. This is the largest class to graduate from the school of medicine.

At the alumni luncheon and business meeting held June 13, 1934, in the medical school building, the following officers were elected: S. Bruce Greenway, president; Griffith J. Ratcliffe, first vice-president; Kenneth Probst, second vice-president; and Reuben Friedman, secretary and treasurer.

Postgraduate clinics were given by members of the faculty of the school of medicine.

The alumni activities were brought to a close in the evening by the annual alumni banquet and dance at the Penn Athletic Club.

The faculty announced the promotion of Harry Z. Hibshman from clinical professor to professor of proctology.

Appointments: Morris Franklin, instructor in junior surgery. Advancements: Gerald H. J. Pearson, from lecturer to associate in pediatrics; Henry H. Perlman, from demonstrator to lecturer in pediatrics; Edward D. Atlee, from instructor to demonstrator in pediatrics; Charles R. Barr, Robert S. Heffner, and Joseph Levitsky, from clinical assistants to instructors in pediatrics; and, C. Kenneth Miller, from clinical assistant to instructor in obstetrics.

The University of Pittsburgh School of Medicine

The annual commencement was held June 6, 1934. The number of graduates was 65. The commencement address was delivered by Dr. Hugh Thompson Kerr. An Alumni Day was established June 2, by clinics in the various hospitals associated with the University. There was a luncheon at the Pittsburgh Athletic Association with a large attendance. The speaker was Ralph H. Boots, of the class of 1915, now associated with the Presbyterian Hospital, New York City. The subject of his paper was "A Medical Point of View Regarding Arthritic Disease." There was a large and enthusiastic audience composed of the faculty and alumni. In the evening, there was a dinner at which 231 were present, representing the faculty and classes since the organization of the school in 1887. Dean Raleigh R. Huggins presided. G. W. Hatfield, a member of the class of 1887, and A. LeGrand Runion of the class of 1888 were present. DeWayne G. Richey gave the address of the evening, his subject being "Historical Notes Concerning Medicine in Pittsburgh."

Woman's Medical College of Pennsylvania

Exercises marking the closing of the 84th annual session of the Woman's Medical College of Pennsylvania were held, June 6, 1934, at the Westside Presbyterian Church, Philadelphia. The degree of Doctor of Medicine was conferred upon 18 graduates. Hugh S. Cumming, surgeon-general of the United States Public Health Service, made the principal address.

Alice Catherine Evans, senior bacteriologist at the National Health Institute, Federal Public Health Service, received the honorary degree of Doctor of Medicine in recognition of her contribution to medical science in her studies of undulant fever during the past 10 or more years.

Announcement has been made of the opening of a Bronchoscopic Clinic at the Hospital of the Woman's Medical College of Pennsylvania and the appointment of Chevalier Jackson as professor of bronchoscopy and chief of the new clinic. Emily Lois Van Loon, professor of otolaryngology, has received the additional title of clinical professor of bronchoscopy. The division of orthopedics has been raised to the status of a major department, and Walter G. Elmer has been promoted to professor of orthopedics. A reorganization of the content of the course in this subject is designed to include in the preclinical curriculum applied living anatomy, body mechanics, and posture as foundation material for the practical work and clinical lectures which will follow in the third and fourth years of the medical course.

The Alumnae Association met for its annual alumnae day, June 5, 1934. Dr. Mary Bickings-Thornton, of Philadelphia, presided at the business and scientific sessions. The college gold medal was awarded to Alice Rogers-Easby, of Media, and May Sibley-Lee, of Haverford, members of the Class of 1884 who were present to celebrate their golden anniversary after 50 years in the practice of medicine. At the alumnae banquet on the evening of June 5, Catharine Macfarlane, professor of gynecology, was toastmaster, and 75 alumnae were in attendance.

Book Reviews

INDUSTRIAL TOXICOLOGY: Alice Hamilton, M.D., 329 pages. New York and London: Harper & Brothers, 1934. \$3.00.

Anything from the pen of Alice Hamilton on the subject of industrial health hazards is most welcome.

This volume is particularly acceptable as it presents briefly a review of the literature on the industrial poisons most commonly met in general practice.

The rarer toxic metals, on which it is usually difficult to find information, are presented in a group making reference to them easy.

All that is of value on the older poisons is presented briefly. The details concerning the blood picture found in these intoxications will be of great help in diagnosis. The figures on the maximum allowable concentrations of these poisons in the air of workrooms are most helpful to the industrial hygienist. In connection with lead it is to be regretted that the latest figures on allowable concentrations as published by the United States Public Health Service are not included.

The section on the effect of the petroleum derivatives is most timely in these days of their increasing use.

Not the least important feature is the bibliography with its 655 references to the original publications cited in the volume.

It is a book which should be in the hands of every physician practicing medicine in industrial centers, and of every one interested in industrial hygiene.

A subject index prepared by Dr. Hamilton is included.

THE MEDICOLEGAL NECROPSY. Edited by T. B. Magath, M.D., Mayo Clinic, Rochester, Minn. 167 pages with 63 illustrations. Price \$2.50. Williams & Wilkins Company, Baltimore, Md., 1934.

This publication represents a symposium held at the twelfth annual convention of the American Society of Clinical Pathologists, at Milwaukee, Wisconsin, June 9, 1933. It deals with the determination of the cause of death in supposedly criminal cases and in some others which are subject to review in courts of law. Useful as a reference book for medical and legal libraries.

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Louis Hamman, M.D., visiting physician, Johns Hopkins Hospital, Baltimore, Md. Volume II. Forty-fourth Series, 1934. J. B. Lippincott Co., Philadelphia, Montreal, London. \$3.00 net.

This volume contains 14 articles. Nine are concerned with surgical presentations, 3 with strictly medical; and 2 with pediatric subjects.

Each article has an excellent summary of the presentation and in combination the articles serve as an excellent "exercise for the pia mater."

A time of economic depression is the period in which physicians, one and all, should improve their professional status by painstaking work, increased hours of study and by systematic self instruction. Sublimating one's economic difficulties by increasing one's knowledge and efficiency is a practical and worth-while point of view.

A PRIMER FOR DIABETIC PATIENTS, A Brief Outline of the Treatment of Diabetes with Diet and Insulin, including Directions and Charts for the Use of Physicians in Planning Diet Prescriptions. Russell M. Wilder, M.D., professor and chief of the Department of Medicine of The Mayo Foundation, University of Minnesota; head of Section on General Metabolism, Division of Medicine, the Mayo Clinic. Fifth Edition, Reset. 172 pages. Philadelphia and London: W. B. Saunders Co., 1934. Cloth, \$1.75 net.

The fifth edition of the Primer was written by the author as a guide to diabetic patients and to physicians treating diabetics. It fulfills this purpose in all respects. It is written in nontechnical language, with medical terminology largely omitted. Nevertheless the assistance of a physician is required for its proper interpretation.

It contains simplified instructions for the use of insulin and for the planning of the diet for diabetics. The author discusses briefly but clearly the subject of diabetes as to its treatment and complications. The simpler laboratory tests that are essential for a diabetic to know are explained in detail.

This book will be an aid to the patient as well as the physician in treating diabetes.

MANAGEMENT OF FRACTURES, DISLOCATIONS, AND SPRAINS. By John Albert Key, B.S., M.D., clinical professor of orthopedic surgery, Washington University School of Medicine; associate surgeon, Barnes, Children's, and Jewish Hospitals, St. Louis, and H. Earle Conwell, M.D., F.A.C.S., orthopedic surgeon for the Tennessee Coal, Iron, & Railroad Company, Birmingham, Alabama; orthopedic chief of the traumatic and orthopedic services of the Employees' Hospital, Fairfield, Alabama; member of the Fracture Committee of the American College of Surgeons, and the advisory editorial staff of the *Journal of Bone and Joint Surgery*. Price, \$15. The C. V. Mosby Co., St. Louis, Mo. 1934.

A volume of more than 1100 pages written by two orthopedic surgeons—Dr. Key, a clinical professor, and

Dr. Conwell, an industrial surgeon. This would seem to afford an ideal blending of the theoretical and practical aspects of the subject. The forms of treatment described are those which they have used and found reliable and practicable. The descriptions are clear and full and supplemented by excellent illustrations and well reproduced roentgenograms. Emergency treatment and medicolegal aspects are allotted special chapters. Skull fractures and brain trauma are handled by a specialist in a well written chapter which summarizes the modern views on the subject. Fractures of the face are also described by a specialist. This is a well balanced book for student, general practitioner, and surgeon in this machine age.

THE JEW IN SCIENCE. Louis Gershenfeld. Distributed by the Jewish Publication Society of America, Philadelphia, Pa., U. S. A., 1934.

Science knows nothing of creed, race, caste, or nationality. It welcomes contributions to our knowledge from every source, particularly if such a contribution is directed to the alleviation of human suffering.

Dr. Gershenfeld has selected as his subject the "Jew in Science" and dedicates his book to "Albert Einstein, immortal scientist, great humanitarian—loyal Jew."

For years the author has been interested in science, Judaism, and scientists, and has presented the most important workers with brief comments concerning their accomplishments—men who have achieved real distinction in the realm of science.

He reviews the history of the Jewish race from the time of Abraham and detailing how Jews throughout all lands, though differing from each other in custom, habits, politically, economically, and in other ways, remain brothers in blood, and as Jews, even though dispersed throughout the world, they hold on to their faith and live on as a spiritual force by virtue of their religion and their calm courage and confident hope.

Very properly he speaks of the Jew in science, rather than of Jewish science. A quotation from an address on the "Jew" made by the late past-President Taft is significant: "No other people has ever been subjected to such continuous persecution in denial of opportunity to make a living, and pursuit of happiness, in humiliating restriction upon their liberty in exclusion from education and, indeed, in actual physical cruelty and massacre," and yet they have advanced to positions of prominence in all fields of endeavor.

The author has assembled the names of those men who have made valuable contributions in medicine, dentistry, pharmacy, anthropology, chemistry, botany, physics, and other fields of science.

The readers of this JOURNAL will be particularly interested in the Jewish workers in medical sciences. These names are listed under their various specialties—familiar names to the students of medical history from Maimonides to the present, and an interesting account is given of the restrictions and prohibitions placed upon Jewish practitioners of medicine.

Many scientists of the Jewish race have won the Nobel prize: Michelson in physics (1907) and Ehrlich in medicine (1908), and others.

In the roll of Pennsylvanians we recognize many familiar names: Jacob M. DaCosta—the ablest clinical teacher and diagnostician of his day; Isaac Hays, one of the early leaders in ophthalmology in America and eminent as the editor of *American Journal of Medical Science*. Jacob Da Silva Solis-Cohen, a leading laryngologist of this country; Jay Frank Schamberg of dermatologic fame; and other notable living medical men who are bringing honor and prestige to medicine in the Keystone State.

This book is timely in view of the fact that a great nation—noted for its contributions to science and its culture—has practically exiled a race which has added much to its literature and contributed greatly to its scientific and literary prestige.

It is of interest not only to those of Jewish ancestry but to every educated, tolerant, and broadminded indi-

vidual who believes in freedom from prejudices and bigotry and desires to pay honor and tribute where such appreciation is due.

SPINAL ANESTHESIA—Technic and Clinical Application. George Rudolph Vehrs, M.D., Salem, Oregon. Price, \$5.50 net. C. V. Mosby Co., St. Louis, Mo., 1934.

The purpose of this monograph is to summarize in a practical way the existing knowledge of this important subject. The use of spinal anesthesia has passed through several distinct periods. Much controversy still remains as to its value, and such a text fulfills an urgent need and provides the surgical profession with an up-to-date compilation on a method of producing anesthesia that is rapidly coming into general use.

It is stated by the author that this book constitutes a survey of the experimental and clinical records in the field of spinal anesthesia for the past 49 years. The history of the subject is reviewed in a brief and interesting manner. The recommendation that a thorough knowledge of the anatomy and physiology of the voluntary nervous system as well as of the heart, vessels, and respiration, be acquired before using spinal anesthesia, is a most important one. In addition it is advised that the laws of affinity of analgesic and anesthetic drugs for nerve tissue be understood in order that the desired results may be obtained. The author points out that novocaine in general is the most satisfactory and safe to use, and by inference at least condemns all others.

In the chapter on the indications, contraindications, complications, and mortality, he discusses these subjects in a clear concise manner and provides the reader with much needed and valuable information. The subject matter dealing with the treatment of complications is worthy of favorable mention. The author goes into detail regarding the technic of giving spinal anesthesia. One is impressed by the fact that anesthesia can be controlled with accuracy and safety. It is to be pointed out, however, that such results can be obtained only by a thorough mastery of the entire subject, based on long experience with those who are familiar with it.

The chapters on the use of spinal anesthesia in children and in obstetrics bring out new fields of interest. The author wisely points out the limitations in this field, warning that the mortality is high, but is becoming lower each year as experience is gained.

A few misspelled words, some inaccuracies, and typographical errors in the book denote a lack of care in proof reading that somewhat mars a work otherwise well done. Nevertheless, this book is more or less new in its field and will undoubtedly be well received.

THE INTERNATIONAL MEDICAL ANNUAL OF 1934. A yearbook of treatment and practitioner's index. Edited by H. Letheby Tidy, M.D., F.R.C.P. physician, St. Thomas's Hospital, London; and A. Rendle Short, M.D., F.R.C.S., professor of surgery, University of Bristol. Price, cloth, \$6.00. William Wood & Co., Baltimore, Md., 1934.

This medical annual, edited by two prominent English physicians, reviews in a comprehensive manner the medical literature of the past year. The editors have supplemented the reviews with articles written by the contributors, in order to make the survey more comprehensive and complete. As a result, this annual covers in a most satisfactory manner the newer aspects of medicine, surgery, and the specialties.

The topics are gleaned from the foremost journals and bulletins of medicine; are reviewed and abbreviated by 35 eminent English writers and teachers of medicine. Each topic is so written that it contains "the meat" so to speak, of the original articles. This condensation is doubly attractive in that it leads to com-

(Concluded on page xiv.)

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BOOK REVIEWS

(Concluded from page 1136.)

pactness and, also, includes virtually all important factors of each article.

At the conclusion of each topic, reference is made to the source of the original statement. This enables the reader who so desires to secure more detailed information from the original paper.

The volume is profusely and well illustrated, containing 170 excellent plates and figures. Many plates are full page in size and some are colored, an important feature being their clearness.

The topics of this volume are arranged in alphabetical order together with many cross references. The general index and the index of contributors are so arranged as to make reference easy. The more important topics are in bold face type. The binding and paper are of good quality.

This medical annual should fill the need of those practitioners who desire to acquaint themselves with the newer developments. It is of great value to those who, though they do not have access to a large library nor to a great number of medical journals, nor the time to read the original articles, want to keep abreast with the progress of the time.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 14, Number 3 (Mayo Clinic Number—June, 1934). Octavo of 221 pages with 70 illustrations. Per Clinic Year, February, 1934, to December, 1934. Paper, \$12; cloth, \$16, net. Philadelphia and London: W. B. Saunders Co. 1934.

This volume illustrates again that comment with the report of cases enhances the value of the presentation. The articles on ulcer and carcinoma of the stomach are outstanding. A most interesting selection of cases are described.

THE MEDICAL AND ORTHOPEDIC MANAGEMENT OF CHRONIC ARTHRITIS, Ralph Pemberton, M.S., M.D., F.A.C.P., and Robert B. Osgood, A.B., M.D., F.A.C.S. The Macmillan Co., 1934. \$5.00 net.

Dr. Ralph Pemberton of the Graduate School of the University of Pennsylvania and Dr. Robert B. Osgood, professor emeritus of orthopedic surgery of the Harvard Medical School, have united in bringing to the general practitioner and orthopedic surgeon, a book on the medical and orthopedic management of chronic arthritis.

It leads by easy stages through the history, classification, pathology, general disturbances, treatment, and general handling of the cases. The language is simple and clear and easily understood. The book is adorned with a splendid bibliography so that one who wants to go further will find a full reference list to consult. Almost every form of treatment that has at any time been accredited in the treatment of arthritis is mentioned and evaluated which affords a practical, up-to-date summary of the present-day knowledge in the care of this most rebellious disease.

There is occasional repetition that should be eliminated, but in view of the general value of the work, this is of little moment. It is evident that such intensive study of the condition is necessary, not only to classify our present knowledge, but to advance our knowledge of the condition because from the present indications, there is much room for improvement in the care of rheumatoid arthritis.

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